

October 24, 2017

Pasco School District No. 1  
Attn: Randy D. Nunamaker, Executive Director of Operations  
1215 West Lewis Street  
Pasco, Washington, 99301

**RE: Winter 2016 Drinking Water Sampling Results  
Ellen Ochoa Middle School, 1801 East Sheppard Street, Pasco, Washington**

Dear Randy:

On Friday, November 11, 2016, Fulcrum Environmental Consulting, Inc. (Fulcrum) collected 61 drinking water samples for lead and copper analysis from Ellen Ochoa Middle School (School) located at 1801 East Sheppard Street in Pasco, Washington. Initial sampling identified one fixture location with a lead concentration above guidance levels and 14 fixture locations with copper concentrations above guidance levels. Fulcrum returned to the School to collect samples after remediation of the fixtures and found results 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-135<sup>1</sup>. 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 November 11, 2016. Initial results identified one sample with a lead concentration of 16 micrograms per liter (µg/L), above the Environmental Protection Agency (EPA) action level of 15 µg/L, and 14 samples with copper concentrations above the EPA action level of 1,300 µg/L. Upon receipt of results, Fulcrum and the District consulted with the Benton-Franklin Health District in development of a remedial action plan.

The fixture identified with an elevated lead concentration was replaced and preconditioned by running cold water continuously through the fixture for 24 hours, as specified in WAC 246-366A-130. Following replacement and preconditioning, Fulcrum returned to the School on January 20, 2017 and collected follow-

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

up samples to confirm the success of fixture replacement. Follow-up samples yielded results below the EPA action level, confirming fixture replacement was successful.

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 and installed filters at fixture locations that did not respond to aggressive flushing. Fulcrum returned on January 7, January 20, and March 29, July 25, August 8, October 18, and October 19, 2017 and collected samples to evaluate the success of the remediation. Follow-up samples found copper concentrations below the EPA action level, confirming the remediation was successful. Following sampling and review of laboratory results, Benton-Franklin Health District supported Fulcrum's recommendation and the District's request to return the 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 November 2021). See Figure 1 and Figure 2 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) in consultation with the Benton-Franklin Health District 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 on 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 locations 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 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 remedial sampling events are presented in Figure 2 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 one sample with a lead concentration of 16 µg/L, above the EPA action level of 15 µg/L, and 14 samples with copper concentrations above the EPA action level of 1,300 µg/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 lead concentrations, the District replaced the identified fixture. No fixtures of the same style were identified in the building. Fulcrum returned on January 20, 2017 following fixture replacement and preconditioning to collect follow-up samples from the initially identified fixtures.

To remediate elevated copper concentrations, the District completed an aggressive flush of the identified fixtures. The District replaced all classroom drinking fountains identified with elevated copper concentrations and installed filters on fixtures that did not respond to an aggressive flush. Fulcrum returned on the mornings following aggressive flushing, January 7, July 25, and August 8, 2017, to collect follow-up samples from the fixtures. Fulcrum returned to the school on March 29, 2017 and collected samples from a filtered fixture to evaluate effectiveness of the filter. In addition, Fulcrum collected a flush sample from the service connection on December 28, 2016 to evaluate the water quality of the water entering the building.

Analytical results from remedial sampling indicated the fixture replacement, aggressive flushing, and filter installation were successful at reducing lead and copper concentrations below action levels for the fixtures in question.

## Recommendations

One initial sample contained lead above the EPA action level of 15 µg/L and 14 initial samples contained copper above the EPA action level of 1,300 µg/L. The District replaced the identified fixture with elevated lead and preconditioned the fixture for 24 hours as specified in WAC 246-366A-130. The District completed an aggressive flush of the fixtures identified with elevated copper and installed filters on fixtures that did not respond to aggressive flushing. Follow-up sampling demonstrated that all lead and copper concentrations were below action levels. Following remedial sampling and review of laboratory results, Benton-Franklin Health District supported Fulcrum's recommendation and the District's request 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 November 2021).

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

Sincerely,



Amanda Enbysk, GIT  
Environmental Geologist



Ryan K. Mathews, CIH, CHMM  
Principal

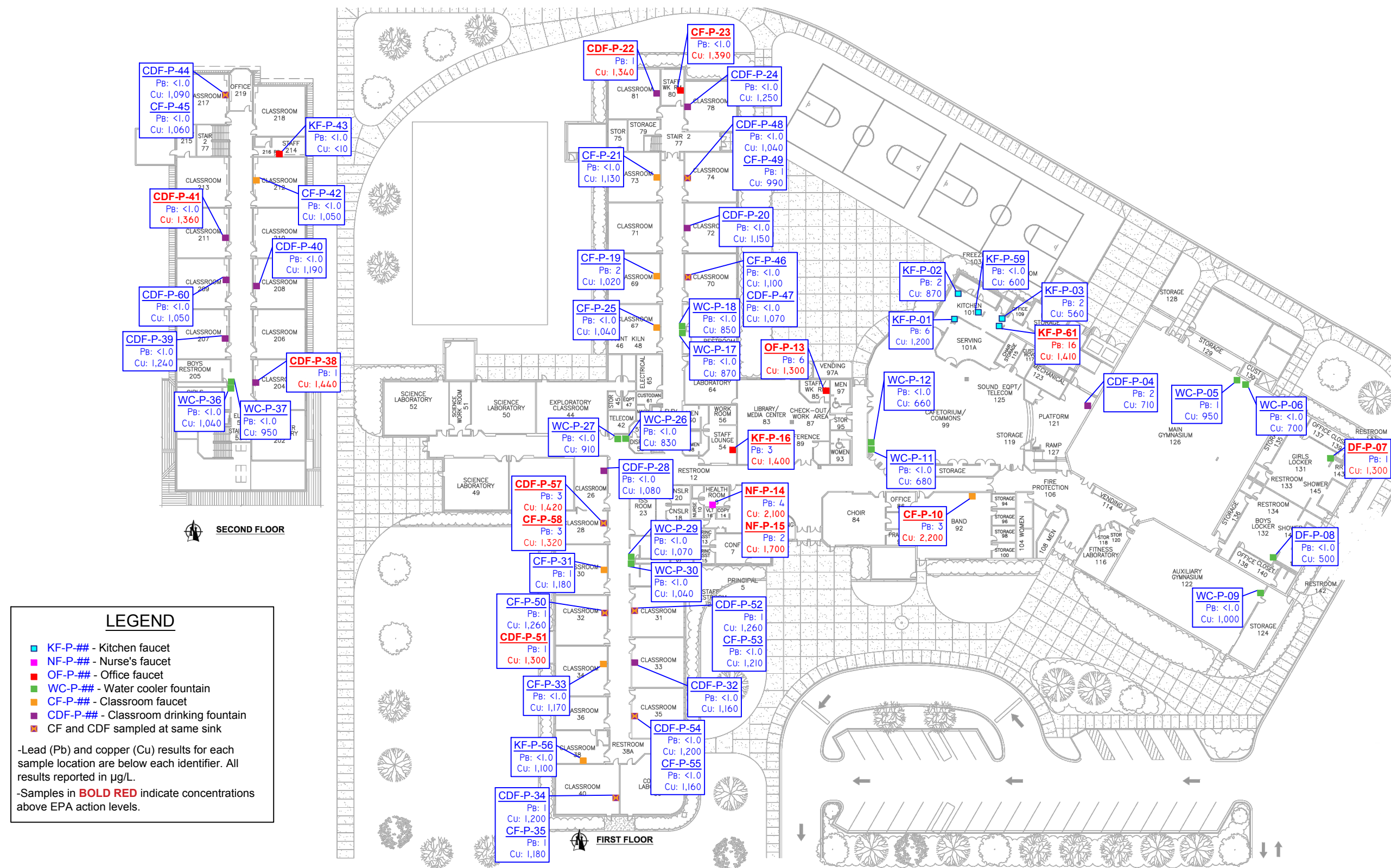


## **ATTACHMENT A**

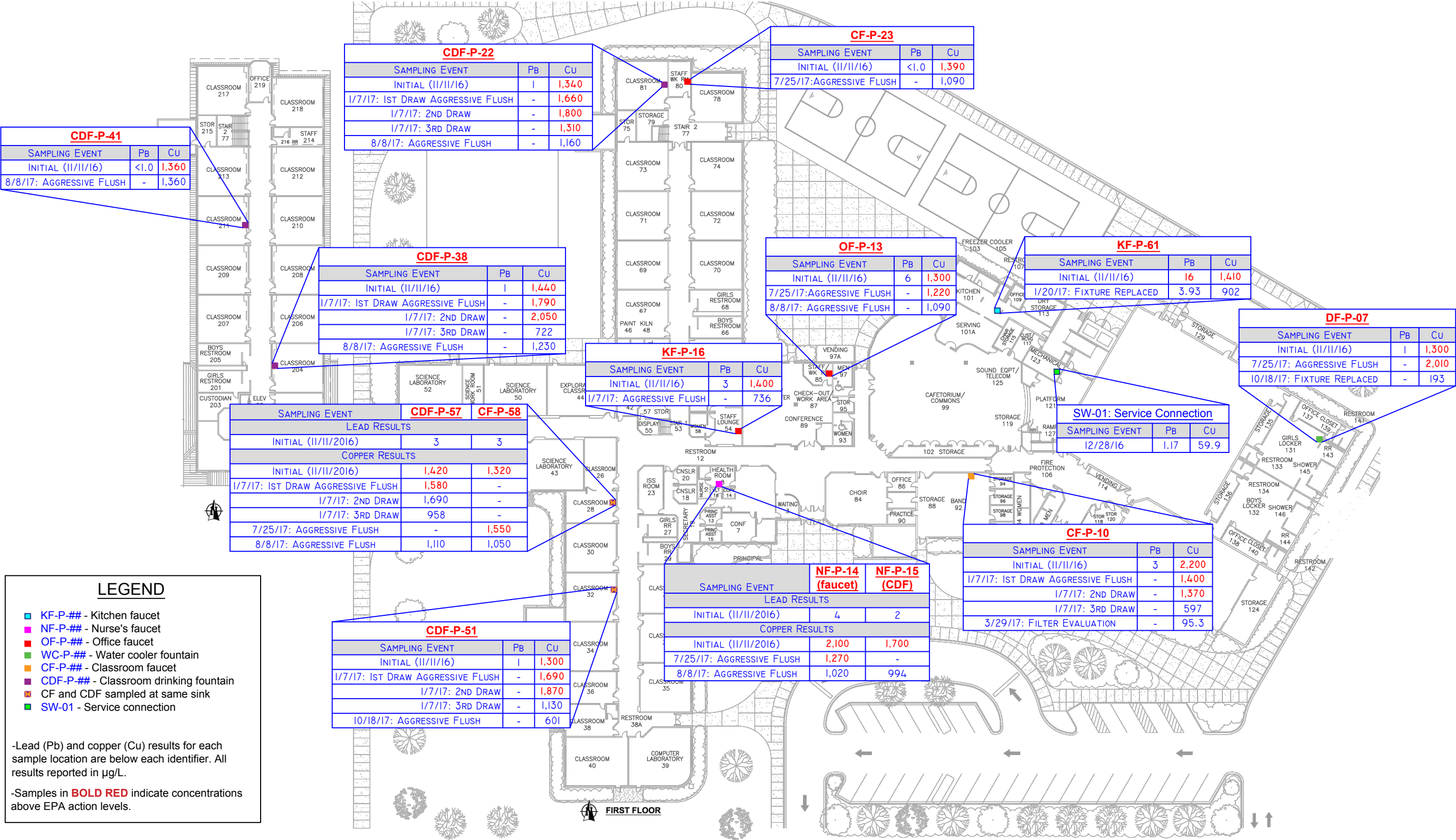
Figure 1: Initial Sample Location Map

Figure 2: Remedial Sample Location Map





DRAWING PROVIDED BY PASCO SCHOOL DISTRICT NO. 1



DRAWING PROVIDED BY PASCO SCHOOL DISTRICT NO. 1

## **ATTACHMENT B**

### Site-Specific Sampling and Analysis Plan

## Site-Specific Sampling and Analysis Plan

### Pasco School District No. 1 – 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: Ellen Ochoa Middle School Address: 1801 E. Sheppard Street, Pasco, WA 99301

☐ Elementary ☒ Middle School ☐ High School ☐ Administration

Date of Construction: 2002 Modernizations: N/A

| Fixture Type                                                                       | Fixture Locations | Fixture Styles <sup>1</sup> | Samples Collected | Ratio      |
|------------------------------------------------------------------------------------|-------------------|-----------------------------|-------------------|------------|
| Drinking fountain/water cooler (DF/WC)                                             | 18                | 3                           | 15                | 83%        |
| Kitchen Fixture (KF)                                                               | 7                 | 4                           | 5                 | 71%        |
| Classroom faucet, including faucets in Food Labs and Life Sciences Classrooms (CF) | 38                | 3                           | 17                | 45%        |
| Classroom drinking fountain at sink (CDF)                                          | 36                | 2                           | 20                | 56%        |
| Nurse's Office/Health Room (NF)                                                    | 1                 | 1                           | 1                 | 100%       |
| Teacher's Lounges/Work Rooms (OF)                                                  | 7                 | 2                           | 3                 | 43%        |
| <b>TOTALS</b>                                                                      | <b>107</b>        |                             | <b>61</b>         | <b>65%</b> |

1 Fixture styles are approximate based on sampler's observations

Lead Sampler: Levi Wyatt Date: 11/11/2016

Sample Prefix: OCH - 111116 -  - P (first-draw) - 01 to 63  
                     School Code      Date      Fixture Type      Sample Type      Sample Number

Laboratory: R. J. Lee Group, Columbia Basin Analytical Delivery Date: November 11, 2016

Comments:

-14 portables; unknown if they contain fixtures

## **ATTACHMENT C**

Table 1: Initial Sampling Analytical Results Summary Table

Table 2: pH and Temperature Data Summary Table

Table 3: Remedial Sampling Analytical Results Summary Table

**Table 1: Initial Sampling Analytical Results**

| Sample Identification and Location                                        | Fixture Type                       | Lead Results (µg/L) | Copper Results (µg/L) |
|---------------------------------------------------------------------------|------------------------------------|---------------------|-----------------------|
| OCH111116-KF-P-01: SE wall of kitchen, adjacent SW entrance               | Kitchen Faucet                     | 6                   | 1,200                 |
| OCH111116-KF-P-02: N. wall of kitchen, W. fixture                         | Kitchen Faucet                     | 2                   | 870                   |
| OCH111116-KF-P-03: N. wall of kitchen, E. fixture                         | Kitchen Faucet                     | 2                   | 560                   |
| OCH111116-CDF-P-04: Music Room, Classroom 121                             | Classroom Drinking Fountain        | 2                   | 710                   |
| OCH111116-WC-P-05: N. wall of gym, left fixture                           | Water Cooler Fountain              | 1                   | 950                   |
| OCH111116-WC-P-06: N. wall of gym, right fixture                          | Water Cooler Fountain              | <1.0                | 700                   |
| <b>OCH111116-DF-P-07: Girl's Locker Room</b>                              | <b>Drinking Fountain</b>           | <b>1</b>            | <b>1,300</b>          |
| OCH111116-DF-P-08: Boy's Locker Room                                      | Drinking Fountain                  | <1.0                | 500                   |
| OCH111116-WC-P-09: E. wall of Auxiliary Gym                               | Water Cooler Fountain              | <1.0                | 1,000                 |
| <b>OCH111116-CF-P-10: Band Room, Classroom 92</b>                         | <b>Classroom Faucet</b>            | <b>3</b>            | <b>2,200</b>          |
| OCH111116-WC-P-11: W. wall of Cafeteria, left fixture                     | Water Cooler Fountain              | <1.0                | 680                   |
| OCH111116-WC-P-12: W. wall of Cafeteria, right fixture                    | Water Cooler Fountain              | <1.0                | 660                   |
| <b>OCH111116-OF-P-13: Library Workroom</b>                                | <b>Office Faucet</b>               | <b>6</b>            | <b>1,300</b>          |
| <b>OCH111116-NF-P-14: Health Room, faucet</b>                             | <b>Nurse's Faucet</b>              | <b>4</b>            | <b>2,100</b>          |
| <b>OCH111116-NF-P-15: Health Room, drinking fountain</b>                  | <b>Classroom Drinking Fountain</b> | <b>2</b>            | <b>1,700</b>          |
| OCH111116-KF-P-16: Staff Lounge                                           | Office Faucet                      | 3                   | 1,400                 |
| OCH111116-WC-P-17: North hallway, right fixture opposite Room 64          | Water Cooler Fountain              | <1.0                | 870                   |
| OCH111116-WC-P-18: North hallway, left fixture opposite Room 64           | Water Cooler Fountain              | <1.0                | 850                   |
| OCH111116-CF-P-19: Classroom 69                                           | Classroom Faucet                   | 2                   | 1,020                 |
| OCH111116-CDF-P-20: Classroom 72                                          | Classroom Drinking Fountain        | <1.0                | 1,150                 |
| OCH111116-CF-P-21: Classroom 73                                           | Classroom Faucet                   | <1.0                | 1,130                 |
| <b>OCH111116-CDF-P-22: Classroom 81</b>                                   | <b>Classroom Drinking Fountain</b> | <b>1</b>            | <b>1,340</b>          |
| <b>OCH111116-CF-P-23: Classroom 80</b>                                    | <b>Office Faucet</b>               | <b>&lt;1.0</b>      | <b>1,390</b>          |
| OCH111116-CDF-P-24: Classroom 78                                          | Classroom Drinking Fountain        | <1.0                | 1,250                 |
| OCH111116-CF-P-25: Classroom 67                                           | Classroom Faucet                   | <1.0                | 1,040                 |
| OCH111116-WC-P-26: Right fixture in hallway adjacent south stairs         | Water Cooler Fountain              | <1.0                | 830                   |
| OCH111116-WC-P-27: Left fixture in hallway adjacent south stairs          | Water Cooler Fountain              | <1.0                | 910                   |
| OCH111116-CDF-P-28: Classroom 26                                          | Classroom Drinking Fountain        | <1.0                | 1,080                 |
| OCH111116-WC-P-29: S. hallway, left fixture opposite Classroom 28         | Water Cooler Fountain              | <1.0                | 1,070                 |
| OCH111116-WC-P-30: S. hallway, right fixture opposite Classroom 28        | Water Cooler Fountain              | <1.0                | 1,040                 |
| OCH111116-CF-P-31: Classroom 30                                           | Classroom Faucet                   | 1                   | 1,180                 |
| OCH111116-CDF-P-32: Classroom 33                                          | Classroom Drinking Fountain        | <1.0                | 1,160                 |
| OCH111116-CF-P-33: Classroom 34                                           | Classroom Faucet                   | <1.0                | 1,170                 |
| OCH111116-CDF-P-34: Classroom 40                                          | Classroom Drinking Fountain        | 1                   | 1,200                 |
| OCH111116-CF-P-35: Classroom 40                                           | Classroom Faucet                   | 1                   | 1,180                 |
| OCH111116-WC-P-36: 2nd floor hallway adjacent south stairs, left fixture  | Water Cooler Fountain              | <1.0                | 1,040                 |
| OCH111116-WC-P-37: 2nd floor hallway adjacent south stairs, right fixture | Water Cooler Fountain              | <1.0                | 950                   |
| <b>OCH111116-CDF-P-38: Classroom 204</b>                                  | <b>Classroom Drinking Fountain</b> | <b>1</b>            | <b>1,440</b>          |
| OCH111116-CDF-P-39: Classroom 207                                         | Classroom Drinking Fountain        | <1.0                | 1,240                 |
| OCH111116-CDF-P-40: Classroom 208                                         | Classroom Drinking Fountain        | <1.0                | 1,190                 |
| <b>OCH111116-CDF-P-41: Classroom 211</b>                                  | <b>Classroom Drinking Fountain</b> | <b>&lt;1.0</b>      | <b>1,360</b>          |
| OCH111116-CF-P-42: Classroom 212                                          | Classroom Faucet                   | <1.0                | 1,050                 |

| Sample Identification and Location                                 | Fixture Type                       | Lead Results (µg/L) | Copper Results (µg/L) |
|--------------------------------------------------------------------|------------------------------------|---------------------|-----------------------|
| OCH111116-KF-P-43: Staff Room 214                                  | Office Faucet                      | <1.0                | <10                   |
| OCH111116-CDF-P-44: Classroom 217                                  | Classroom Drinking Fountain        | <1.0                | 1,090                 |
| OCH111116-CF-P-45: Classroom 217                                   | Classroom Faucet                   | <1.0                | 1,060                 |
| OCH111116-CF-P-46: Classroom 70                                    | Classroom Faucet                   | <1.0                | 1,100                 |
| OCH111116-CDF-P-47: Classroom 70                                   | Classroom Drinking Fountain        | <1.0                | 1,070                 |
| OCH111116-CDF-P-48: Classroom 74                                   | Classroom Drinking Fountain        | <1.0                | 1,040                 |
| OCH111116-CF-P-49: Classroom 74                                    | Classroom Faucet                   | 1                   | 990                   |
| OCH111116-CF-P-50: Classroom 32                                    | Classroom Faucet                   | 1                   | 1,260                 |
| <b>OCH111116-CDF-P-51: Classroom 32</b>                            | <b>Classroom Drinking Fountain</b> | <b>1</b>            | <b>1,300</b>          |
| OCH111116-CDF-P-52: Classroom 31                                   | Classroom Drinking Fountain        | 1                   | 1,260                 |
| OCH111116-CF-P-53: Classroom 31                                    | Classroom Faucet                   | <1.0                | 1,210                 |
| OCH111116-CDF-P-54: Classroom 35                                   | Classroom Drinking Fountain        | <1.0                | 1,200                 |
| OCH111116-CF-P-55: Classroom 35                                    | Classroom Faucet                   | <1.0                | 1,160                 |
| OCH111116-KF-P-56: Classroom 38                                    | Classroom Faucet                   | <1.0                | 1,100                 |
| <b>OCH111116-CDF-P-57: Classroom 28</b>                            | <b>Classroom Drinking Fountain</b> | <b>3</b>            | <b>1,420</b>          |
| <b>OCH111116-CF-P-58: Classroom 28</b>                             | <b>Classroom Faucet</b>            | <b>3</b>            | <b>1,320</b>          |
| OCH111116-KF-P-59: Vat fill fixture in Kitchen                     | Kitchen Faucet                     | <1.0                | 600                   |
| OCH111116-CDF-P-60: Classroom 209                                  | Classroom Drinking Fountain        | <1.0                | 1,050                 |
| <b>OCH111116-KF-P-61: Food prep sink in east center of Kitchen</b> | <b>Kitchen Faucet</b>              | <b>16</b>           | <b>1,410</b>          |
| <i>OCH111116-CDF-P-62: Laboratory Spike - labeled Choir Room</i>   | <i>Lead and Copper Spike</i>       | <i>15</i>           | <i>1,320</i>          |
| <i>OCH111116-CF-P-63: Laboratory Blank - labeled Choir Room</i>    | <i>Distilled Water Blank</i>       | <i>&lt;1.0</i>      | <i>&lt;10</i>         |
| <b>EPA Action Level</b>                                            |                                    | <b>15</b>           | <b>1,300</b>          |

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

**Table 2: pH and Temperature Data Summary**

| Sample Number and Location                                  | pH Flush | pH Sample | Temperature Flush (°C) | Temperature Sample (°C) |
|-------------------------------------------------------------|----------|-----------|------------------------|-------------------------|
| OCH111116-KF-P-01: SE wall of kitchen, adjacent SW entrance | 8.72     | 8.30      | 19.4                   | 17.9                    |
| OCH111116-CDF-P-04: Music Room, Classroom 121               | 8.52     | 8.35      | 21.0                   | 20.4                    |
| OCH111116-DF-P-08: Boy's Locker Room                        | 8.59     | 8.38      | 14.2                   | 13.6                    |
| OCH111116-WC-P-12: West wall of Cafeteria, right fixture    | 8.29     | 8.18      | 23.3                   | 22.7                    |
| OCH111116-KF-P-16: Staff Lounge                             | 8.26     | 8.16      | 24.1                   | 23.5                    |
| OCH111116-CDF-P-20: Classroom 72                            | 8.21     | 8.19      | 22.7                   | 22.2                    |
| OCH111116-CDF-P-24: Classroom 78                            | 8.18     | 8.08      | 20.8                   | 19.8                    |
| OCH111116-CDF-P-28: Classroom 26                            | 8.16     | 8.12      | 22.7                   | 21.8                    |
| OCH111116-CDF-P-32: Classroom 33                            | 8.13     | 8.05      | 21.6                   | 20.9                    |
| OCH111116-CDF-P-40: Classroom 208                           | 8.00     | 8.02      | 21.5                   | 21.4                    |
| OCH111116-CDF-P-44: Classroom 217                           | 8.01     | 7.94      | 21.0                   | 20.2                    |
| OCH111116-CDF-P-48: Classroom 74                            | 8.06     | 7.95      | 22.0                   | 21.7                    |
| OCH111116-CDF-P-52: Classroom 31                            | 7.93     | 7.88      | 22.0                   | 20.8                    |

| Sample Number and Location        | pH Flush | pH Sample | Temperature Flush (°C) | Temperature Sample (°C) |
|-----------------------------------|----------|-----------|------------------------|-------------------------|
| OCH111116-KF-P-56: Classroom 38   | 7.96     | 8.08      | 21.2                   | 21.2                    |
| OCH111116-CDF-P-60: Classroom 209 | 7.97     | 8.08      | 22.4                   | 22.0                    |





Table 3: Remedial Sampling Analytical Results Summary

| Sampling Event                                                 | Sample Identification |              |              |              |         |         |              |         |              |          |              |              |              |           |       |                  |                 |
|----------------------------------------------------------------|-----------------------|--------------|--------------|--------------|---------|---------|--------------|---------|--------------|----------|--------------|--------------|--------------|-----------|-------|------------------|-----------------|
|                                                                | DF-P-07               | CF-P-10      | OF-P-13      | NF-P-14      | NF-P-15 | KF-P-16 | CDF-P-22     | CF-P-23 | CDF-P-38     | CDF-P-41 | CDF-P-51     | CDF-P-57     | CF-P-58      | KF-P-61   | SW-01 | CDF-P-62 (SW-03) | CF-P-63 (SW-02) |
| Lead Results                                                   |                       |              |              |              |         |         |              |         |              |          |              |              |              |           |       |                  |                 |
| Initial (11/11/2016)                                           | 1                     | 3            | 6            | 4            | 2       | 3       | 1            | <1.0    | 1            | <1.0     | 1            | 3            | 3            | <b>16</b> | -     | 15               | <1.0            |
| 12/28/2016: Source Water Evaluation                            | -                     | -            | -            | -            | -       | -       | -            | -       | -            | -        | -            | -            | -            | -         | 1.17  | 13.9             | <1.00           |
| 1/20/2017: Fixture Replaced                                    | -                     | -            | -            | -            | -       | -       | -            | -       | -            | -        | -            | -            | -            | 3.93      | -     | -                | -               |
| EPA Action Level                                               | 15                    | 15           | 15           | 15           | 15      | 15      | 15           | 15      | 15           | 15       | 15           | 15           | 15           | 15        | 15    | 15               | 15              |
| Copper Results                                                 |                       |              |              |              |         |         |              |         |              |          |              |              |              |           |       |                  |                 |
| Initial (11/11/2016)                                           | 1,300                 | 2,200        | 1,300        | 2,100        | 1,700   | 1,400   | 1,340        | 1,390   | 1,440        | 1,360    | 1,300        | 1,420        | 1,320        | 1,410     | -     | 1,320            | <10             |
| 12/28/2016: Source Water Evaluation                            | -                     | -            | -            | -            | -       | -       | -            | -       | -            | -        | -            | -            | -            | -         | 59.9  | 1,350            | <0.5            |
| 1/7/2017: Aggressive Flush, First Draw                         | -                     | <b>1,400</b> | -            | -            | -       | 736     | <b>1,660</b> | -       | <b>1,790</b> | -        | <b>1,690</b> | <b>1,580</b> | -            | -         | -     | 1,310            | <0.5            |
| 1/7/2017: Aggressive Flush, Second Draw                        | -                     | <b>1,370</b> | -            | -            | -       | -       | <b>1,800</b> | -       | <b>2,050</b> | -        | <b>1,870</b> | <b>1,690</b> | -            | -         | -     | -                | -               |
| 1/7/2017: Aggressive Flush, Third Draw                         | -                     | 597          | -            | -            | -       | -       | <b>1,310</b> | -       | 722          | -        | 1,130        | 958          | -            | -         | -     | -                | -               |
| 1/20/2017: Fixture Replaced                                    | -                     | -            | -            | -            | -       | -       | -            | -       | -            | -        | -            | -            | -            | 902       | -     | -                | -               |
| 3/29/2017: Filter Evaluation                                   | -                     | 95.3         | -            | -            | -       | -       | -            | -       | -            | -        | -            | -            | -            | -         | -     | 1,320            | <0.5            |
| 7/25/2017: Aggressive Flush                                    | <b>2,010</b>          | -            | <b>1,220</b> | <b>1,270</b> | -       | -       | -            | 1,090   | -            | -        | -            | -            | <b>1,550</b> | -         | -     | 1,250            | 0.674           |
| 8/8/2017: Full Building Aggressive Flush                       | -                     | -            | 1,090        | 1,020        | 994     | -       | 1,160        | -       | 1,230        | 1,360    | -            | 1,110        | 1,050        | -         | -     | 1,420            | <0.500          |
| 10/18 and 10/19/2017: Aggressive Flush and Fixture Replacement | 193                   | -            | -            | -            | -       | -       | -            | -       | -            | -        | 601          | -            | -            | -         | -     | 1,240            | 0.550           |
| 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        | 1,300        | 1,300        | 1,300     | 1,300 | 1,300            | 1,300           |

1 Results reported in micrograms per liter (µg/L) 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 action levels  
Results indicated in *italics* are quality assurance spike and blank samples

## **ATTACHMENT D**

### Initial Analytical Results



RJ LeeGroup, Inc. | Columbia Basin Analytical Laboratories

2710 North 20th Avenue, Pasco WA 99301

Tel: (509) 545-4989 | Fax: (509) 544-6010

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

**Subject: Chemical Analysis Report**

Columbia Basin Analytical Laboratories received 63 sample(s) on 11/11/16 for analysis. These sample(s) have been assigned a login order number of W611056. 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.

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:

A handwritten signature in black ink, appearing to read "Fernanda Pincheira".

12/16/16

Project Coordinator II, M. Fernanda Pincheira

Date

If you have any questions please feel free to contact Fernanda Pincheira at [MPincheira@rjleegroup.com](mailto:MPincheira@rjleegroup.com).



## Laboratory Report

Ryan Mathews

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

Client Project:

No Project

RJ Lee Group No.: W611056

COC No.:

Samples Received: 11/11/16

Analysis/Prep Date: 11/30/16

Report Date: 12/16/16

| <b>Sample Name:</b>    | OCH111116-KF-P-01 | <b>Matrix:</b> | Potable Water | <b>Date Received:</b> | 11/11/16 |
|------------------------|-------------------|----------------|---------------|-----------------------|----------|
| <b>RJ Lee Grp. ID:</b> | W611056-01        |                |               | <b>Date Analyzed:</b> | 11/30/16 |
| Analyte                | Method            | Result (mg/L)  | PQL (mg/L)    | Qualifiers            |          |
| Copper                 | EPA 200.8         | 1.2            | 0.1           |                       |          |
| Lead                   | EPA 200.8         | 0.006          | 0.001         |                       |          |

| <b>Sample Name:</b>    | OCH111116-KF-P-02 | <b>Matrix:</b> | Potable Water | <b>Date Received:</b> | 11/11/16 |
|------------------------|-------------------|----------------|---------------|-----------------------|----------|
| <b>RJ Lee Grp. ID:</b> | W611056-02        |                |               | <b>Date Analyzed:</b> | 11/30/16 |
| Analyte                | Method            | Result (mg/L)  | PQL (mg/L)    | Qualifiers            |          |
| Copper                 | EPA 200.8         | 0.87           | 0.01          |                       |          |
| Lead                   | EPA 200.8         | 0.002          | 0.001         |                       |          |

| <b>Sample Name:</b>    | OCH111116-KF-P-03 | <b>Matrix:</b> | Potable Water | <b>Date Received:</b> | 11/11/16 |
|------------------------|-------------------|----------------|---------------|-----------------------|----------|
| <b>RJ Lee Grp. ID:</b> | W611056-03        |                |               | <b>Date Analyzed:</b> | 11/30/16 |
| Analyte                | Method            | Result (mg/L)  | PQL (mg/L)    | Qualifiers            |          |
| Copper                 | EPA 200.8         | 0.56           | 0.01          |                       |          |
| Lead                   | EPA 200.8         | 0.002          | 0.001         |                       |          |

| <b>Sample Name:</b>    | OCH111116-CDF-P-04 | <b>Matrix:</b> | Potable Water | <b>Date Received:</b> | 11/11/16 |
|------------------------|--------------------|----------------|---------------|-----------------------|----------|
| <b>RJ Lee Grp. ID:</b> | W611056-04         |                |               | <b>Date Analyzed:</b> | 11/30/16 |
| Analyte                | Method             | Result (mg/L)  | PQL (mg/L)    | Qualifiers            |          |
| Copper                 | EPA 200.8          | 0.71           | 0.01          |                       |          |
| Lead                   | EPA 200.8          | 0.002          | 0.001         |                       |          |

| <b>Sample Name:</b>    | OCH111116-WC-P-05 | <b>Matrix:</b> | Potable Water | <b>Date Received:</b> | 11/11/16 |
|------------------------|-------------------|----------------|---------------|-----------------------|----------|
| <b>RJ Lee Grp. ID:</b> | W611056-05        |                |               | <b>Date Analyzed:</b> | 11/30/16 |
| Analyte                | Method            | Result (mg/L)  | PQL (mg/L)    | Qualifiers            |          |
| Copper                 | EPA 200.8         | 0.95           | 0.01          |                       |          |
| Lead                   | EPA 200.8         | 0.001          | 0.001         |                       |          |

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

WWW.RJLEEGROUP.COM

Report Template: GenMetalReportFull\_v12.rpt

Approved: 12/15/16 12:04  
Report Time Stamp: 12/16/16 14:17



**Sample Name:** OCH111116-WC-P-06 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-06

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.70          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-DF-P-07 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-07

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.3           | 0.1        |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-DF-P-08 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-08

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.50          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-WC-P-09 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-09

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.0           | 0.1        |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-10 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-10

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 2.2           | 0.1        |            |
| Lead    | EPA 200.8 | 0.003         | 0.001      |            |

**Sample Name:** OCH111116-WC-P-11 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-11

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.68          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |



**Sample Name:** OCH111116-WC-P-12 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-12

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.66          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-OF-P-13 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-13

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.3           | 0.1        |            |
| Lead    | EPA 200.8 | 0.006         | 0.001      |            |

**Sample Name:** OCH111116-NF-P-14 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-14

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 2.1           | 0.1        |            |
| Lead    | EPA 200.8 | 0.004         | 0.001      |            |

**Sample Name:** OCH111116-NF-P-15 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-15

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.7           | 0.1        |            |
| Lead    | EPA 200.8 | 0.002         | 0.001      |            |

**Sample Name:** OCH111116-KF-P-16 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-16

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.4           | 0.1        |            |
| Lead    | EPA 200.8 | 0.003         | 0.001      |            |

**Sample Name:** OCH111116-WC-P-17 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-17

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.87          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |



**Sample Name:** OCH111116-WC-P-18 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-18

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.85          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-19 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-19

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.02          | 0.01       |            |
| Lead    | EPA 200.8 | 0.002         | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-20 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-20

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.15          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-21 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-21

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.13          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-22 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-22

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.34          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-CF-P-23 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-23

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.39          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |



**Sample Name:** OCH111116-CDF-P-24 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-24

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.25          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-25 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-25

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.04          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-WC-P-26 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-26

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.83          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-WC-P-27 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-27

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.91          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-28 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-28

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.08          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-WC-P-29 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-29

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.07          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |



**Sample Name:** OCH111116-WC-P-30 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-30

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.04          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-31 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-31

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.18          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-32 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-32

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.16          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-33 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-33

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.17          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-34 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-34

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.20          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-CF-P-35 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-35

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.18          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |



**Sample Name:** OCH111116-WC-P-36 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-36

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.04          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-WC-P-37 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-37

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.95          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-38 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-38

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.44          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-39 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-39

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.24          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-40 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-40

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.19          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-41 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-41

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.36          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-42**Matrix:** Potable Water**Date Received:** 11/11/16**RJ Lee Grp. ID:** W611056-42**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.05          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-KF-P-43**Matrix:** Potable Water**Date Received:** 11/11/16**RJ Lee Grp. ID:** W611056-43**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | < 0.010       | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-44**Matrix:** Potable Water**Date Received:** 11/11/16**RJ Lee Grp. ID:** W611056-44**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.09          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-45**Matrix:** Potable Water**Date Received:** 11/11/16**RJ Lee Grp. ID:** W611056-45**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.06          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-46**Matrix:** Potable Water**Date Received:** 11/11/16**RJ Lee Grp. ID:** W611056-46**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.10          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-47**Matrix:** Potable Water**Date Received:** 11/11/16**RJ Lee Grp. ID:** W611056-47**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.07          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |



**Sample Name:** OCH111116-CDF-P-48 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-48

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.04          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-49 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-49

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.99          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-CF-P-50 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-50

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.26          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-51 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-51

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.30          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-52 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-52

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.26          | 0.01       |            |
| Lead    | EPA 200.8 | 0.001         | 0.001      |            |

**Sample Name:** OCH111116-CF-P-53 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-53

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.21          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |



**Sample Name:** OCH111116-CDF-P-54 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-54

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.20          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CF-P-55 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-55

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.16          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-KF-P-56 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-56

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.10          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-57 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-57

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.42          | 0.01       |            |
| Lead    | EPA 200.8 | 0.003         | 0.001      |            |

**Sample Name:** OCH111116-CF-P-58 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-58

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.32          | 0.01       |            |
| Lead    | EPA 200.8 | 0.003         | 0.001      |            |

**Sample Name:** OCH111116-KF-P-59 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-59

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 0.60          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |



**Sample Name:** OCH111116-CDF-P-60 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-60

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.05          | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |

**Sample Name:** OCH111116-KF-P-61 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-61

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.41          | 0.01       |            |
| Lead    | EPA 200.8 | 0.016         | 0.001      |            |

**Sample Name:** OCH111116-CDF-P-62 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-62

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | 1.32          | 0.01       |            |
| Lead    | EPA 200.8 | 0.015         | 0.001      |            |

**Sample Name:** OCH111116-CF-P-63 **Matrix:** Potable Water  
**RJ Lee Grp. ID:** W611056-63

**Date Received:** 11/11/16  
**Date Analyzed:** 11/30/16

| Analyte | Method    | Result (mg/L) | PQL (mg/L) | Qualifiers |
|---------|-----------|---------------|------------|------------|
| Copper  | EPA 200.8 | < 0.010       | 0.01       |            |
| Lead    | EPA 200.8 | < 0.001       | 0.001      |            |


**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*

**QA Officer/Organic Analytical SME John Coddington**

*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.*

# Request for Environmental and IH Laboratory Analytical Services

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|                                                                       |  |                                       |  |                                            |  |                                               |  |                                  |  |                                                 |  |
|-----------------------------------------------------------------------|--|---------------------------------------|--|--------------------------------------------|--|-----------------------------------------------|--|----------------------------------|--|-------------------------------------------------|--|
| <b>ATTENTION TO:</b> Ryan Matthews                                    |  |                                       |  | <b>Purchase Order No.:</b> W611056         |  |                                               |  | <b>Client Job No.:</b> 161994.01 |  |                                                 |  |
| <b>Lab Use Only</b>                                                   |  | <b>Project No.:</b>                   |  | <b>Client No.:</b>                         |  | <b>Turnaround Request</b>                     |  | <b>Standard:</b> Yes No          |  | <b>If 'No', No. of Business Days:</b>           |  |
| <b>Date Logged In:</b>                                                |  | <b>Logged In By:</b>                  |  | <b>Name:</b> Amanda Embysk, Ryan Matthews  |  | <b>Drinking Water Sample Only</b>             |  | <b>System ID #:</b>              |  | <b>Accreditation (please list below):</b>       |  |
| <b>Company:</b> Fulcrum Environmental Consulting                      |  | <b>Address:</b> 406 North 2nd Street  |  | <b>City, State, Zip:</b> Yakima, WA, 98901 |  | <b>DOH Source #:</b>                          |  | <b>Multiple Sources #s:</b>      |  | <b>Sample Purpose:</b> Information X Regulatory |  |
| <b>Phone:</b> (509) 574-0839                                          |  | <b>Fax:</b> (509) 575-8453            |  | <b>Call with Verbal Results:</b>           |  | <b>Preservation:</b>                          |  | <b>Matrix:</b>                   |  | <b>Container:</b>                               |  |
| <b>Email Results To:</b> aembysk@fulcrum.net, cc: mathews@fulcrum.net |  | <b>Fax Results To:</b>                |  | <b>Name:</b> Lorie Boutillier              |  | <b>Unpres:</b> H <sub>2</sub> SO <sub>4</sub> |  | <b>WW=Wastewater</b>             |  | <b>SW=Surface Water</b>                         |  |
| <b>Company:</b> Fulcrum Environmental                                 |  | <b>Email:</b> lboutillier@fulcrum.net |  | <b>City, State, Zip:</b> Yakima, WA, 98901 |  | <b>4°C:</b> HCl                               |  | <b>GW=Groundwater</b>            |  | <b>DW=Drinking Water</b>                        |  |
| <b>Phone:</b> (509) 574-0839                                          |  | <b>Fax:</b> (509) 575-8453            |  | <b>City, State, Zip:</b> Yakima, WA, 98901 |  | <b>HNO<sub>3</sub>:</b> NaOH                  |  | <b>S=Soil/Sludge</b>             |  | <b>O=Oil</b>                                    |  |
| <b>Special Instructions</b>                                           |  | <b>Sample Description</b>             |  | <b>Sample Date</b>                         |  | <b>Start</b>                                  |  | <b>Stop</b>                      |  | <b>Wipe Area / Air Volume</b>                   |  |
| <b>Client Sample ID</b>                                               |  | <b>Sample Description</b>             |  | <b>Sample Date</b>                         |  | <b>Start</b>                                  |  | <b>Stop</b>                      |  | <b>Wipe Area / Air Volume</b>                   |  |
| OCH11116-KF-P-01                                                      |  | Kitchen faucet                        |  | 11/11/16                                   |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-KF-P-02                                                      |  | Kitchen faucet                        |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-KF-P-03                                                      |  | Kitchen faucet                        |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-CD-P-04                                                      |  | Room 121                              |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-UC-P-05                                                      |  | Gym                                   |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-UC-P-06                                                      |  | Gym                                   |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-DF-P-07                                                      |  | Girls Locker Room                     |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-DF-P-08                                                      |  | Boys Locker Room                      |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-UC-P-09                                                      |  | Aux Gym                               |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-CE-P-10                                                      |  | Room 92                               |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| OCH11116-UC-P-11                                                      |  | Cafeteria                             |  |                                            |  |                                               |  |                                  |  |                                                 |  |
| <b>Chain of Custody</b>                                               |  | <b>Relinquished By (Signature):</b>   |  | <b>Date:</b> 11/11/2016                    |  | <b>Time:</b>                                  |  | <b>Chain of Custody</b>          |  | <b>Received By (Signature):</b>                 |  |
| <b>Relinquished By (Print Name):</b>                                  |  | <b>Relinquished To:</b>               |  | <b>Method of Shipment:</b>                 |  | <b>Received By (Print Name):</b>              |  | <b>Received By (Signature):</b>  |  | <b>Date:</b> 11/11/16                           |  |
| <b>Company Name:</b>                                                  |  | <b>Method of Shipment:</b>            |  | <b>Time:</b>                               |  | <b>Received By (Print Name):</b>              |  | <b>Received By (Signature):</b>  |  | <b>Date:</b> 11/11/16                           |  |
| <b>Chain of Custody</b>                                               |  | <b>Relinquished By (Signature):</b>   |  | <b>Date:</b>                               |  | <b>Time:</b>                                  |  | <b>Chain of Custody</b>          |  | <b>Received By (Signature):</b>                 |  |
| <b>Relinquished By (Print Name):</b>                                  |  | <b>Relinquished To:</b>               |  | <b>Method of Shipment:</b>                 |  | <b>Received By (Print Name):</b>              |  | <b>Received By (Signature):</b>  |  | <b>Date:</b>                                    |  |
| <b>Company Name:</b>                                                  |  | <b>Method of Shipment:</b>            |  | <b>Time:</b>                               |  | <b>Received By (Print Name):</b>              |  | <b>Received By (Signature):</b>  |  | <b>Date:</b>                                    |  |



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RA\_12032015

# Request for Environmental and IH Laboratory Analytical Services

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|                                                         |  |                                                                         |  |                                                                                                                                                                                                                                      |  |                                                                                                         |  |
|---------------------------------------------------------|--|-------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------|--|
| <b>ATTENTION TO:</b> <i>Ryan Matthews</i>               |  |                                                                         |  | <b>Purchase Order No.:</b>                                                                                                                                                                                                           |  | <b>Client Job No.:</b> <i>161494.01</i>                                                                 |  |
| <b>Lab Use Only</b>                                     |  | <b>Project No.:</b>                                                     |  | <b>Client No.:</b>                                                                                                                                                                                                                   |  | <b>Turnaround Request</b>                                                                               |  |
| <b>Date Logged In:</b>                                  |  | <b>Logged In By:</b>                                                    |  | <b>Standard:</b> <b>Yes</b> <b>No</b> <b>If 'No,' No. of Business Days:</b>                                                                                                                                                          |  | <b>Sample Purpose:</b> <b>Information X</b> <b>Regulatory</b> <b>Accreditation</b> (please list below): |  |
| <b>Name:</b> Amanda Embysk, Ryan Matthews               |  | <b>Company:</b> Fulcrum Environmental Consulting                        |  | <b>System ID #:</b>                                                                                                                                                                                                                  |  | <b>DOH Source #:</b>                                                                                    |  |
| <b>Address:</b> 406 North 2nd Street                    |  | <b>City, State, Zip:</b> Yakima, WA, 98901                              |  | <b>Sample Purpose:</b> A <input type="checkbox"/> B <input type="checkbox"/> Other <input type="checkbox"/>                                                                                                                          |  | <b>Matrix:</b> WW=Wastewater GW=Groundwater S=Soil/Sludge E=Extract                                     |  |
| <b>Phone:</b> (509) 574-0839                            |  | <b>Fax:</b> (509) 575-8453                                              |  | <b>Preservation:</b> Unpres <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> 4°C <input type="checkbox"/> HCl <input type="checkbox"/> NaOH <input type="checkbox"/> Na <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> |  | <b>Container:</b> P=Plastic G=Glass W=Wipe A=Air (filter or tube)                                       |  |
| <b>Call with Verbal Results:</b>                        |  | <b>Email Results To:</b> aembysk@fulcrum.net, cc: rmatthews@fulcrum.net |  | <b>SW=Surface Water DW=Drinking Water O=Oil X=Other</b>                                                                                                                                                                              |  |                                                                                                         |  |
| <b>Fax Results To:</b>                                  |  | <b>Name:</b> Lorrie Boutillier                                          |  | <b>Company:</b> Fulcrum Environmental                                                                                                                                                                                                |  | <b>Email:</b> lboutillier@fulcrum.net                                                                   |  |
| <b>Send Invoice To</b>                                  |  | <b>Address:</b> 406 N 2nd Street                                        |  | <b>City, State, Zip:</b> Yakima, WA, 98901                                                                                                                                                                                           |  | <b>Phone:</b> (509) 574-0839 <b>Fax:</b> (509) 575-8453                                                 |  |
| <b>Special Instructions</b>                             |  | <b>Sample Description</b>                                               |  | <b>Sample Date</b>                                                                                                                                                                                                                   |  | <b>Sample Time</b>                                                                                      |  |
| <b>Client Sample ID</b>                                 |  | <b>Sample Description</b>                                               |  | <b>Start</b>                                                                                                                                                                                                                         |  | <b>Stop</b>                                                                                             |  |
| <b>Wipe Area / Air Volume</b>                           |  | <b>Sample Date</b>                                                      |  | <b>Start</b>                                                                                                                                                                                                                         |  | <b>Stop</b>                                                                                             |  |
| <b>Chain of Custody</b>                                 |  | <b>Relinquished By (Signature):</b> <i>[Signature]</i>                  |  | <b>Date:</b> <i>11/11/16</i>                                                                                                                                                                                                         |  | <b>Time:</b>                                                                                            |  |
| <b>Relinquished By (Print Name):</b> <i>Levi Wright</i> |  | <b>Relinquished To:</b>                                                 |  | <b>Method of Shipment:</b>                                                                                                                                                                                                           |  | <b>Chain of Custody</b>                                                                                 |  |
| <b>Company Name:</b> <i>Fulcrum</i>                     |  | <b>Date:</b> <i>11/11/16</i>                                            |  | <b>Time:</b>                                                                                                                                                                                                                         |  | <b>Received By (Signature):</b> <i>[Signature]</i>                                                      |  |
| <b>Relinquished By (Signature):</b> <i>[Signature]</i>  |  | <b>Date:</b> <i>11/11/16</i>                                            |  | <b>Time:</b>                                                                                                                                                                                                                         |  | <b>Received By (Print Name):</b> <i>[Signature]</i>                                                     |  |
| <b>Relinquished By (Print Name):</b> <i>Levi Wright</i> |  | <b>Relinquished To:</b>                                                 |  | <b>Method of Shipment:</b>                                                                                                                                                                                                           |  | <b>Company Name:</b> <i>Fulcrum</i>                                                                     |  |
| <b>Chain of Custody</b>                                 |  | <b>Relinquished By (Signature):</b> <i>[Signature]</i>                  |  | <b>Date:</b> <i>11/11/16</i>                                                                                                                                                                                                         |  | <b>Time:</b>                                                                                            |  |
| <b>Relinquished By (Print Name):</b> <i>Levi Wright</i> |  | <b>Relinquished To:</b>                                                 |  | <b>Method of Shipment:</b>                                                                                                                                                                                                           |  | <b>Chain of Custody</b>                                                                                 |  |
| <b>Company Name:</b> <i>Fulcrum</i>                     |  | <b>Date:</b> <i>11/11/16</i>                                            |  | <b>Time:</b>                                                                                                                                                                                                                         |  | <b>Received By (Signature):</b> <i>[Signature]</i>                                                      |  |
| <b>Relinquished By (Signature):</b> <i>[Signature]</i>  |  | <b>Date:</b> <i>11/11/16</i>                                            |  | <b>Time:</b>                                                                                                                                                                                                                         |  | <b>Received By (Print Name):</b> <i>[Signature]</i>                                                     |  |
| <b>Relinquished By (Print Name):</b> <i>Levi Wright</i> |  | <b>Relinquished To:</b>                                                 |  | <b>Method of Shipment:</b>                                                                                                                                                                                                           |  | <b>Company Name:</b> <i>Fulcrum</i>                                                                     |  |



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Columbia Basin Analytical Laboratories  
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509.545.4989 Phone  
509.544.6010 Fax

RA\_12032015

# Request for Environmental and IH Laboratory Analytical Services

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|                                                                        |  |                      |  |                                                                                                                                                                                                                                                                                                                                        |  |                                         |  |
|------------------------------------------------------------------------|--|----------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------|--|
| <b>ATTENTION TO:</b> <u>Kyan Mathews</u>                               |  |                      |  | <b>Purchase Order No.:</b>                                                                                                                                                                                                                                                                                                             |  | <b>Client Job No.:</b> <u>161494.01</u> |  |
| <b>Lab Use Only</b>                                                    |  | <b>Project No.:</b>  |  | <b>Client No.:</b>                                                                                                                                                                                                                                                                                                                     |  | <b>Turnaround Request</b>               |  |
| <b>Date Logged In:</b>                                                 |  | <b>Logged In By:</b> |  | <b>Standard:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                   |  | <b>If 'No,' No. of Business Days:</b>   |  |
| <b>Name:</b> Amanda Embysk, Ryan Mathews                               |  |                      |  | <b>Sample Purpose:</b> <input checked="" type="checkbox"/> Information <input type="checkbox"/> Regulatory <input type="checkbox"/> Accreditation (please list below):                                                                                                                                                                 |  |                                         |  |
| <b>Company:</b> Fulcrum Environmental Consulting                       |  |                      |  | <b>System ID #:</b>                                                                                                                                                                                                                                                                                                                    |  |                                         |  |
| <b>Address:</b> 406 North 2nd Street                                   |  |                      |  | <b>DOH Source #:</b>                                                                                                                                                                                                                                                                                                                   |  |                                         |  |
| <b>City, State, Zip:</b> Yakima, WA, 98901                             |  |                      |  | <b>Multiple Sources #s:</b>                                                                                                                                                                                                                                                                                                            |  |                                         |  |
| <b>Phone:</b> (509) 574-0839                                           |  |                      |  | <b>Sample Purpose:</b> <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> Other <input type="checkbox"/>                                                                                                                                                                                                   |  |                                         |  |
| <b>Fax:</b> (509) 575-8453                                             |  |                      |  | <b>Preservation:</b> <input type="checkbox"/> Unpres <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> 4°C <input type="checkbox"/> HCl <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> Na <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Other |  |                                         |  |
| <b>Call with Verbal Results:</b>                                       |  |                      |  | <b>Matrix:</b> <input type="checkbox"/> WW=Wastewater <input type="checkbox"/> GW=Groundwater <input type="checkbox"/> S=Soil/Sludge <input type="checkbox"/> E=Extract                                                                                                                                                                |  |                                         |  |
| <b>Email Results To:</b> aembysk@fulcrum.net, cc: rmathews@fulcrum.net |  |                      |  | <b>Container:</b> <input type="checkbox"/> P=Plastic <input type="checkbox"/> G=Glass <input type="checkbox"/> W=Wipe <input type="checkbox"/> A=Air (filter or tube)                                                                                                                                                                  |  |                                         |  |
| <b>Fax Results To:</b>                                                 |  |                      |  | <b>SW=Surface Water</b>                                                                                                                                                                                                                                                                                                                |  |                                         |  |
| <b>Name:</b> Lorrie Boutillier                                         |  |                      |  | <b>DW=Drinking Water</b>                                                                                                                                                                                                                                                                                                               |  |                                         |  |
| <b>Company:</b> Fulcrum Environmental                                  |  |                      |  | <b>O=Oil</b>                                                                                                                                                                                                                                                                                                                           |  |                                         |  |
| <b>Address:</b> 406 N 2nd Street                                       |  |                      |  | <b>X=Other</b>                                                                                                                                                                                                                                                                                                                         |  |                                         |  |
| <b>City, State, Zip:</b> Yakima, WA, 98901                             |  |                      |  | <b>Pres. Upon Receipt (Y/N)</b>                                                                                                                                                                                                                                                                                                        |  |                                         |  |
| <b>Phone:</b> (509) 574-0839                                           |  |                      |  | <b>Preservation</b>                                                                                                                                                                                                                                                                                                                    |  |                                         |  |
| <b>Fax:</b> (509) 575-8453                                             |  |                      |  | <b>Matrix</b>                                                                                                                                                                                                                                                                                                                          |  |                                         |  |
| <b>Special Instructions</b>                                            |  |                      |  | <b>Container Type</b>                                                                                                                                                                                                                                                                                                                  |  |                                         |  |
| <b>Client Sample ID</b>                                                |  |                      |  | <b>pH</b>                                                                                                                                                                                                                                                                                                                              |  |                                         |  |
| <b>Sample Description</b>                                              |  |                      |  | <b>No. Containers</b>                                                                                                                                                                                                                                                                                                                  |  |                                         |  |
| <b>Sample Date</b>                                                     |  |                      |  | <b>Wipe Area / Air Volume</b>                                                                                                                                                                                                                                                                                                          |  |                                         |  |
| <b>Sample Time</b>                                                     |  |                      |  | <b>Start</b>                                                                                                                                                                                                                                                                                                                           |  |                                         |  |
| <b>Stop</b>                                                            |  |                      |  | <b>End</b>                                                                                                                                                                                                                                                                                                                             |  |                                         |  |
| <b>Chain of Custody</b>                                                |  |                      |  | <b>Chain of Custody</b>                                                                                                                                                                                                                                                                                                                |  |                                         |  |
| <b>Relinquished By (Signature):</b> <u>[Signature]</u>                 |  |                      |  | <b>Received By (Signature):</b> <u>[Signature]</u>                                                                                                                                                                                                                                                                                     |  |                                         |  |
| <b>Relinquished By (Print Name):</b> <u>EVAN WICK</u>                  |  |                      |  | <b>Received By (Print Name):</b> <u>John Doe</u>                                                                                                                                                                                                                                                                                       |  |                                         |  |
| <b>Company Name:</b> <u>Fulcrum Environmental</u>                      |  |                      |  | <b>Company Name:</b> <u>RJ Lee Group</u>                                                                                                                                                                                                                                                                                               |  |                                         |  |
| <b>Date:</b> <u>11/11/16</u>                                           |  |                      |  | <b>Date:</b> <u>11/11/16</u>                                                                                                                                                                                                                                                                                                           |  |                                         |  |
| <b>Time:</b>                                                           |  |                      |  | <b>Time:</b>                                                                                                                                                                                                                                                                                                                           |  |                                         |  |
| <b>Relinquished To:</b>                                                |  |                      |  | <b>Relinquished To:</b>                                                                                                                                                                                                                                                                                                                |  |                                         |  |
| <b>Method of Shipment:</b>                                             |  |                      |  | <b>Method of Shipment:</b>                                                                                                                                                                                                                                                                                                             |  |                                         |  |
| <b>Chain of Custody</b>                                                |  |                      |  | <b>Chain of Custody</b>                                                                                                                                                                                                                                                                                                                |  |                                         |  |
| <b>Relinquished By (Signature):</b>                                    |  |                      |  | <b>Received By (Signature):</b>                                                                                                                                                                                                                                                                                                        |  |                                         |  |
| <b>Relinquished By (Print Name):</b>                                   |  |                      |  | <b>Received By (Print Name):</b>                                                                                                                                                                                                                                                                                                       |  |                                         |  |
| <b>Company Name:</b>                                                   |  |                      |  | <b>Company Name:</b>                                                                                                                                                                                                                                                                                                                   |  |                                         |  |
| <b>Date:</b>                                                           |  |                      |  | <b>Date:</b>                                                                                                                                                                                                                                                                                                                           |  |                                         |  |
| <b>Time:</b>                                                           |  |                      |  | <b>Time:</b>                                                                                                                                                                                                                                                                                                                           |  |                                         |  |
| <b>Relinquished To:</b>                                                |  |                      |  | <b>Relinquished To:</b>                                                                                                                                                                                                                                                                                                                |  |                                         |  |
| <b>Method of Shipment:</b>                                             |  |                      |  | <b>Method of Shipment:</b>                                                                                                                                                                                                                                                                                                             |  |                                         |  |

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DELIVERING SCIENTIFIC RESOLUTION

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# Request for Environmental and IH Laboratory Analytical Services

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|                             |  |                                                  |  |                                                                        |  |                        |  |
|-----------------------------|--|--------------------------------------------------|--|------------------------------------------------------------------------|--|------------------------|--|
| <b>ATTENTION TO:</b>        |  | <b>Project No.:</b>                              |  | <b>Client No.:</b>                                                     |  | <b>Client Job No.:</b> |  |
| <b>Lab Use Only</b>         |  | <b>Date Logged In:</b>                           |  | <b>Logged In By:</b>                                                   |  |                        |  |
| <b>Report Results To</b>    |  | <b>Name:</b> Amanda Enbysk, Ryan Mathews         |  | <b>Company:</b> Fulcrum Environmental Consulting                       |  |                        |  |
|                             |  | <b>Address:</b> 406 North 2nd Street             |  | <b>City, State, Zip:</b> Yakima, WA, 98901                             |  |                        |  |
|                             |  | <b>Phone:</b> (509) 574-0839                     |  | <b>Fax:</b> (509) 575-8453                                             |  |                        |  |
|                             |  | <b>Call with Verbal Results:</b>                 |  | <b>Email Results To:</b> aenbysk@fulcrum.net, cc: rmathews@fulcrum.net |  |                        |  |
|                             |  | <b>Fax Results To:</b>                           |  | <b>Name:</b> Lorrie Boutillier                                         |  |                        |  |
| <b>Send Invoice To</b>      |  | <b>Company:</b> Fulcrum Environmental            |  | <b>Email:</b> lboutillier@fulcrum.net                                  |  |                        |  |
|                             |  | <b>Address:</b> 406 N 2nd Street                 |  | <b>City, State, Zip:</b> Yakima, WA, 98901                             |  |                        |  |
|                             |  | <b>Phone:</b> (509) 574-0839                     |  | <b>Fax:</b> (509) 575-8453                                             |  |                        |  |
| <b>Special Instructions</b> |  |                                                  |  |                                                                        |  |                        |  |
| <b>Client Sample ID</b>     |  | <b>Sample Description</b>                        |  | <b>Sample Date</b>                                                     |  | <b>Sample Time</b>     |  |
|                             |  |                                                  |  | <b>Start</b>                                                           |  | <b>Stop</b>            |  |
|                             |  |                                                  |  | <b>Wipe Area / Air Volume</b>                                          |  |                        |  |
| <b>Chain of Custody</b>     |  | <b>Relinquished By (Signature):</b>              |  | <b>Date:</b> 11/11/16                                                  |  | <b>Time:</b>           |  |
|                             |  | <b>Relinquished By (Print Name):</b> Lori Wright |  | <b>Relinquished To:</b>                                                |  |                        |  |
|                             |  | <b>Company Name:</b> fulcrum                     |  | <b>Method of Shipment:</b>                                             |  |                        |  |
| <b>Chain of Custody</b>     |  | <b>Relinquished By (Signature):</b>              |  | <b>Date:</b>                                                           |  | <b>Time:</b>           |  |
|                             |  | <b>Relinquished By (Print Name):</b>             |  | <b>Relinquished To:</b>                                                |  |                        |  |
|                             |  | <b>Company Name:</b>                             |  | <b>Method of Shipment:</b>                                             |  |                        |  |
| <b>Chain of Custody</b>     |  | <b>Received By (Signature):</b>                  |  | <b>Date:</b>                                                           |  | <b>Time:</b>           |  |
|                             |  | <b>Received By (Print Name):</b>                 |  | <b>Relinquished To:</b>                                                |  |                        |  |
|                             |  | <b>Company Name:</b>                             |  | <b>Method of Shipment:</b>                                             |  |                        |  |

|                                   |                                                                                                                                |                                                                     |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Purchase Order No.:</b>        | <b>Standard:</b> Yes No                                                                                                        | <b>If No, No. of Business Days:</b>                                 |
| <b>Turnaround Request</b>         | <b>Sample Purpose:</b> Information X Regulatory                                                                                | <b>Accreditation (please list below):</b>                           |
| <b>Drinking Water Sample Only</b> | <b>System ID #:</b>                                                                                                            |                                                                     |
|                                   | <b>DOH Source #:</b>                                                                                                           |                                                                     |
|                                   | <b>Multiple Sources #:</b>                                                                                                     |                                                                     |
| <b>Chemistry Analysis Key</b>     | <b>Preservation:</b> Unpres H <sub>2</sub> SO <sub>4</sub> 4°C HCl NaOH HNO <sub>3</sub> Other Na <sub>2</sub> SO <sub>4</sub> | <b>Matrix:</b> WW=Wastewater GW=Groundwater S=Soil/Sludge E=Extract |
|                                   | <b>Container:</b> P=Plastic G=Glass W=Wipe A=Air (filter or tube)                                                              |                                                                     |
| <b>Analysis Requested</b>         |                                                                                                                                |                                                                     |
| <b>EPA 200.8: Pb, Cu</b>          | <b>Pres. Upon Receipt (Y/N)</b>                                                                                                | <b>Preservation</b>                                                 |
|                                   |                                                                                                                                | <b>Matrix</b>                                                       |
|                                   |                                                                                                                                | <b>Container Type</b>                                               |
|                                   |                                                                                                                                | <b>pH</b>                                                           |
|                                   |                                                                                                                                | <b>No. Containers</b>                                               |



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|                 |
|-----------------|
| 18.1            |
| 18.9            |
| 19.5            |
| 19.8            |
| 19.7            |
| 19.4            |
| 19.6            |
| 19.5            |
| 19.3            |
| 19.2            |
| <del>19.2</del> |
| MK              |
| 11/11/16        |

# Request for Environmental and IH Laboratory Analytical Services

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|                                                                         |  |                                                 |  |                                                                                                      |  |                                       |  |
|-------------------------------------------------------------------------|--|-------------------------------------------------|--|------------------------------------------------------------------------------------------------------|--|---------------------------------------|--|
| <b>ATTENTION TO:</b> Ryan Matthews                                      |  |                                                 |  | <b>Purchase Order No.:</b>                                                                           |  | <b>Client Job No.:</b> 161978.61      |  |
| <b>Lab Use Only</b>                                                     |  | <b>Project No.:</b>                             |  | <b>Standard:</b> Yes No                                                                              |  | <b>If 'No', No. of Business Days:</b> |  |
| <b>Date Logged In:</b>                                                  |  | <b>Logged In By:</b>                            |  | <b>Sample Purpose:</b> Information X Regulatory Accreditation (please list below):                   |  |                                       |  |
| <b>Report Results To</b>                                                |  |                                                 |  | <b>Drinking Water</b>                                                                                |  |                                       |  |
| Name: Amanda Enbysk, Ryan Mathews                                       |  |                                                 |  | System ID #:                                                                                         |  |                                       |  |
| Company: Fulcrum Environmental Consulting                               |  |                                                 |  | DOH Source #:                                                                                        |  |                                       |  |
| Address: 406 North 2nd Street                                           |  |                                                 |  | Multiple Sources #s:                                                                                 |  |                                       |  |
| City, State, Zip: Yakima, WA, 98901                                     |  |                                                 |  | Sample Purpose: A <input type="checkbox"/> B <input type="checkbox"/> Other <input type="checkbox"/> |  |                                       |  |
| Phone: (509) 574-0839 Fax: (509) 575-8453                               |  |                                                 |  | Preservation: Matrix: WW=Wastewater GW=Groundwater S=Soil/Sludge E=Extract                           |  |                                       |  |
| Call with Verbal Results: aenbysk@fulcrum.net, cc: rmathews@fulcrum.net |  |                                                 |  | SW=Surface Water DW=Drinking Water O=Oil X=Other                                                     |  |                                       |  |
| Email Results To: aenbysk@fulcrum.net, cc: rmathews@fulcrum.net         |  |                                                 |  | Container: P=Plastic G=Glass W=Wipe A=Air (filter or tube)                                           |  |                                       |  |
| Fax Results To:                                                         |  |                                                 |  |                                                                                                      |  |                                       |  |
| Name: Lorie Boutilier                                                   |  |                                                 |  |                                                                                                      |  |                                       |  |
| Company: Fulcrum Environmental                                          |  |                                                 |  | Email: lboutilier@fulcrum.net                                                                        |  |                                       |  |
| Address: 406 N 2nd Street                                               |  |                                                 |  |                                                                                                      |  |                                       |  |
| City, State, Zip: Yakima, WA, 98901                                     |  |                                                 |  |                                                                                                      |  |                                       |  |
| Phone: (509) 574-0839 Fax: (509) 575-8453                               |  |                                                 |  |                                                                                                      |  |                                       |  |
| <b>Special Instructions</b>                                             |  |                                                 |  | <b>Analysis Requested</b>                                                                            |  |                                       |  |
| <b>Client Sample ID</b>                                                 |  | <b>Sample Description</b>                       |  | <b>Sample Date</b>                                                                                   |  | <b>Sample Time</b>                    |  |
|                                                                         |  |                                                 |  | <b>Start</b>                                                                                         |  | <b>Stop</b>                           |  |
|                                                                         |  |                                                 |  | <b>Wipe Area / Air Volume</b>                                                                        |  |                                       |  |
| ACH11116-CF-P-55                                                        |  | Room 35                                         |  | 11/11/16                                                                                             |  |                                       |  |
| ACH11116-KF-P-56                                                        |  | Room 38                                         |  |                                                                                                      |  |                                       |  |
| ACH11116-CDF-P-57                                                       |  | Room 28                                         |  |                                                                                                      |  |                                       |  |
| ACH11116-CF-P-58                                                        |  | Room 28                                         |  |                                                                                                      |  |                                       |  |
| ACH11116-KF-P-59                                                        |  | Kitchen - Valt                                  |  |                                                                                                      |  |                                       |  |
| ACH11116-CDF-P-60                                                       |  | Room 209                                        |  |                                                                                                      |  |                                       |  |
| ACH11116-KF-P-61                                                        |  | Kitchen Faucet                                  |  |                                                                                                      |  |                                       |  |
| ACH11116-CDF-P-62                                                       |  | Choir Room                                      |  |                                                                                                      |  |                                       |  |
| ACH11116-CF-P-63                                                        |  | Choir Room                                      |  |                                                                                                      |  |                                       |  |
| <b>Chain of Custody</b>                                                 |  | <b>Relinquished By (Signature):</b> [Signature] |  | <b>Date:</b> 11/11/16                                                                                |  | <b>Time:</b>                          |  |
| <b>Relinquished By (Print Name):</b> Levi Wyatt                         |  | <b>Relinquished To:</b>                         |  | <b>Method of Shipment:</b>                                                                           |  |                                       |  |
| <b>Company Name:</b> Fulcrum                                            |  | <b>Chain of Custody</b>                         |  | <b>Received By (Signature):</b> [Signature]                                                          |  | <b>Date:</b> 11/11/16                 |  |
| <b>Relinquished By (Print Name):</b>                                    |  | <b>Received By (Print Name):</b> [Signature]    |  | <b>Relinquished To:</b>                                                                              |  | <b>Time:</b> 12:10                    |  |
| <b>Method of Shipment:</b>                                              |  | <b>Company Name:</b> [Signature]                |  | <b>Method of Shipment:</b>                                                                           |  |                                       |  |
| <b>Chain of Custody</b>                                                 |  | <b>Relinquished By (Signature):</b>             |  | <b>Date:</b>                                                                                         |  | <b>Time:</b>                          |  |
| <b>Relinquished By (Print Name):</b>                                    |  | <b>Relinquished To:</b>                         |  | <b>Method of Shipment:</b>                                                                           |  |                                       |  |
| <b>Company Name:</b>                                                    |  | <b>Received By (Signature):</b>                 |  | <b>Date:</b>                                                                                         |  | <b>Time:</b>                          |  |
| <b>Relinquished By (Print Name):</b>                                    |  | <b>Relinquished To:</b>                         |  | <b>Method of Shipment:</b>                                                                           |  |                                       |  |
| <b>Method of Shipment:</b>                                              |  | <b>Company Name:</b>                            |  | <b>Received By (Signature):</b>                                                                      |  | <b>Date:</b>                          |  |
| <b>Relinquished By (Print Name):</b>                                    |  | <b>Relinquished To:</b>                         |  | <b>Method of Shipment:</b>                                                                           |  |                                       |  |



**RJ LEE GROUP**  
DELIVERING SCIENTIFIC RESOLUTION

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## **ATTACHMENT E**

### Remedial Analytical Results





**Fremont**  
*Analytical*

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: Ochoa Middle Additional Water Sampling**

**Work Order Number: 1612280**

December 29, 2016

**Attention Ryan Mathews:**

Fremont Analytical, Inc. received 3 sample(s) on 12/29/2016 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)

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**CLIENT:** Fulcrum Environmental  
**Project:** Ochoa Middle Additional Water Sampling  
**Work Order:** 1612280

---

**Work Order Sample Summary**

---

| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
|---------------|------------------|---------------------|--------------------|
| 1612280-001   | OCH122816-SW-01  | 12/28/2016 1:30 PM  | 12/29/2016 9:06 AM |
| 1612280-002   | OCH122816-SW-02  | 12/28/2016 1:30 PM  | 12/29/2016 9:06 AM |
| 1612280-003   | OCH122816-SW-03  | 12/28/2016 1:30 PM  | 12/29/2016 9:06 AM |

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**CLIENT:** Fulcrum Environmental  
**Project:** Ochoa Middle Additional Water Sampling

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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:

1612280-001A 199172: Prep Comments for EPA200.8, Sample 1612280-001A: Turbidity: 0.14 NTU

1612280-002A 199173: Prep Comments for EPA200.8, Sample 1612280-002A: Turbidity: 0.07 NTU

1612280-003A 199174: Prep Comments for EPA200.8, Sample 1612280-003A: Turbidity: 0.16 NTU

**Qualifiers:**

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

**Acronyms:**

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



Work Order: 1612280

Date Reported: 12/29/2016

**CLIENT:** Fulcrum Environmental

**Project:** Ochoa Middle Additional Water Sampling

**Lab ID:** 1612280-001

**Client Sample ID:** OCH122816-SW-01

**Collection Date:** 12/28/2016 1:30:00 PM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 15794

Analyst: TN

|        |      |       |  |      |   |                       |
|--------|------|-------|--|------|---|-----------------------|
| Copper | 59.9 | 0.500 |  | µg/L | 1 | 12/29/2016 5:48:08 PM |
| Lead   | 1.17 | 1.00  |  | µg/L | 1 | 12/29/2016 5:48:08 PM |

**Lab ID:** 1612280-002

**Client Sample ID:** OCH122816-SW-02

**Collection Date:** 12/28/2016 1:30:00 PM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 15794

Analyst: TN

|        |    |       |  |      |   |                       |
|--------|----|-------|--|------|---|-----------------------|
| Copper | ND | 0.500 |  | µg/L | 1 | 12/29/2016 5:51:43 PM |
| Lead   | ND | 1.00  |  | µg/L | 1 | 12/29/2016 5:51:43 PM |

**Lab ID:** 1612280-003

**Client Sample ID:** OCH122816-SW-03

**Collection Date:** 12/28/2016 1:30:00 PM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 15794

Analyst: TN

|        |       |       |  |      |   |                       |
|--------|-------|-------|--|------|---|-----------------------|
| Copper | 1,350 | 0.500 |  | µg/L | 1 | 12/29/2016 5:55:19 PM |
| Lead   | 13.9  | 1.00  |  | µg/L | 1 | 12/29/2016 5:55:19 PM |



**Work Order:** 1612280  
**CLIENT:** Fulcrum Environmental  
**Project:** Ochoa Middle Additional Water Sampling

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|                           |                        |                    |           |                                  |                      |          |           |             |      |          |      |
|---------------------------|------------------------|--------------------|-----------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID <b>MB-15794</b> | SampType: <b>MBLK</b>  | Units: <b>µg/L</b> |           | Prep Date: <b>12/29/2016</b>     | RunNo: <b>33636</b>  |          |           |             |      |          |      |
| Client ID: <b>MBLKW</b>   | Batch ID: <b>15794</b> |                    |           | Analysis Date: <b>12/29/2016</b> | SeqNo: <b>638268</b> |          |           |             |      |          |      |
| Analyte                   | Result                 | RL                 | SPK value | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper                    | ND                     | 0.500              |           |                                  |                      |          |           |             |      |          |      |
| Lead                      | ND                     | 1.00               |           |                                  |                      |          |           |             |      |          |      |

|                            |                        |                    |           |                                  |                      |          |           |             |      |          |      |
|----------------------------|------------------------|--------------------|-----------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID <b>LCS-15794</b> | SampType: <b>LCS</b>   | Units: <b>µg/L</b> |           | Prep Date: <b>12/29/2016</b>     | RunNo: <b>33636</b>  |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>     | Batch ID: <b>15794</b> |                    |           | Analysis Date: <b>12/29/2016</b> | SeqNo: <b>638269</b> |          |           |             |      |          |      |
| Analyte                    | Result                 | RL                 | SPK value | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper                     | 102                    | 0.500              | 100.0     | 0                                | 102                  | 85       | 115       |             |      |          |      |
| Lead                       | 47.5                   | 1.00               | 50.00     | 0                                | 95.0                 | 85       | 115       |             |      |          |      |

|                                  |                        |                    |           |                                  |                      |          |           |             |      |          |      |
|----------------------------------|------------------------|--------------------|-----------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID <b>1612256-077ADUP</b> | SampType: <b>DUP</b>   | Units: <b>µg/L</b> |           | Prep Date: <b>12/29/2016</b>     | RunNo: <b>33636</b>  |          |           |             |      |          |      |
| Client ID: <b>BATCH</b>          | Batch ID: <b>15794</b> |                    |           | Analysis Date: <b>12/29/2016</b> | SeqNo: <b>638271</b> |          |           |             |      |          |      |
| Analyte                          | Result                 | RL                 | SPK value | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper                           | 42.2                   | 0.500              |           |                                  |                      |          |           | 41.71       | 1.28 | 30       |      |
| Lead                             | 46.5                   | 1.00               |           |                                  |                      |          |           | 45.59       | 1.93 | 30       |      |

|                                 |                        |                    |           |                                  |                      |          |           |             |      |          |      |
|---------------------------------|------------------------|--------------------|-----------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID <b>1612256-077AMS</b> | SampType: <b>MS</b>    | Units: <b>µg/L</b> |           | Prep Date: <b>12/29/2016</b>     | RunNo: <b>33636</b>  |          |           |             |      |          |      |
| Client ID: <b>BATCH</b>         | Batch ID: <b>15794</b> |                    |           | Analysis Date: <b>12/29/2016</b> | SeqNo: <b>638272</b> |          |           |             |      |          |      |
| Analyte                         | Result                 | RL                 | SPK value | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper                          | 240                    | 0.500              | 200.0     | 41.71                            | 99.4                 | 70       | 130       |             |      |          |      |
| Lead                            | 134                    | 1.00               | 100.0     | 45.59                            | 88.0                 | 70       | 130       |             |      |          |      |

|                                  |                        |                    |           |                                  |                      |          |           |             |      |          |      |
|----------------------------------|------------------------|--------------------|-----------|----------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID <b>1612256-077AMSD</b> | SampType: <b>MSD</b>   | Units: <b>µg/L</b> |           | Prep Date: <b>12/29/2016</b>     | RunNo: <b>33636</b>  |          |           |             |      |          |      |
| Client ID: <b>BATCH</b>          | Batch ID: <b>15794</b> |                    |           | Analysis Date: <b>12/29/2016</b> | SeqNo: <b>638273</b> |          |           |             |      |          |      |
| Analyte                          | Result                 | RL                 | SPK value | SPK Ref Val                      | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Copper                           | 231                    | 0.500              | 200.0     | 41.71                            | 94.5                 | 70       | 130       | 240.5       | 4.11 | 30       |      |



Date: 12/29/2016

**Work Order:** 1612280  
**CLIENT:** Fulcrum Environmental  
**Project:** Ochoa Middle Additional Water Sampling

**QC SUMMARY REPORT**  
**Drinking Water Metals by EPA Method 200.8**

|            |                 |           |           |             |      |                |            |             |        |          |      |
|------------|-----------------|-----------|-----------|-------------|------|----------------|------------|-------------|--------|----------|------|
| Sample ID  | 1612256-077AMSD | SampType: | MSD       | Units:      | µg/L | Prep Date:     | 12/29/2016 | RunNo:      | 33636  |          |      |
| Client ID: | BATCH           | Batch ID: | 15794     |             |      | Analysis Date: | 12/29/2016 | SeqNo:      | 638273 |          |      |
| Analyte    | Result          | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit  | RPD Ref Val | %RPD   | RPDLimit | Qual |
| Lead       | 132             | 1.00      | 100.0     | 45.59       | 86.5 | 70             | 130        | 133.6       | 1.15   | 30       |      |

Client Name: **FE**  
 Logged by: **Erica Silva**

Work Order Number: **1612280**  
 Date Received: **12/29/2016 9:06:00 AM**

## Chain of Custody

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

## Log In

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

## Special Handling (if applicable)

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

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

19. Additional remarks:

## Item Information

| Item # | Temp °C |
|--------|---------|
| Cooler | 2.3     |
| Sample | 3.2     |

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





**Fremont**  
*Analytical*

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: Pasco SD Ochoa MS Drinking Water Sampling**  
**Work Order Number: 1701051**

February 13, 2017

**Attention Ryan Mathews:**

Fremont Analytical, Inc. received 20 sample(s) on 1/9/2017 for the analyses presented in the following report.

***Drinking Water Metals by EPA Method 200.8***

This report consists of the following:

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

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

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

**CC:**  
Amanda Enbysk

**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampl  
**Work Order:** 1701051

## Work Order Sample Summary

| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received  |
|---------------|------------------|---------------------|---------------------|
| 1701051-001   | OCH1717-CDF-P-10 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-002   | OCH1717-CDF-S-10 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-003   | OCH1717-CDF-T-10 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-004   | OCH1717-KF-P-16  | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-005   | OCH1717-KF-S-16  | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-006   | OCH1717-KF-T-16  | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-007   | OCH1717-CDF-P-22 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-008   | OCH1717-CDF-S-22 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-009   | OCH1717-CDF-T-22 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-010   | OCH1717-CDF-P-38 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-011   | OCH1717-CDF-S-38 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-012   | OCH1717-CDF-T-38 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-013   | OCH1717-CDF-P-51 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-014   | OCH1717-CDF-S-51 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-015   | OCH1717-CDF-T-51 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-016   | OCH1717-CDF-P-57 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-017   | OCH1717-CDF-S-57 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-018   | OCH1717-CDF-T-57 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-019   | OCH1717-CDF-P-62 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |
| 1701051-020   | OCH1717-CDF-P-63 | 01/07/2017 9:00 AM  | 01/09/2017 11:10 AM |

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**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampling

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**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:**

1701051-001A 200404: Prep Comments for EPA200.8, Sample 1701051-001A: Turbidity: 0.18 NTU  
1701051-004A 200405: Prep Comments for EPA200.8, Sample 1701051-004A: Turbidity: 0.15 NTU  
1701051-007A 200406: Prep Comments for EPA200.8, Sample 1701051-007A: Turbidity: 0.14 NTU  
1701051-010A 200407: Prep Comments for EPA200.8, Sample 1701051-010A: Turbidity: 0.15 NTU  
1701051-013A 200408: Prep Comments for EPA200.8, Sample 1701051-013A: Turbidity: 0.15 NTU  
1701051-016A 200409: Prep Comments for EPA200.8, Sample 1701051-016A: Turbidity: 0.30 NTU  
1701051-019A 200410: Prep Comments for EPA200.8, Sample 1701051-019A: Turbidity: 0.21 NTU  
1701051-020A 200411: Prep Comments for EPA200.8, Sample 1701051-020A: Turbidity: 0.12 NTU  
1701051-002A 206558: Prep Comments for EPA200.8, Sample 1701051-002A: Turbidity: 0.00 NTU  
1701051-003A 206562: Prep Comments for EPA200.8, Sample 1701051-003A: Turbidity: 0.01 NTU  
1701051-008A 206563: Prep Comments for EPA200.8, Sample 1701051-008A: Turbidity: 0.00 NTU  
1701051-009A 206564: Prep Comments for EPA200.8, Sample 1701051-009A: Turbidity: 0.00 NTU  
1701051-011A 206565: Prep Comments for EPA200.8, Sample 1701051-011A: Turbidity: 0.00 NTU  
1701051-012A 206566: Prep Comments for EPA200.8, Sample 1701051-012A: Turbidity: 0.00 NTU  
1701051-014A 206567: Prep Comments for EPA200.8, Sample 1701051-014A: Turbidity: 0.00 NTU  
1701051-015A 206568: Prep Comments for EPA200.8, Sample 1701051-015A: Turbidity: 0.00 NTU  
1701051-017A 206569: Prep Comments for EPA200.8, Sample 1701051-017A: Turbidity: 0.00 NTU  
1701051-018A 206570: Prep Comments for EPA200.8, Sample 1701051-018A: Turbidity: 0.00 NTU

**Qualifiers:**

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

**Acronyms:**

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



## Analytical Report

Work Order: 1701051  
Date Reported: 2/13/2017

**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampling

**Lab ID:** 1701051-001  
**Client Sample ID:** OCH1717-CDF-P-10  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 15876 |    | Analyst: TN         |
| Copper                                                  | 1,400  | 0.500 |      | µg/L            | 1  | 1/9/2017 1:46:31 PM |

**Lab ID:** 1701051-002  
**Client Sample ID:** OCH1717-CDF-S-10  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 1,370  | 0.500 |      | µg/L            | 1  | 2/13/2017 1:21:11 PM |

**Lab ID:** 1701051-003  
**Client Sample ID:** OCH1717-CDF-T-10  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 597    | 0.500 |      | µg/L            | 1  | 2/13/2017 1:45:50 PM |



## Analytical Report

Work Order: 1701051  
Date Reported: 2/13/2017

**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampling

**Lab ID:** 1701051-004  
**Client Sample ID:** OCH1717-KF-P-16  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 15876 |    | Analyst: TN         |
| Copper                                                  | 736    | 0.500 |      | µg/L            | 1  | 1/9/2017 1:50:07 PM |

**Lab ID:** 1701051-007  
**Client Sample ID:** OCH1717-CDF-P-22  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 15876 |    | Analyst: TN         |
| Copper                                                  | 1,660  | 0.500 |      | µg/L            | 1  | 1/9/2017 1:53:43 PM |

**Lab ID:** 1701051-008  
**Client Sample ID:** OCH1717-CDF-S-22  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 1,800  | 0.500 |      | µg/L            | 1  | 2/13/2017 1:49:27 PM |



## Analytical Report

Work Order: 1701051  
Date Reported: 2/13/2017

**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampling

**Lab ID:** 1701051-009  
**Client Sample ID:** OCH1717-CDF-T-22  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 1,310  | 0.500 |      | µg/L            | 1  | 2/13/2017 1:53:03 PM |

**Lab ID:** 1701051-010  
**Client Sample ID:** OCH1717-CDF-P-38  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 15876 |    | Analyst: TN         |
| Copper                                                  | 1,790  | 0.500 |      | µg/L            | 1  | 1/9/2017 1:57:19 PM |

**Lab ID:** 1701051-011  
**Client Sample ID:** OCH1717-CDF-S-38  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 2,050  | 0.500 |      | µg/L            | 1  | 2/13/2017 1:56:39 PM |



## Analytical Report

Work Order: 1701051  
Date Reported: 2/13/2017

**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampling

**Lab ID:** 1701051-012  
**Client Sample ID:** OCH1717-CDF-T-38  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 722    | 0.500 |      | µg/L            | 1  | 2/13/2017 2:00:16 PM |

**Lab ID:** 1701051-013  
**Client Sample ID:** OCH1717-CDF-P-51  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 15876 |    | Analyst: TN         |
| Copper                                                  | 1,690  | 0.500 |      | µg/L            | 1  | 1/9/2017 2:00:55 PM |

**Lab ID:** 1701051-014  
**Client Sample ID:** OCH1717-CDF-S-51  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 1,870  | 0.500 |      | µg/L            | 1  | 2/13/2017 2:03:52 PM |



## Analytical Report

Work Order: 1701051  
Date Reported: 2/13/2017

**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampling

**Lab ID:** 1701051-015  
**Client Sample ID:** OCH1717-CDF-T-51  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 1,130  | 0.500 |      | µg/L            | 1  | 2/13/2017 2:07:29 PM |

**Lab ID:** 1701051-016  
**Client Sample ID:** OCH1717-CDF-P-57  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 15876 |    | Analyst: TN         |
| Copper                                                  | 1,580  | 0.500 |      | µg/L            | 1  | 1/9/2017 2:04:30 PM |

**Lab ID:** 1701051-017  
**Client Sample ID:** OCH1717-CDF-S-57  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 |    | Analyst: TN          |
| Copper                                                  | 1,690  | 0.500 |      | µg/L            | 1  | 2/13/2017 2:11:05 PM |



## Analytical Report

Work Order: 1701051  
Date Reported: 2/13/2017

**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampling

**Lab ID:** 1701051-018  
**Client Sample ID:** OCH1717-CDF-T-57  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF          | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|-------------|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 16204 | Analyst: TN |                      |
| Copper                                                  | 958    | 0.500 |      | µg/L            | 1           | 2/13/2017 2:22:33 PM |

**Lab ID:** 1701051-019  
**Client Sample ID:** OCH1717-CDF-P-62  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF          | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|-------------|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 15876 | Analyst: TN |                     |
| Copper                                                  | 1,310  | 0.500 |      | µg/L            | 1           | 1/9/2017 2:08:06 PM |

**Lab ID:** 1701051-020  
**Client Sample ID:** OCH1717-CDF-P-63  
**Collection Date:** 1/7/2017 9:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF          | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|-------------|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 15876 | Analyst: TN |                     |
| Copper                                                  | ND     | 0.500 |      | µg/L            | 1           | 1/9/2017 2:11:42 PM |

**Work Order:** 1701051  
**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampl

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|            |          |           |           |             |      |                |           |             |        |          |      |
|------------|----------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | MB-16204 | SampType: | MBLK      | Units:      | µg/L | Prep Date:     | 2/13/2017 | RunNo:      | 34423  |          |      |
| Client ID: | MBLKW    | Batch ID: | 16204     |             |      | Analysis Date: | 2/13/2017 | SeqNo:      | 656975 |          |      |
| Analyte    | Result   | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |    |       |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|
| Copper | ND | 0.500 |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|

|            |           |                 |           |             |                          |          |                      |               |      |              |      |  |
|------------|-----------|-----------------|-----------|-------------|--------------------------|----------|----------------------|---------------|------|--------------|------|--|
| Sample ID  | LCS-16204 | SampType: LCS   |           |             | Units: µg/L              |          | Prep Date: 2/13/2017 |               |      | RunNo: 34423 |      |  |
| Client ID: | LCSW      | Batch ID: 16204 |           |             | Analysis Date: 2/13/2017 |          |                      | SeqNo: 656976 |      |              |      |  |
| Analyte    | Result    | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val   | %RPD | RPDLimit     | Qual |  |

|        |      |       |       |   |      |    |     |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|
| Copper | 98.1 | 0.500 | 100.0 | 0 | 98.1 | 85 | 115 |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|

|            |                  |           |           |                |           |            |           |             |       |          |      |
|------------|------------------|-----------|-----------|----------------|-----------|------------|-----------|-------------|-------|----------|------|
| Sample ID  | 1701051-002ADUP  | SampType: | DUP       | Units:         | µg/L      | Prep Date: | 2/13/2017 | RunNo:      | 34423 |          |      |
| Client ID: | OCH1717-CDF-S-10 | Batch ID: | 16204     | Analysis Date: | 2/13/2017 | SeqNo:     | 656978    |             |       |          |      |
| Analyte    | Result           | RL        | SPK value | SPK Ref Val    | %REC      | LowLimit   | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |

|        |       |       |  |  |  |  |  |       |      |    |  |
|--------|-------|-------|--|--|--|--|--|-------|------|----|--|
| Copper | 1,330 | 0.500 |  |  |  |  |  | 1,371 | 2.87 | 30 |  |
|--------|-------|-------|--|--|--|--|--|-------|------|----|--|

|            |                  |           |           |             |      |                |           |             |        |          |      |
|------------|------------------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1701051-002AMS   | SampType: | MS        | Units:      | µg/L | Prep Date:     | 2/13/2017 | RunNo:      | 34423  |          |      |
| Client ID: | OCH1717-CDF-S-10 | Batch ID: | 16204     |             |      | Analysis Date: | 2/13/2017 | SeqNo:      | 656981 |          |      |
| Analyte    | Result           | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |       |       |       |       |     |    |     |  |  |  |  |
|--------|-------|-------|-------|-------|-----|----|-----|--|--|--|--|
| Copper | 1,580 | 0.500 | 200.0 | 1,371 | 104 | 70 | 130 |  |  |  |  |
|--------|-------|-------|-------|-------|-----|----|-----|--|--|--|--|

|            |                  |           |           |             |      |                |           |             |        |          |      |
|------------|------------------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1701051-002AMSD  | SampType: | MSD       | Units:      | µg/L | Prep Date:     | 2/13/2017 | RunNo:      | 34423  |          |      |
| Client ID: | OCH1717-CDF-S-10 | Batch ID: | 16204     |             |      | Analysis Date: | 2/13/2017 | SeqNo:      | 656982 |          |      |
| Analyte    | Result           | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |       |       |       |       |      |    |     |       |      |    |  |
|--------|-------|-------|-------|-------|------|----|-----|-------|------|----|--|
| Copper | 1,550 | 0.500 | 200.0 | 1,371 | 88.4 | 70 | 130 | 1,578 | 1.93 | 30 |  |
|--------|-------|-------|-------|-------|------|----|-----|-------|------|----|--|

**Work Order:** 1701051  
**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Ochoa MS Drinking Water Sampl

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|            |          |           |           |                |      |            |           |             |        |          |      |
|------------|----------|-----------|-----------|----------------|------|------------|-----------|-------------|--------|----------|------|
| Sample ID  | MB-15876 | SampType: | MBLK      | Units:         | µg/L | Prep Date: | 1/9/2017  | RunNo:      | 33783  |          |      |
| Client ID: | MBLKW    | Batch ID: | 15876     | Analysis Date: |      |            |           | 1/9/2017    | SeqNo: | 641635   |      |
| Analyte    | Result   | RL        | SPK value | SPK Ref Val    | %REC | LowLimit   | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |    |       |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|
| Copper | ND | 0.500 |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|

|            |           |                 |           |             |                         |          |                     |             |      |               |      |  |
|------------|-----------|-----------------|-----------|-------------|-------------------------|----------|---------------------|-------------|------|---------------|------|--|
| Sample ID  | LCS-15876 | SampType: LCS   |           |             | Units: µg/L             |          | Prep Date: 1/9/2017 |             |      | RunNo: 33783  |      |  |
| Client ID: | LCSW      | Batch ID: 15876 |           |             | Analysis Date: 1/9/2017 |          |                     |             |      | SeqNo: 641636 |      |  |
| Analyte    | Result    | RL              | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val | %RPD | RPDLimit      | Qual |  |

|        |      |       |       |   |      |    |     |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|
| Copper | 96.6 | 0.500 | 100.0 | 0 | 96.6 | 85 | 115 |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|

|            |                 |           |           |             |      |                |           |             |        |          |      |
|------------|-----------------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1701035-002ADUP | SampType: | DUP       | Units:      | µg/L | Prep Date:     | 1/9/2017  | RunNo:      | 33783  |          |      |
| Client ID: | BATCH           | Batch ID: | 15876     |             |      | Analysis Date: | 1/9/2017  | SeqNo:      | 641638 |          |      |
| Analyte    | Result          | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |      |       |  |  |  |  |  |       |      |    |  |
|--------|------|-------|--|--|--|--|--|-------|------|----|--|
| Copper | 3.77 | 0.500 |  |  |  |  |  | 4.209 | 10.9 | 30 |  |
|--------|------|-------|--|--|--|--|--|-------|------|----|--|

|            |                |           |           |                |      |            |           |             |        |          |      |
|------------|----------------|-----------|-----------|----------------|------|------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1701035-002AMS | SampType: | MS        | Units:         | µg/L | Prep Date: | 1/9/2017  | RunNo:      | 33783  |          |      |
| Client ID: | BATCH          | Batch ID: | 15876     | Analysis Date: |      |            |           | 1/9/2017    | SeqNo: | 641639   |      |
| Analyte    | Result         | RL        | SPK value | SPK Ref Val    | %REC | LowLimit   | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |     |       |       |       |     |    |     |  |  |  |  |
|--------|-----|-------|-------|-------|-----|----|-----|--|--|--|--|
| Copper | 219 | 0.500 | 200.0 | 4.209 | 107 | 70 | 130 |  |  |  |  |
|--------|-----|-------|-------|-------|-----|----|-----|--|--|--|--|

|            |                 |                 |           |             |                         |          |                     |             |      |               |      |  |
|------------|-----------------|-----------------|-----------|-------------|-------------------------|----------|---------------------|-------------|------|---------------|------|--|
| Sample ID  | 1701035-002AMSD | SampType: MSD   |           |             | Units: µg/L             |          | Prep Date: 1/9/2017 |             |      | RunNo: 33783  |      |  |
| Client ID: | BATCH           | Batch ID: 15876 |           |             | Analysis Date: 1/9/2017 |          |                     |             |      | SeqNo: 641642 |      |  |
| Analyte    | Result          | RL              | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val | %RPD | RPDLimit      | Qual |  |

|        |     |       |       |       |      |    |     |       |      |    |  |
|--------|-----|-------|-------|-------|------|----|-----|-------|------|----|--|
| Copper | 200 | 0.500 | 200.0 | 4.209 | 97.9 | 70 | 130 | 218.6 | 8.86 | 30 |  |
|--------|-----|-------|-------|-------|------|----|-----|-------|------|----|--|

Client Name: **FE**  
 Logged by: **Clare Griggs**

Work Order Number: **1701051**  
 Date Received: **1/9/2017 11:10:00 AM**

### Chain of Custody

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

### Log In

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

### Special Handling (if applicable)

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

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

19. Additional remarks:

### Item Information

| Item # | Temp °C |
|--------|---------|
| Cooler | 4.1     |
| Sample | 2.1     |

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



# Fremont

Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street

City, State, Zip: Yakima, WA 98901

Telephone: 509.574.0839

Fax: 509.545.8453

Project Name:

Project No:

Location:

Report To (PM):

PM Email:

Date: 1-7-17

Laboratory Project No (Internal):

Page: 1 of 2

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## Chain of Custody Record and Laboratory Services Agreement

Pasco SD Ochoco MS Drinking Water Sampling

161898.06

Ochoco MS

Collected by: Nate Baston + Amanda Enghs

Ryan Mathews

rmathews@fulcrum.net; cc:aenbysk@fulcrum.net

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

| Sample Name         | Sample Date | Sample Time | Sample Type (Matrix)* | VOGs (EPA 8260 / 624) | GV/BTEX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCID) | Diesel/Heavy Oil Range Organics (DX) | SVOCs (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals** (EPA 6020 / 200.8) | Total (T)   Dissolved (D) | Anions (IC)*** | EDB (8011) | Comments |                    |
|---------------------|-------------|-------------|-----------------------|-----------------------|---------|------|------------------------------|-----------------------------------|--------------------------------------|------------------------|-----------------------|-----------------------|-----------------------------|---------------------------|----------------|------------|----------|--------------------|
| 1 OCH1717-COF-P-10  | 1-7-17      | 9AM         | DW                    |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             | X                         |                |            |          | Preserved          |
| 2 OCH1717-COF-S-10  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Unpreserved - Hold |
| 3 OCH1717-COF-T-10  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Unpreserved - Hold |
| 4 OCH1717-COF-P-16  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Preserved          |
| 5 OCH1717-KF-S-16   |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Unpreserved - Hold |
| 6 OCH1717-KF-T-16   |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Unpreserved - Hold |
| 7 OCH1717-COF-P-22  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Preserved          |
| 8 OCH1717-COF-S-22  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Unpreserved - Hold |
| 9 OCH1717-COF-T-22  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Unpreserved - Hold |
| 10 OCH1717-COF-P-38 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | Preserved          |

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite  
Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.)

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

Relinquished Date/Time 1/4/17 1500 Received Date/Time 1/9/17 11:16  
Relinquished Date/Time 1/4/17 1500 Received Date/Time 1/9/17 11:16

Special Remarks: TAT ASAP

TAT → SameDay^ NextDay^ 2 Day 3 Day STD  
^Please coordinate with the lab in advance



# Fremont

Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street  
Yakima, WA 98901

City, State, Zip:

Telephone: 509.574.0839

Fax: 509.545.8453

Project Name:

Project No:

Location:

Report To (PM):

PM Email:

rmathews@fulcrum.net; cc:aeenbysk@fulcrum.net

## Chain of Custody Record and Laboratory Services Agreement

Date: 1-7-17

Laboratory Project No (Internal):

Page: 2 of 2

Pasco SD Ochoa MS Drinking Water Sampling  
Collected by: Date Postman & Amanda Bysk

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

| Sample Name              | Sample Date | Sample Time | Sample Type (Matrix)* | Comments           |
|--------------------------|-------------|-------------|-----------------------|--------------------|
| 1 OCH1717 - CDF - S - 38 | 1-7-17      | 9AM         | DW                    | Unpreserved - Hold |
| 2 OCH1717 - CDF - T - 38 |             |             |                       | Unpreserved - Hold |
| 3 OCH1717 - CDF - P - 51 |             |             |                       | Preserved          |
| 4 OCH1717 - CDF - S - 51 |             |             |                       | Unpreserved - Hold |
| 5 OCH1717 - CDF - T - 51 |             |             |                       | Unpreserved - Hold |
| 6 OCH1717 - CDF - P - 57 |             |             |                       | Preserved          |
| 7 OCH1717 - CDF - S - 57 |             |             |                       | Unpreserved - Hold |
| 8 OCH1717 - CDF - T - 57 |             |             |                       | Unpreserved - Hold |
| 9 OCH1717 - CDF - P - 62 |             |             |                       | Preserved          |
| 10 OCH1717 - GF - P - 63 |             |             |                       | Preserved          |



**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street

City, State, Zip: Yakima, WA 98901

Telephone: 509.574.0839

Fax: 509.545.8453

Project Name: Pasco SD Ochoco MS Drinking Water Sampling  
Project No: 161898.06  
Location: Ochoco MS  
Report To (PM): Ryan Mathews  
PM Email: rmathews@fulcrum.net; cc: aenbysk@fulcrum.net

Date: 1-7-17

Laboratory Project No (Internal): 1701051  
Page: 1 of 2

Collected by: Nate Boston & Amanda Edwards

## Chain of Custody Record and Laboratory Services Agreement

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

| Sample Name         | Sample Date | Sample Time | Sample Type (Matrix)* | VOCs (EPA 8260 / 624) | GX/BTEX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCD) | SVOCs (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals** (EPA 6020 / 200.8) | Total (T) / Dissolved (D) | Anions (IC)** | EDB (8011) | Comments                                            |
|---------------------|-------------|-------------|-----------------------|-----------------------|---------|------|------------------------------|----------------------------------|------------------------|-----------------------|-----------------------|-----------------------------|---------------------------|---------------|------------|-----------------------------------------------------|
| 1 OCH1717-COF-P-10  | 1-7-17      | 4AM         | DW                    |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Preserved                                           |
| 2 OCH1717-COF-S-10  |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Unpreserved - Hold - Transfer to Analytical 2/10/17 |
| 3 OCH1717-COF-T-16  |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Unpreserved - Hold - Transfer to Analytical 2/10/17 |
| 4 OCH1717-KF-P-16   |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Preserved                                           |
| 5 OCH1717-KF-S-16   |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Unpreserved - Hold                                  |
| 6 OCH1717-KF-T-16   |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Unpreserved - Hold                                  |
| 7 OCH1717-COF-P-22  |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Preserved                                           |
| 8 OCH1717-COF-S-22  |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Unpreserved - Hold - Transfer to Analytical 2/10/17 |
| 9 OCH1717-COF-T-22  |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Unpreserved - Hold - Transfer to Analytical 2/10/17 |
| 10 OCH1717-COF-P-38 |             |             |                       |                       |         |      |                              |                                  |                        |                       |                       |                             |                           |               |            | Preserved                                           |

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate/Nitrite  
Special Remarks: TAT ASAP

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

Relinquished Date/Time 1/4/17 1500 Received Date/Time 1/9/17 11:16  
Relinquished Date/Time 1/4/17 1500 Received Date/Time 1/9/17 11:16

TAT → SameDay NextDay 2 Day 3 Day STD  
\*Please coordinate with the lab in advance



**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

Client: Fulcrum Environmental Consulting  
Address: 406 North Second Street  
City, State, Zip: Yakima, WA 98901  
Telephone: 509.574.0839

Project Name:  
Project No:  
Location:  
Report To (PM):

Date: 1-7-17  
Pasco SD Ochoa MS  
Ochoa MS

Laboratory Project No (Internal):  
Page: 2 of 2  
Collected by: Nate Bosstrom & Amanda Bork

# Chain of Custody Record and Laboratory Services Agreement

| Sample Name               | Sample Date | Sample Time | Sample Type (Matrix)* | VOCs (EPA 8260 / 624) | GX/BTEX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCID) | SVOCs (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals ** (EPA 6020 / 200.8) | Total (T) / Dissolved (D) | Anions (IC)*** | EDB (8011) | Comments                                    |
|---------------------------|-------------|-------------|-----------------------|-----------------------|---------|------|------------------------------|-----------------------------------|------------------------|-----------------------|-----------------------|------------------------------|---------------------------|----------------|------------|---------------------------------------------|
| 1 OCH1717 - CDF - S - 38  | 1-7-17      | 9:44        | DW                    |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 2 OCH1717 - CDF - T - 38  |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 3 OCH1717 - CDF - P - 51  |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 4 OCH1717 - CDF - S - 51  |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 5 OCH1717 - CDF - T - 51  |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 6 OCH1717 - CDF - P - 57  |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 7 OCH1717 - CDF - S - 57  |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 8 OCH1717 - CDF - T - 57  |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 9 OCH1717 - CDF - P - 62  |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |
| 10 OCH1717 - CDF - P - 63 |             |             |                       |                       |         |      |                              |                                   |                        |                       |                       |                              |                           |                |            | Unpreserved - Hold Analyze for Cu 1/10/2017 |

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

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

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

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

Relinquished: Candace Date/Time: 1/2/17 1500 Received: [Signature] Date/Time: 1/2/17 11:15

Special Remarks: TAT ASAP

TAT → SameDay<sup>+</sup> NextDay<sup>+</sup> 2 Day 3 Day STD

Please coordinate with the lab in advance



**Fremont**  
*Analytical*

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: Pasco SD - Ochoa MS Drinking Water Sampling**  
**Work Order Number: 1701230**

January 24, 2017

**Attention Ryan Mathews:**

Fremont Analytical, Inc. received 5 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

**CC:**  
Amanda Enbysk

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**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD - Ochoa MS Drinking Water Sam  
**Work Order:** 1701230

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**Work Order Sample Summary**

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| Lab Sample ID | Client Sample ID  | Date/Time Collected | Date/Time Received |
|---------------|-------------------|---------------------|--------------------|
| 1701230-001   | OCH12017-KF-P-61  | 01/20/2017 7:30 AM  | 01/23/2017 9:24 AM |
| 1701230-002   | OCH12017-KF-S-61  | 01/20/2017 7:30 AM  | 01/23/2017 9:24 AM |
| 1701230-003   | OCH12017-KF-T-61  | 01/20/2017 7:30 AM  | 01/23/2017 9:24 AM |
| 1701230-004   | OCH12017-CDF-P-62 | 01/20/2017 7:30 AM  | 01/23/2017 9:24 AM |
| 1701230-005   | OCH12017-CF-P-63  | 01/20/2017 7:30 AM  | 01/23/2017 9:24 AM |

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**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD - Ochoa MS Drinking Water Sampling

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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:

1701230-001A 202657: Prep Comments for EPA200.8, Sample 1701230-001A: Turbidity: 0.01 NTU

1701230-004A 202658: Prep Comments for EPA200.8, Sample 1701230-004A: Turbidity: 0.01 NTU

1701230-005A 202733: Prep Comments for EPA200.8, Sample 1701230-005A: Turbidity: 0.01 NTU

**Qualifiers:**

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

**Acronyms:**

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



## Analytical Report

Work Order: 1701230  
Date Reported: 1/24/2017

**Client:** Fulcrum Environmental

**Collection Date:** 1/20/2017 7:30:00 AM

**Project:** Pasco SD - Ochoa MS Drinking Water Sampling

**Lab ID:** 1701230-001

**Matrix:** Drinking Water

**Client Sample ID:** OCH12017-KF-P-61

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 15996

Analyst: TN

|        |      |       |  |      |   |                      |
|--------|------|-------|--|------|---|----------------------|
| Copper | 902  | 0.500 |  | µg/L | 1 | 1/23/2017 5:17:08 PM |
| Lead   | 3.93 | 1.00  |  | µg/L | 1 | 1/23/2017 5:17:08 PM |



## Analytical Report

Work Order: 1701230  
Date Reported: 1/24/2017

**Client:** Fulcrum Environmental

**Collection Date:** 1/20/2017 7:30:00 AM

**Project:** Pasco SD - Ochoa MS Drinking Water Sampling

**Lab ID:** 1701230-004

**Matrix:** Drinking Water

**Client Sample ID:** OCH12017-CDF-P-62

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 15996

Analyst: TN

|        |       |       |  |      |   |                      |
|--------|-------|-------|--|------|---|----------------------|
| Copper | 1,220 | 0.500 |  | µg/L | 1 | 1/23/2017 5:20:44 PM |
| Lead   | 13.9  | 1.00  |  | µg/L | 1 | 1/23/2017 5:20:44 PM |



## Analytical Report

Work Order: 1701230  
Date Reported: 1/24/2017

**Client:** Fulcrum Environmental

**Collection Date:** 1/20/2017 7:30:00 AM

**Project:** Pasco SD - Ochoa MS Drinking Water Sampling

**Lab ID:** 1701230-005

**Matrix:** Drinking Water

**Client Sample ID:** OCH12017-CF-P-63

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 15996

Analyst: TN

|        |      |       |  |      |   |                      |
|--------|------|-------|--|------|---|----------------------|
| Copper | 2.05 | 0.500 |  | µg/L | 1 | 1/23/2017 5:24:20 PM |
| Lead   | ND   | 1.00  |  | µg/L | 1 | 1/23/2017 5:24:20 PM |



**Work Order:** 1701230  
**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD - Ochoa MS Drinking Water Sam

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|            |          |           |       |           |             |      |          |                |             |  |        |          |      |
|------------|----------|-----------|-------|-----------|-------------|------|----------|----------------|-------------|--|--------|----------|------|
| Sample ID  | MB-15996 | SampType: | MBLK  |           | Units:      | µg/L |          | Prep Date:     | 1/23/2017   |  | RunNo: | 34023    |      |
| Client ID: | MBLKW    | Batch ID: | 15996 |           |             |      |          | Analysis Date: | 1/23/2017   |  | SeqNo: | 647430   |      |
| Analyte    |          | Result    | RL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit      | RPD Ref Val |  | %RPD   | RPDLimit | Qual |
| Copper     |          | ND        | 0.500 |           |             |      |          |                |             |  |        |          |      |
| Lead       |          | ND        | 1.00  |           |             |      |          |                |             |  |        |          |      |

|            |           |           |       |           |             |      |          |                |             |  |        |          |      |
|------------|-----------|-----------|-------|-----------|-------------|------|----------|----------------|-------------|--|--------|----------|------|
| Sample ID  | LCS-15996 | SampType: | LCS   |           | Units:      | µg/L |          | Prep Date:     | 1/23/2017   |  | RunNo: | 34023    |      |
| Client ID: | LCSW      | Batch ID: | 15996 |           |             |      |          | Analysis Date: | 1/23/2017   |  | SeqNo: | 647431   |      |
| Analyte    |           | Result    | RL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit      | RPD Ref Val |  | %RPD   | RPDLimit | Qual |
| Copper     |           | 90.6      | 0.500 | 100.0     | 0           | 90.6 | 85       | 115            |             |  |        |          |      |
| Lead       |           | 44.9      | 1.00  | 50.00     | 0           | 89.8 | 85       | 115            |             |  |        |          |      |

|            |                 |           |       |           |             |      |          |                |             |  |        |          |      |
|------------|-----------------|-----------|-------|-----------|-------------|------|----------|----------------|-------------|--|--------|----------|------|
| Sample ID  | 1701204-001ADUP | SampType: | DUP   |           | Units:      | µg/L |          | Prep Date:     | 1/23/2017   |  | RunNo: | 34023    |      |
| Client ID: | BATCH           | Batch ID: | 15996 |           |             |      |          | Analysis Date: | 1/23/2017   |  | SeqNo: | 647433   |      |
| Analyte    |                 | Result    | RL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit      | RPD Ref Val |  | %RPD   | RPDLimit | Qual |
| Copper     |                 | 21.1      | 0.500 |           |             |      |          |                | 22.00       |  | 4.04   | 30       |      |
| Lead       |                 | ND        | 1.00  |           |             |      |          |                | 0           |  |        | 30       |      |

|            |                |           |       |           |             |      |          |                |             |  |        |          |      |
|------------|----------------|-----------|-------|-----------|-------------|------|----------|----------------|-------------|--|--------|----------|------|
| Sample ID  | 1701204-001AMS | SampType: | MS    |           | Units:      | µg/L |          | Prep Date:     | 1/23/2017   |  | RunNo: | 34023    |      |
| Client ID: | BATCH          | Batch ID: | 15996 |           |             |      |          | Analysis Date: | 1/23/2017   |  | SeqNo: | 647434   |      |
| Analyte    |                | Result    | RL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit      | RPD Ref Val |  | %RPD   | RPDLimit | Qual |
| Copper     |                | 207       | 0.500 | 200.0     | 22.00       | 92.5 | 70       | 130            |             |  |        |          |      |
| Lead       |                | 91.9      | 1.00  | 100.0     | 0.3708      | 91.5 | 70       | 130            |             |  |        |          |      |

|            |                 |           |       |           |             |      |          |                |             |  |        |          |      |
|------------|-----------------|-----------|-------|-----------|-------------|------|----------|----------------|-------------|--|--------|----------|------|
| Sample ID  | 1701204-001AMSD | SampType: | MSD   |           | Units:      | µg/L |          | Prep Date:     | 1/23/2017   |  | RunNo: | 34023    |      |
| Client ID: | BATCH           | Batch ID: | 15996 |           |             |      |          | Analysis Date: | 1/23/2017   |  | SeqNo: | 647435   |      |
| Analyte    |                 | Result    | RL    | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit      | RPD Ref Val |  | %RPD   | RPDLimit | Qual |
| Copper     |                 | 207       | 0.500 | 200.0     | 22.00       | 92.7 | 70       | 130            | 207.0       |  | 0.202  | 30       |      |



**Work Order:** 1701230  
**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD - Ochoa MS Drinking Water Sam

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|            |                 |           |           |             |      |                |           |             |        |          |      |
|------------|-----------------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1701204-001AMSD | SampType: | MSD       | Units:      | µg/L | Prep Date:     | 1/23/2017 | RunNo:      | 34023  |          |      |
| Client ID: | BATCH           | Batch ID: | 15996     |             |      | Analysis Date: | 1/23/2017 | SeqNo:      | 647435 |          |      |
| Analyte    | Result          | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |
| Lead       | 92.0            | 1.00      | 100.0     | 0.3708      | 91.7 | 70             | 130       | 91.89       | 0.152  | 30       |      |



Work Order Number: **1701230**

Date Received: **1/23/2017 9:24:00 AM**

|                                  |                                         |                             |                                      |
|----------------------------------|-----------------------------------------|-----------------------------|--------------------------------------|
| 1. Is Chain of Custody complete? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 2. How was the sample delivered? | UPS                                     |                             |                                      |

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

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

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

19. Additional remarks:

| Item #   | Temp °C |
|----------|---------|
| Cooler 1 | 2.6     |
| Cooler 2 | 3.5     |
| Sample 1 | 2.9     |
| Sample 2 | 3.5     |

Original



3600 Fremont Ave N.  
Seattle, WA 98103

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

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street  
Yakima, WA 98901

City, State, Zip: 509.574.0839

Telephone: 509.574.0839 Fax: 509.545.8453

# Chain of Custody Record and Laboratory Services Agreement

Date: 1/20/2017

Laboratory Project No (Internal):

170123D

Project Name: 161898.06  
Project No: 161898.06  
Location: Ochoa Middle School, Pasco, WA  
Report To (PM): Ryan Mathews  
rmathews@fulcrum.net; cc: aenbysk@fulcrum.net

Collected by: Anyida Gabyk

| Sample Name       | Sample Date | Sample Time | Sample Type (Matrix)* | Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water | Comments       |
|-------------------|-------------|-------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| OCH12017-KF-P-61  | 1/20/17     | 0730        | DW                    |                                                                                                                                                                                                   | HNO3 preserved |
| OCH12017-KF-S-61  |             |             |                       |                                                                                                                                                                                                   | HNO3, unp.     |
| OCH12017-KF-T-61  |             |             |                       |                                                                                                                                                                                                   | HNO3, unp.     |
| OCH12017-COF-P-62 |             |             |                       |                                                                                                                                                                                                   | HNO3 preserved |
| OCH12017-CF-P-63  |             |             |                       |                                                                                                                                                                                                   | HNO3 preserved |



**Fremont**  
*Analytical*

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**Fulcrum Environmental**

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

**RE: Pasco SD Drinking Water-Ochoa Middle School**  
**Work Order Number: 1703332**

March 30, 2017

**Attention Ryan Mathews:**

Fremont Analytical, Inc. received 5 sample(s) on 3/30/2017 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

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

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**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Drinking Water-Ochoa Middle Sc  
**Work Order:** 1703332

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**Work Order Sample Summary**

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| Lab Sample ID | Client Sample ID  | Date/Time Collected | Date/Time Received |
|---------------|-------------------|---------------------|--------------------|
| 1703332-001   | OCH32917-CF-P-10  | 03/29/2017 6:00 AM  | 03/30/2017 9:25 AM |
| 1703332-002   | OCH32917-CF-S-10  | 03/29/2017 6:00 AM  | 03/30/2017 9:25 AM |
| 1703332-003   | OCH32917-CF-T-10  | 03/29/2017 6:00 AM  | 03/30/2017 9:25 AM |
| 1703332-004   | OCH32917-CDF-P-62 | 03/29/2017 6:00 AM  | 03/30/2017 9:25 AM |
| 1703332-005   | OCH32917-CF-P-63  | 03/29/2017 6:00 AM  | 03/30/2017 9:25 AM |

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**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Drinking Water-Ochoa Middle School

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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:

1703332-001A 213359: Prep Comments for EPA200.8, Sample 1703332-001A: Turbidity: 0.09 NTU

1703332-004A 213360: Prep Comments for EPA200.8, Sample 1703332-004A: Turbidity: 0.00 NTU

1703332-005A 213361: Prep Comments for EPA200.8, Sample 1703332-005A: Turbidity: 0.00 NTU

**Qualifiers:**

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

**Acronyms:**

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



## Analytical Report

Work Order: 1703332

Date Reported: 3/30/2017

**CLIENT:** Fulcrum Environmental

**Project:** Pasco SD Drinking Water-Ochoa Middle School

**Lab ID:** 1703332-001

**Client Sample ID:** OCH32917-CF-P-10

**Collection Date:** 3/29/2017 6:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 16636

Analyst: TN

|        |      |       |  |      |   |                      |
|--------|------|-------|--|------|---|----------------------|
| Copper | 95.3 | 0.500 |  | µg/L | 1 | 3/30/2017 1:49:23 PM |
|--------|------|-------|--|------|---|----------------------|

**Lab ID:** 1703332-004

**Client Sample ID:** OCH32917-CDF-P-62

**Collection Date:** 3/29/2017 6:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 16636

Analyst: TN

|        |       |       |  |      |   |                      |
|--------|-------|-------|--|------|---|----------------------|
| Copper | 1,320 | 0.500 |  | µg/L | 1 | 3/30/2017 1:53:24 PM |
|--------|-------|-------|--|------|---|----------------------|

**Lab ID:** 1703332-005

**Client Sample ID:** OCH32917-CF-P-63

**Collection Date:** 3/29/2017 6:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 16636

Analyst: TN

|        |    |       |  |      |   |                      |
|--------|----|-------|--|------|---|----------------------|
| Copper | ND | 0.500 |  | µg/L | 1 | 3/30/2017 1:57:26 PM |
|--------|----|-------|--|------|---|----------------------|

**Work Order:** 1703332  
**CLIENT:** Fulcrum Environmental  
**Project:** Pasco SD Drinking Water-Ochoa Middle Sc

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|            |          |           |           |             |      |                |           |             |        |          |      |
|------------|----------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | MB-16636 | SampType: | MBLK      | Units:      | µg/L | Prep Date:     | 3/30/2017 | RunNo:      | 35228  |          |      |
| Client ID: | MBLKW    | Batch ID: | 16636     |             |      | Analysis Date: | 3/30/2017 | SeqNo:      | 673718 |          |      |
| Analyte    | Result   | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |    |       |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|
| Copper | ND | 0.500 |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|

|            |           |                 |           |             |                          |          |                      |               |      |              |      |  |
|------------|-----------|-----------------|-----------|-------------|--------------------------|----------|----------------------|---------------|------|--------------|------|--|
| Sample ID  | LCS-16636 | SampType: LCS   |           |             | Units: µg/L              |          | Prep Date: 3/30/2017 |               |      | RunNo: 35228 |      |  |
| Client ID: | LCSW      | Batch ID: 16636 |           |             | Analysis Date: 3/30/2017 |          |                      | SeqNo: 673719 |      |              |      |  |
| Analyte    | Result    | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val   | %RPD | RPDLimit     | Qual |  |

|        |      |       |       |   |      |    |     |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|
| Copper | 95.8 | 0.500 | 100.0 | 0 | 95.8 | 85 | 115 |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|

|            |                 |           |           |                |      |            |           |             |        |          |      |
|------------|-----------------|-----------|-----------|----------------|------|------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1703298-001ADUP | SampType: | DUP       | Units:         | µg/L | Prep Date: | 3/30/2017 | RunNo:      | 35228  |          |      |
| Client ID: | BATCH           | Batch ID: | 16636     | Analysis Date: |      |            |           | 3/30/2017   | SeqNo: | 673723   |      |
| Analyte    | Result          | RL        | SPK value | SPK Ref Val    | %REC | LowLimit   | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |      |       |  |  |  |  |  |       |      |    |  |
|--------|------|-------|--|--|--|--|--|-------|------|----|--|
| Copper | 3.09 | 0.500 |  |  |  |  |  | 3.227 | 4.26 | 30 |  |
|--------|------|-------|--|--|--|--|--|-------|------|----|--|

|            |                |           |           |                |      |            |           |             |        |          |      |
|------------|----------------|-----------|-----------|----------------|------|------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1703298-001AMS | SampType: | MS        | Units:         | µg/L | Prep Date: | 3/30/2017 | RunNo:      | 35228  |          |      |
| Client ID: | BATCH          | Batch ID: | 16636     | Analysis Date: |      |            |           | 3/30/2017   | SeqNo: | 673724   |      |
| Analyte    | Result         | RL        | SPK value | SPK Ref Val    | %REC | LowLimit   | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |     |       |       |       |      |    |     |  |  |  |  |
|--------|-----|-------|-------|-------|------|----|-----|--|--|--|--|
| Copper | 195 | 0.500 | 200.0 | 3.227 | 95.8 | 70 | 130 |  |  |  |  |
|--------|-----|-------|-------|-------|------|----|-----|--|--|--|--|

|            |                 |                 |           |             |                          |          |                      |               |      |              |      |  |
|------------|-----------------|-----------------|-----------|-------------|--------------------------|----------|----------------------|---------------|------|--------------|------|--|
| Sample ID  | 1703298-001AMSD | SampType: MSD   |           |             | Units: µg/L              |          | Prep Date: 3/30/2017 |               |      | RunNo: 35228 |      |  |
| Client ID: | BATCH           | Batch ID: 16636 |           |             | Analysis Date: 3/30/2017 |          |                      | SeqNo: 673725 |      |              |      |  |
| Analyte    | Result          | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val   | %RPD | RPDLimit     | Qual |  |

|        |     |       |       |       |      |    |     |       |      |    |  |
|--------|-----|-------|-------|-------|------|----|-----|-------|------|----|--|
| Copper | 203 | 0.500 | 200.0 | 3.227 | 99.9 | 70 | 130 | 194.9 | 4.10 | 30 |  |
|--------|-----|-------|-------|-------|------|----|-----|-------|------|----|--|

Client Name: **FE**  
 Logged by: **Erica Silva**

Work Order Number: **1703332**  
 Date Received: **3/30/2017 9:25:00 AM**

### Chain of Custody

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

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
 4. Shipping container/cooler in good condition? Yes ☒ No ☐  
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☒ Not Required ☐  
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
 7. Were all items received at a temperature of  $>0^{\circ}\text{C}$  to  $10.0^{\circ}\text{C}$  \* Yes ☒ No ☐ NA ☐  
 8. Sample(s) in proper container(s)? Yes ☒ No ☐  
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 10. Are samples properly preserved? Yes ☒ No ☐  
 11. Was preservative added to bottles? Yes ☒ No ☐ NA ☐  
 HNO3 to 002A, 003A  
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 14. Does paperwork match bottle labels? Yes ☒ No ☐  
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 16. Is it clear what analyses were requested? Yes ☒ No ☐  
 17. Were all holding times able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

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

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

19. Additional remarks:

### Item Information

| Item # | Temp °C |
|--------|---------|
| Cooler | 1.1     |
| Sample | 1.5     |

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



# Fremont

Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

## Chain of Custody Record and Laboratory Services Agreement

Date: 3/29/2017

Laboratory Project No (Internal):

1703332

Page: 1 of 1

Client: Fulcrum Environmental Consulting  
Address: 406 North Second Street  
City, State, Zip: Yakima, WA, 98901  
Telephone: 509.574.0839 Fax: 509.575.8453

Project Name: Pasco SD Drinking Water - Ochoa Middle School

Project No: 161898.06 Collected by: Amanda Embysk

Location: Ellen Ochoa Middle School, Pasco, WA

Report To (PM): Ryan Mathews

PM Email: rmathews@fulcrum.net; cc: aembysk@fulcrum.net

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

| Sample Name        | Sample Date | Sample Time | Sample Type (Matrix)* | VOCs (EPA 8260 / 624) | GX/STEX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCID) | Diesel/Heavy Oil Range Organics (DX) | SVOCS (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals** (EPA 6020 / 200.8) | Total (T)   Dissolved (D) | Anions (IC)** | EDB (8011) | Comments      |
|--------------------|-------------|-------------|-----------------------|-----------------------|---------|------|------------------------------|-----------------------------------|--------------------------------------|------------------------|-----------------------|-----------------------|-----------------------------|---------------------------|---------------|------------|---------------|
| 1 OC+32917-CF-P-1D | 3/29/2017   | 0600        | DW                    |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            | HV03 prepared |
| 2 OC+32917-CF-S-10 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            | HV03, impr.   |
| 3 OC+32917-CF-T-10 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            |               |
| 4 OC+32917-CF-P-62 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            | HV03 p-cs.    |
| 5 OC+32917-CF-P-63 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            |               |
| 6                  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            |               |
| 7                  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            |               |
| 8                  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            |               |
| 9                  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            |               |
| 10                 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |               |            |               |



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: PSD Drinking Water - Ochoa Middle School**  
**Work Order Number: 1707244**

July 26, 2017

**Attention Ryan Mathews:**

Fremont Analytical, Inc. received 17 sample(s) on 7/26/2017 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,

A handwritten signature in black ink, appearing to read "Chelsea Ward".

Chelsea Ward  
Project Manager

**CC:**  
Amanda Enbysk

**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School  
**Work Order:** 1707244

## Work Order Sample Summary

| Lab Sample ID | Client Sample ID  | Date/Time Collected | Date/Time Received |
|---------------|-------------------|---------------------|--------------------|
| 1707244-001   | OCH72517-DF-P-07  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-002   | OCH72517-DF-S-07  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-003   | OCH72517-DF-T-07  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-004   | OCH72517-OF-P-13  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-005   | OCH72517-OF-S-13  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-006   | OCH72517-OF-T-13  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-007   | OCH72517-NF-P-14  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-008   | OCH72517-NF-S-14  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-009   | OCH72517-NF-T-14  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-010   | OCH72517-CF-P-23  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-011   | OCH72517-CF-S-23  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-012   | OCH72517-CF-T-23  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-013   | OCH72517-CF-P-58  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-014   | OCH72517-CF-S-58  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-015   | OCH72517-CF-T-58  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-016   | OCH72517-CDF-P-62 | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |
| 1707244-017   | OCH72517-CF-P-63  | 07/26/2017 9:00 AM  | 07/26/2017 9:37 AM |

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**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

---

**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.

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- 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:**

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



## Analytical Report

Work Order: 1707244

Date Reported: 7/26/2017

**CLIENT:** Fulcrum Environmental

**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1707244-001

**Client Sample ID:** OCH72517-DF-P-07

**Collection Date:** 7/26/2017 9:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 17729

Analyst: TN

|        |       |       |  |      |   |                      |
|--------|-------|-------|--|------|---|----------------------|
| Copper | 2,010 | 0.500 |  | µg/L | 1 | 7/26/2017 1:56:09 PM |
|--------|-------|-------|--|------|---|----------------------|

**Lab ID:** 1707244-004

**Client Sample ID:** OCH72517-OF-P-13

**Collection Date:** 7/26/2017 9:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 17729

Analyst: TN

|        |       |       |  |      |   |                      |
|--------|-------|-------|--|------|---|----------------------|
| Copper | 1,220 | 0.500 |  | µg/L | 1 | 7/26/2017 2:00:10 PM |
|--------|-------|-------|--|------|---|----------------------|

**Lab ID:** 1707244-007

**Client Sample ID:** OCH72517-NF-P-14

**Collection Date:** 7/26/2017 9:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 17729

Analyst: TN

|        |       |       |  |      |   |                      |
|--------|-------|-------|--|------|---|----------------------|
| Copper | 1,270 | 0.500 |  | µg/L | 1 | 7/26/2017 2:04:11 PM |
|--------|-------|-------|--|------|---|----------------------|



## Analytical Report

Work Order: 1707244

Date Reported: 7/26/2017

**CLIENT:** Fulcrum Environmental

**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1707244-010

**Client Sample ID:** OCH72517-CF-P-23

**Collection Date:** 7/26/2017 9:00:00 AM

**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 17729 |    | Analyst: TN          |
| Copper                                                  | 1,090  | 0.500 |      | µg/L            | 1  | 7/26/2017 2:08:13 PM |

**Lab ID:** 1707244-013

**Client Sample ID:** OCH72517-CF-P-58

**Collection Date:** 7/26/2017 9:00:00 AM

**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 17729 |    | Analyst: TN          |
| Copper                                                  | 1,550  | 0.500 |      | µg/L            | 1  | 7/26/2017 2:12:14 PM |

**Lab ID:** 1707244-016

**Client Sample ID:** OCH72517-CDF-P-62

**Collection Date:** 7/26/2017 9:00:00 AM

**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|---------------------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 17729 |    | Analyst: TN          |
| Copper                                                  | 1,250  | 0.500 |      | µg/L            | 1  | 7/26/2017 2:16:15 PM |



## Analytical Report

Work Order: 1707244

Date Reported: 7/26/2017

**CLIENT:** Fulcrum Environmental

**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1707244-017

**Collection Date:** 7/26/2017 9:00:00 AM

**Client Sample ID:** OCH72517-CF-P-63

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 17729

Analyst: TN

|        |       |       |  |      |   |                      |
|--------|-------|-------|--|------|---|----------------------|
| Copper | 0.674 | 0.500 |  | µg/L | 1 | 7/26/2017 2:20:16 PM |
|--------|-------|-------|--|------|---|----------------------|

**Work Order:** 1707244  
**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|            |          |           |       |           |             |        |          |           |             |                |           |      |        |        |  |
|------------|----------|-----------|-------|-----------|-------------|--------|----------|-----------|-------------|----------------|-----------|------|--------|--------|--|
| Sample ID  | MB-17729 | SampType: | MBLK  |           |             | Units: | µg/L     |           |             | Prep Date:     | 7/26/2017 |      | RunNo: | 37627  |  |
| Client ID: | MBLKW    | Batch ID: | 17729 |           |             |        |          |           |             | Analysis Date: | 7/26/2017 |      | SeqNo: | 723005 |  |
| Analyte    |          | Result    | RL    | SPK value | SPK Ref Val | %REC   | LowLimit | HighLimit | RPD Ref Val | %RPD           | RPDLimit  | Qual |        |        |  |

|        |    |       |  |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|--|
| Copper | ND | 0.500 |  |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|--|

|            |           |           |           |             |      |                |           |             |        |          |      |
|------------|-----------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | LCS-17729 | SampType: | LCS       | Units:      | µg/L | Prep Date:     | 7/26/2017 | RunNo:      | 37627  |          |      |
| Client ID: | LCSW      | Batch ID: | 17729     |             |      | Analysis Date: | 7/26/2017 | SeqNo:      | 723006 |          |      |
| Analyte    | Result    | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |      |       |       |   |      |    |     |  |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|--|
| Copper | 98.2 | 0.500 | 100.0 | 0 | 98.2 | 85 | 115 |  |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|--|

|            |                 |           |       |           |             |                |           |           |             |      |          |      |
|------------|-----------------|-----------|-------|-----------|-------------|----------------|-----------|-----------|-------------|------|----------|------|
| Sample ID  | 1707243-001ADUP | SampType: | DUP   | Units:    | µg/L        | Prep Date:     | 7/26/2017 | RunNo:    | 37627       |      |          |      |
| Client ID: | BATCH           | Batch ID: | 17729 |           |             | Analysis Date: | 7/26/2017 | SeqNo:    | 723008      |      |          |      |
| Analyte    |                 | Result    | RL    | SPK value | SPK Ref Val | %REC           | LowLimit  | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|        |     |       |  |  |  |  |  |  |       |       |    |  |
|--------|-----|-------|--|--|--|--|--|--|-------|-------|----|--|
| Copper | 146 | 0.500 |  |  |  |  |  |  | 146.9 | 0.616 | 30 |  |
|--------|-----|-------|--|--|--|--|--|--|-------|-------|----|--|

|            |                |           |           |             |      |                |           |             |        |          |      |
|------------|----------------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1707243-001AMS | SampType: | MS        | Units:      | µg/L | Prep Date:     | 7/26/2017 | RunNo:      | 37627  |          |      |
| Client ID: | BATCH          | Batch ID: | 17729     |             |      | Analysis Date: | 7/26/2017 | SeqNo:      | 723009 |          |      |
| Analyte    | Result         | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |     |       |       |       |      |    |     |  |  |  |  |  |
|--------|-----|-------|-------|-------|------|----|-----|--|--|--|--|--|
| Copper | 320 | 0.500 | 200.0 | 146.9 | 86.6 | 70 | 130 |  |  |  |  |  |
|--------|-----|-------|-------|-------|------|----|-----|--|--|--|--|--|

|            |                 |           |           |             |      |                |           |             |        |          |      |
|------------|-----------------|-----------|-----------|-------------|------|----------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1707243-001AMSD | SampType: | MSD       | Units:      | µg/L | Prep Date:     | 7/26/2017 | RunNo:      | 37627  |          |      |
| Client ID: | BATCH           | Batch ID: | 17729     |             |      | Analysis Date: | 7/26/2017 | SeqNo:      | 723010 |          |      |
| Analyte    | Result          | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |     |       |       |       |      |    |     |       |      |    |  |  |
|--------|-----|-------|-------|-------|------|----|-----|-------|------|----|--|--|
| Copper | 344 | 0.500 | 200.0 | 146.9 | 98.6 | 70 | 130 | 320.2 | 7.18 | 30 |  |  |
|--------|-----|-------|-------|-------|------|----|-----|-------|------|----|--|--|

## Sample Log-In Check List

Work Order Number: **1707244**

Date Received: **7/26/2017 9:37:00 AM**

### **Chain of Custody**

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

**Log In**

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

***Special Handling (if applicable)***

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

|                      |                      |      |                                                                                                                               |
|----------------------|----------------------|------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via: | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |      |                                                                                                                               |
| Client Instructions: | <input type="text"/> |      |                                                                                                                               |

19. Additional remarks:

### Item Information

| Item #   | Temp °C |
|----------|---------|
| Cooler 1 | 2.9     |
| Cooler 2 | 0.3     |
| Cooler 3 | 4.9     |
| Sample 1 | 3.1     |
| Sample 2 | 0.3     |

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

Client Name: **FE**Work Order Number: **1707244**Logged by: **Clare Griggs**Date Received: **7/26/2017 9:37:00 AM**

| Item #   | Temp °C |
|----------|---------|
| Sample 3 | 4.3     |



**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street

City, State, Zip: Yakima, WA, 98901

Telephone: 509.574.0839

Fax: 509.575.8453

PM Email:

mathews@fulcrum.net; cc: aenbysk@fulcrum.net

# Chain of Custody Record and Laboratory Services Agreement

Date: 7/25/2017

Laboratory Project No (Internal): 1767244

Page: 1 of 2

Project Name:

PSD Drinking water - Glen Middle School

Project No:

161898.00

Collected by: Amanda Enbysk

Location:

Glen Middle School, Pasco, WA

Report To (PM):

Ryan Mathews

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

| Sample Name         | Sample Date | Sample Time | Sample Type (Matrix)* | VOCs (EPA 8260 / 624) | GY/8TEX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCID) | Diesel/Heavy Oil Range Organics (DX) | SVOCS (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals** (EPA 6020 / 200.8) | Total (T)   Dissolved (D) | Anions (IC)*** | EDB (8011) | Comments |      |
|---------------------|-------------|-------------|-----------------------|-----------------------|---------|------|------------------------------|-----------------------------------|--------------------------------------|------------------------|-----------------------|-----------------------|-----------------------------|---------------------------|----------------|------------|----------|------|
| 1 OC#72517-OF-P-07  | 7/25/17     | 0900        | AW                    |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 2 OC#72517-OF-S-07  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 3 OC#72517-OF-T-07  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 4 OC#72517-OF-P-13  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 5 OC#72517-OF-S-13  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 6 OC#72517-OF-T-13  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 7 OC#72517-OF-P-14  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 8 OC#72517-OF-S-14  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 9 OC#72517-OF-T-14  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |
| 10 OC#72517-OF-P-23 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |          | HOLD |

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

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

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

Relinquished: [Signature] Date/Time: 7/25/17 1600 Received: [Signature] Date/Time: 7/26/17 0937

Special Remarks: Please preserve all unpreserved TAT: ASAP

TAT → SameDay NextDay 2 Day 3 Day STD

\*Please coordinate with the lab in advance



**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

# Chain of Custody Record and Laboratory Services Agreement

Date: 7/25/2017

Laboratory Project No (Internal):

Page: 2 of 2

Project Name: See page 1

Collected by: Amanda Enbysk

Client: Fulcrum Environmental Consulting  
Address: 406 North Second Street  
City, State, Zip: Yakima, WA, 98901

Project No:



Telephone: 509.574.0839

Report To (PM):

Ryan Mathews

Fax: 509.575.8453

PM Email:

rmathews@fulcrum.net; cc: aenbysk@fulcrum.net

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

| Sample Name        | Sample Date | Sample Time | Sample Type (Matrix)* | VOCs (EPA 8260 / 624) | GY/BTEX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCID) | Diesel/Heavy Oil Range Organics (DX) | SVOCS (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals** (EPA 6020 / 200.8) | Total (T)   Dissolved (D) | Anions (IC)*** | EDB (8011) | Two preserved | Comments |
|--------------------|-------------|-------------|-----------------------|-----------------------|---------|------|------------------------------|-----------------------------------|--------------------------------------|------------------------|-----------------------|-----------------------|-----------------------------|---------------------------|----------------|------------|---------------|----------|
| 1 CATT3517-CF-S-23 | 7/25/17     | 0920        | DW                    |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               | HOLD     |
| 2 CATT3517-CF-T-23 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               | HOLD     |
| 3 CATT3517-CF-P-58 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               | HOLD     |
| 4 CATT3517-CF-S-58 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               | HOLD     |
| 5 CATT3517-CF-T-58 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               | HOLD     |
| 6 CATT3517-CF-P-62 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               | HOLD     |
| 7 CATT3517-CF-P-63 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               | HOLD     |
| 8                  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               |          |
| 9                  |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               |          |
| 10                 |             |             |                       |                       |         |      |                              |                                   |                                      |                        |                       |                       |                             |                           |                |            |               |          |

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

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

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

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

Relinquished: Date/Time 7/25/17, 1600 Received: Date/Time 7/26/17 0937

Relinquished: Date/Time Received: Date/Time

Special Remarks: See pg 1

TAT → SameDay^ NextDay^ 2 Day 3 Day STD

Please coordinate with the lab in advance



**Fremont**  
*Analytical*

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

**Fulcrum Environmental**

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

**RE: PSD Drinking Water - Ochoa Middle School**  
**Work Order Number: 1708086**

August 09, 2017

**Attention Ryan Mathews:**

Fremont Analytical, Inc. received 22 sample(s) on 8/9/2017 for the analyses presented in the following report.

***Drinking Water Metals by EPA Method 200.8***

This report consists of the following:

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

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

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward  
Project Manager

**CC:**  
Amanda Enbysk

**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School  
**Work Order:** 1708086

## Work Order Sample Summary

| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
|---------------|------------------|---------------------|--------------------|
| 1708086-001   | OCH8817-OF-P-13  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-002   | OCH8817-OF-S-13  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-003   | OCH8817-OF-T-13  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-004   | OCH8817-NF-P-14  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-005   | OCH8817-NF-S-14  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-006   | OCH8817-NF-T-14  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-007   | OCH8817-NF-P-15  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-008   | OCH8817-CDF-P-22 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-009   | OCH8817-CDF-S-22 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-010   | OCH8817-CDF-T-22 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-011   | OCH8817-CDF-P-38 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-012   | OCH8817-CDF-S-38 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-013   | OCH8817-CDF-T-38 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-014   | OCH8817-CDF-P-41 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-015   | OCH8817-CDF-S-41 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-016   | OCH8817-CDF-T-41 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-017   | OCH8817-CDF-P-57 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-018   | OCH8817-CF-P-58  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-019   | OCH8817-CF-S-58  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-020   | OCH8817-CF-T-58  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-021   | OCH8817-CDF-P-62 | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |
| 1708086-022   | OCH8817-CF-P-63  | 08/08/2017 8:00 AM  | 08/09/2017 9:23 AM |

---

**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

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**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:**

1708086-001A 230917: Prep Comments for EPA200.8, Sample 1708086-001A: Turbidity: 0.00 NTU  
1708086-004A 230918: Prep Comments for EPA200.8, Sample 1708086-004A: Turbidity: 0.01 NTU  
1708086-007A 230919: Prep Comments for EPA200.8, Sample 1708086-007A: Turbidity: 0.03 NTU  
1708086-008A 230920: Prep Comments for EPA200.8, Sample 1708086-008A: Turbidity: 0.00 NTU  
1708086-011A 230921: Prep Comments for EPA200.8, Sample 1708086-011A: Turbidity: 0.00 NTU  
1708086-014A 230922: Prep Comments for EPA200.8, Sample 1708086-014A: Turbidity: 0.00 NTU  
1708086-017A 230923: Prep Comments for EPA200.8, Sample 1708086-017A: Turbidity: 0.02 NTU  
1708086-018A 230924: Prep Comments for EPA200.8, Sample 1708086-018A: Turbidity: 0.01 NTU  
1708086-021A 230925: Prep Comments for EPA200.8, Sample 1708086-021A: Turbidity: 0.01 NTU  
1708086-022A 230926: Prep Comments for EPA200.8, Sample 1708086-022A: Turbidity: 0.01 NTU

**Qualifiers:**

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

**Acronyms:**

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



## Analytical Report

Work Order: 1708086  
Date Reported: 8/9/2017

**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1708086-001

**Client Sample ID:** OCH8817-OF-P-13

**Collection Date:** 8/8/2017 8:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 17850

Analyst: TN

|        |       |       |  |      |   |                     |
|--------|-------|-------|--|------|---|---------------------|
| Copper | 1,090 | 0.500 |  | µg/L | 1 | 8/9/2017 3:09:26 PM |
|--------|-------|-------|--|------|---|---------------------|

**Lab ID:** 1708086-004

**Client Sample ID:** OCH8817-NF-P-14

**Collection Date:** 8/8/2017 8:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 17850

Analyst: TN

|        |       |       |  |      |   |                     |
|--------|-------|-------|--|------|---|---------------------|
| Copper | 1,020 | 0.500 |  | µg/L | 1 | 8/9/2017 3:13:27 PM |
|--------|-------|-------|--|------|---|---------------------|

**Lab ID:** 1708086-007

**Client Sample ID:** OCH8817-NF-P-15

**Collection Date:** 8/8/2017 8:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 17850

Analyst: TN

|        |     |       |  |      |   |                     |
|--------|-----|-------|--|------|---|---------------------|
| Copper | 994 | 0.500 |  | µg/L | 1 | 8/9/2017 3:25:33 PM |
|--------|-----|-------|--|------|---|---------------------|



## Analytical Report

Work Order: 1708086  
Date Reported: 8/9/2017

**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1708086-008  
**Client Sample ID:** OCH8817-CDF-P-22  
**Collection Date:** 8/8/2017 8:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                         | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|--------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <u>Drinking Water Metals by EPA Method 200.8</u> |        |       |      | Batch ID: 17850 |    | Analyst: TN         |
| Copper                                           | 1,160  | 0.500 |      | µg/L            | 1  | 8/9/2017 3:29:34 PM |

**Lab ID:** 1708086-011  
**Client Sample ID:** OCH8817-CDF-P-38  
**Collection Date:** 8/8/2017 8:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                         | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|--------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <u>Drinking Water Metals by EPA Method 200.8</u> |        |       |      | Batch ID: 17850 |    | Analyst: TN         |
| Copper                                           | 1,230  | 0.500 |      | µg/L            | 1  | 8/9/2017 3:33:36 PM |

**Lab ID:** 1708086-014  
**Client Sample ID:** OCH8817-CDF-P-41  
**Collection Date:** 8/8/2017 8:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                         | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|--------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <u>Drinking Water Metals by EPA Method 200.8</u> |        |       |      | Batch ID: 17850 |    | Analyst: TN         |
| Copper                                           | 1,360  | 0.500 |      | µg/L            | 1  | 8/9/2017 3:37:37 PM |



## Analytical Report

Work Order: 1708086  
Date Reported: 8/9/2017

**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1708086-017  
**Client Sample ID:** OCH8817-CDF-P-57  
**Collection Date:** 8/8/2017 8:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 17850 |    | Analyst: TN         |
| Copper                                                  | 1,110  | 0.500 |      | µg/L            | 1  | 8/9/2017 3:41:38 PM |

**Lab ID:** 1708086-018  
**Client Sample ID:** OCH8817-CF-P-58  
**Collection Date:** 8/8/2017 8:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 17850 |    | Analyst: TN         |
| Copper                                                  | 1,050  | 0.500 |      | µg/L            | 1  | 8/9/2017 3:45:39 PM |

**Lab ID:** 1708086-021  
**Client Sample ID:** OCH8817-CDF-P-62  
**Collection Date:** 8/8/2017 8:00:00 AM  
**Matrix:** Drinking Water

| Analyses                                                | Result | RL    | Qual | Units           | DF | Date Analyzed       |
|---------------------------------------------------------|--------|-------|------|-----------------|----|---------------------|
| <b><u>Drinking Water Metals by EPA Method 200.8</u></b> |        |       |      | Batch ID: 17850 |    | Analyst: TN         |
| Copper                                                  | 1,420  | 0.500 |      | µg/L            | 1  | 8/9/2017 3:49:40 PM |



## Analytical Report

Work Order: 1708086

Date Reported: 8/9/2017

**CLIENT:** Fulcrum Environmental

**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1708086-022

**Collection Date:** 8/8/2017 8:00:00 AM

**Client Sample ID:** OCH8817-CF-P-63

**Matrix:** Drinking Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 17850

Analyst: TN

|        |    |       |  |      |   |                     |
|--------|----|-------|--|------|---|---------------------|
| Copper | ND | 0.500 |  | µg/L | 1 | 8/9/2017 3:57:46 PM |
|--------|----|-------|--|------|---|---------------------|

**Work Order:** 1708086  
**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|            |          |           |           |                |          |            |           |             |       |          |      |
|------------|----------|-----------|-----------|----------------|----------|------------|-----------|-------------|-------|----------|------|
| Sample ID  | MB-17850 | SampType: | MBLK      | Units:         | µg/L     | Prep Date: | 8/9/2017  | RunNo:      | 37901 |          |      |
| Client ID: | MBLKW    | Batch ID: | 17850     | Analysis Date: | 8/9/2017 | SeqNo:     | 728180    |             |       |          |      |
| Analyte    | Result   | RL        | SPK value | SPK Ref Val    | %REC     | LowLimit   | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |

|        |    |       |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|
| Copper | ND | 0.500 |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|

|            |           |                 |           |             |                         |          |                     |               |      |              |      |  |
|------------|-----------|-----------------|-----------|-------------|-------------------------|----------|---------------------|---------------|------|--------------|------|--|
| Sample ID  | LCS-17850 | SampType: LCS   |           |             | Units: µg/L             |          | Prep Date: 8/9/2017 |               |      | RunNo: 37901 |      |  |
| Client ID: | LCSW      | Batch ID: 17850 |           |             | Analysis Date: 8/9/2017 |          |                     | SeqNo: 728181 |      |              |      |  |
| Analyte    | Result    | RL              | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val   | %RPD | RPDLimit     | Qual |  |

|        |     |       |       |   |     |    |     |  |  |  |  |
|--------|-----|-------|-------|---|-----|----|-----|--|--|--|--|
| Copper | 106 | 0.500 | 100.0 | 0 | 106 | 85 | 115 |  |  |  |  |
|--------|-----|-------|-------|---|-----|----|-----|--|--|--|--|

|            |                 |           |           |                |      |            |           |             |        |          |      |
|------------|-----------------|-----------|-----------|----------------|------|------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1708073-001ADUP | SampType: | DUP       | Units:         | µg/L | Prep Date: | 8/9/2017  | RunNo:      | 37901  |          |      |
| Client ID: | BATCH           | Batch ID: | 17850     | Analysis Date: |      |            |           | 8/9/2017    | SeqNo: | 728183   |      |
| Analyte    | Result          | RL        | SPK value | SPK Ref Val    | %REC | LowLimit   | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |      |       |  |  |  |  |  |       |       |    |  |
|--------|------|-------|--|--|--|--|--|-------|-------|----|--|
| Copper | 69.3 | 0.500 |  |  |  |  |  | 68.62 | 0.944 | 30 |  |
|--------|------|-------|--|--|--|--|--|-------|-------|----|--|

|            |                |           |           |                |      |            |           |             |        |          |      |
|------------|----------------|-----------|-----------|----------------|------|------------|-----------|-------------|--------|----------|------|
| Sample ID  | 1708073-001AMS | SampType: | MS        | Units:         | µg/L | Prep Date: | 8/9/2017  | RunNo:      | 37901  |          |      |
| Client ID: | BATCH          | Batch ID: | 17850     | Analysis Date: |      |            |           | 8/9/2017    | SeqNo: | 728184   |      |
| Analyte    | Result         | RL        | SPK value | SPK Ref Val    | %REC | LowLimit   | HighLimit | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |     |       |       |       |     |    |     |  |  |  |  |
|--------|-----|-------|-------|-------|-----|----|-----|--|--|--|--|
| Copper | 277 | 0.500 | 200.0 | 68.62 | 104 | 70 | 130 |  |  |  |  |
|--------|-----|-------|-------|-------|-----|----|-----|--|--|--|--|

|            |                 |                 |           |             |                         |          |                     |               |      |              |      |  |
|------------|-----------------|-----------------|-----------|-------------|-------------------------|----------|---------------------|---------------|------|--------------|------|--|
| Sample ID  | 1708073-001AMSD | SampType: MSD   |           |             | Units: µg/L             |          | Prep Date: 8/9/2017 |               |      | RunNo: 37901 |      |  |
| Client ID: | BATCH           | Batch ID: 17850 |           |             | Analysis Date: 8/9/2017 |          |                     | SeqNo: 728185 |      |              |      |  |
| Analyte    | Result          | RL              | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val   | %RPD | RPDLimit     | Qual |  |

|        |     |       |       |       |     |    |     |       |      |    |  |
|--------|-----|-------|-------|-------|-----|----|-----|-------|------|----|--|
| Copper | 286 | 0.500 | 200.0 | 68.62 | 109 | 70 | 130 | 277.5 | 3.02 | 30 |  |
|--------|-----|-------|-------|-------|-----|----|-----|-------|------|----|--|



Work Order Number: **1708086**  
Date Received: **8/9/2017 9:23:00 AM**

|                                  |                                         |                             |                                      |
|----------------------------------|-----------------------------------------|-----------------------------|--------------------------------------|
| 1. Is Chain of Custody complete? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 2. How was the sample delivered? | UPS                                     |                             |                                      |

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

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

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

HNO<sub>3</sub> added to 002A, 003A, 005A, 006A, 009A, 010A, 012A, 013A, 015A, 016A, 019A, & 020A

| Item # | Temp °C |
|--------|---------|
| Cooler | 4.6     |
| Sample | 3.0     |

Original



# Chain of Custody Record and Laboratory Services Agreement

3600 Fremont Ave N.  
Seattle, WA 98103

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

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street

City, State, Zip: Yakima, WA, 98901

Telephone: 509.574.0839

Fax: 509.575.8453

Project Name: PSD Drinking Water - Ochoa Middle School

Project No: 161898.06

Location: Ellen Ochoa Middle School, Pasco, WA

Report To (PM): Ryan Mathews

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

Date: 8/8/2017

Laboratory Project No (Internal): 17080846

Page: 1 of 3

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

| Sample Name         | Sample Date | Sample Time | Sample Type (Matrix)* | VOGs (EPA 8260 / 624) | GYBTX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCID) | SVOCs (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals** (EPA 6020 / 200.8) | Total (T)   Dissolved (D) | Anions (IC)*** | EDB (8011) | HNO3 Preserved | Comments |  |
|---------------------|-------------|-------------|-----------------------|-----------------------|-------|------|------------------------------|-----------------------------------|------------------------|-----------------------|-----------------------|-----------------------------|---------------------------|----------------|------------|----------------|----------|--|
| 1 OCHB817-OF-P-13   | 8/8/2017    | 800         | DW                    |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 2 OCHB817-OF-S-13   |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 3 OCHB817-OF-T-13   |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 4 OCHB817-NF-P-14   |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 5 OCHB817-NF-S-14   |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 6 OCHB817-NF-T-14   |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 7 OCHB817-NF-P-15   |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 8 OCHB817-COF-P-22  |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 9 OCHB817-COF-S-22  |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |
| 10 OCHB817-COF-T-22 |             |             |                       |                       |       |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |  |

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

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

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

Requisitioned: Amelia M. E. Date/Time: 8/8/2017, 1600 Received: [Signature] Date/Time: 8/9/2017 0923

Relinquished: X Date/Time:  Received: X Date/Time:

Special Remarks: Please preserve all unprocessed

TAT: ASAP

TAT → SameDay^ NextDay^ 2 Day 3 Day STD

\*Please coordinate with the lab in advance



# Fremont

Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

## Chain of Custody Record and Laboratory Services Agreement

Date: 8/8/2017

Laboratory Project No (Internal): 17080810  
Page: 2 of 3

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street  
Yakima, WA, 98901

City, State, Zip: 509.574.0839  
Telephone: 509.575.8453

Project Name: PSD Drinking Water - Ochoa Middle School  
Project No: 161898.06  
Location: Ellen Ochoa Middle School, Pasco, WA  
Report To (PM): Ryan Mathews  
PM Email: rmathews@fulcrum.net; cc: aenbysk@fulcrum.net

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

| Sample Name        | Sample Date | Sample Time | Sample Type (Matrix)* | VOCS (EPA 8260 / 624) | GYBTEX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCID) | SVOCS (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals** (EPA 6020 / 200.8) | Total (T) / Dissolved (D) | Anions (IC)*** | EDB (8011) | HNO3 Preserved | Comments |
|--------------------|-------------|-------------|-----------------------|-----------------------|--------|------|------------------------------|-----------------------------------|------------------------|-----------------------|-----------------------|-----------------------------|---------------------------|----------------|------------|----------------|----------|
| 1 OC#B817-COF-P-38 | 8/8/2017    | 800         | DW                    |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 2 OC#B817-COF-S-38 |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 3 OC#B817-COF-T-38 |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 4 OC#B817-COF-P-41 |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 5 OC#B817-COF-S-41 |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 6 OC#B817-COF-T-41 |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 7 OC#B817-COF-P-57 |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 8 OC#B817-CF-P-58  |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 9 OC#B817-CF-S-58  |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |
| 10 OC#B817-CF-T-58 |             |             |                       |                       |        |      |                              |                                   |                        |                       |                       |                             |                           |                |            |                |          |



**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103

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

Client: Fulcrum Environmental Consulting

Address: 406 North Second Street

City, State, Zip: Yakima, WA, 98901

Telephone: 509.574.0839

Fax: 509.575.8453

# Chain of Custody Record and Laboratory Services Agreement

Date: 8/8/2017

Laboratory Project No (Internal): 1708086

Page: 3 of 3

Project Name: PSD Drinking Water - Ochoa Middle School

Project No: 161898.06

Location: Ellen Ochoa Middle School, Pasco, WA

Report To (PM): Ryan Mathews

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

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

| Sample Name        | Sample Date | Sample Time | Sample Type (Matrix) * | VOCs (EPA 8260 / 624) | GX/BTEX | BTEX | Gasoline Range Organics (GX) | Hydrocarbon Identification (HCID) | Diesel/Heavy Oil Range Organics (DX) | SVOs (EPA 8270 / 625) | PAHs (EPA 8270 - SIM) | PCBs (EPA 8082 / 608) | Metals** (EPA 6020 / 200.8) | Total (T) / Dissolved (D) | Anions (IC)*** | EDB (8011) | HNO3 Preserved | Comments |  |
|--------------------|-------------|-------------|------------------------|-----------------------|---------|------|------------------------------|-----------------------------------|--------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|---------------------------|----------------|------------|----------------|----------|--|
| 1 OC#8817-40F-P-62 | 8/8/2017    | 800         | DW                     |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 2 OC#8817-40F-P-63 |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 3                  |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 4                  |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 5                  |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 6                  |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 7                  |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 8                  |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 9                  |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |
| 10                 |             |             |                        |                       |         |      |                              |                                   |                                      |                       |                       |                       |                             |                           |                |            |                |          |  |

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

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

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

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

Relinquished: [Signature] Date/Time: 8/8/17 1600 Received: [Signature] Date/Time: 8/9/2017 0923

Relinquished: [Signature] Date/Time: [Blank] Received: [Signature] Date/Time: [Blank]

TAT → SameDay ✓ NextDay ✓ 2 Day 3 Day STD

\*Please coordinate with the lab in advance

Special Remarks: see page 1



**Fremont**  
*Analytical*

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T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Fulcrum Environmental**

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

**RE: PSD Drinking Water - Ochoa Middle School**  
**Work Order Number: 1710375**

October 24, 2017

**Attention Ryan Mathews:**

Fremont Analytical, Inc. received 4 sample(s) on 10/23/2017 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

**CC:**  
Amanda Enbysk

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**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School  
**Work Order:** 1710375

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**Work Order Sample Summary**

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| Lab Sample ID | Client Sample ID   | Date/Time Collected | Date/Time Received |
|---------------|--------------------|---------------------|--------------------|
| 1710375-001   | OCH101817-DF-P-07  | 10/18/2017 7:30 AM  | 10/23/2017 2:14 PM |
| 1710375-002   | OCH101917-CDF-P-51 | 10/19/2017 7:00 AM  | 10/23/2017 2:14 PM |
| 1710375-003   | OCH101817-CDF-P-62 | 10/18/2017 7:30 AM  | 10/23/2017 2:14 PM |
| 1710375-004   | OCH101817-CDF-P-63 | 10/18/2017 7:30 AM  | 10/23/2017 2:14 PM |

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**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

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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:

1710375-001A 242171: Prep Comments for EPA200.8, Sample 1710375-001A: Turbidity: 0.00 NTU  
1710375-002A 242172: Prep Comments for EPA200.8, Sample 1710375-002A: Turbidity: 0.00 NTU  
1710375-003A 242173: Prep Comments for EPA200.8, Sample 1710375-003A: Turbidity: 0.00 NTU  
1710375-004A 242174: Prep Comments for EPA200.8, Sample 1710375-004A: Turbidity: 0.00 NTU

**Qualifiers:**

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

**Acronyms:**

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



## Analytical Report

Work Order: 1710375

Date Reported: 10/24/2017

**CLIENT:** Fulcrum Environmental

**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1710375-001

**Client Sample ID:** OCH101817-DF-P-07

**Collection Date:** 10/18/2017 7:30:00 AM

**Matrix:** Drinking Water

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|----------|--------|-----|------|-------|----|---------------|
|----------|--------|-----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 18624

Analyst: TN

|        |     |       |  |      |   |                        |
|--------|-----|-------|--|------|---|------------------------|
| Copper | 193 | 0.500 |  | µg/L | 1 | 10/24/2017 11:47:56 AM |
|--------|-----|-------|--|------|---|------------------------|

**Lab ID:** 1710375-002

**Client Sample ID:** OCH101917-CDF-P-51

**Collection Date:** 10/19/2017 7:00:00 AM

**Matrix:** Drinking Water

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|----------|--------|-----|------|-------|----|---------------|
|----------|--------|-----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 18624

Analyst: TN

|        |     |       |  |      |   |                        |
|--------|-----|-------|--|------|---|------------------------|
| Copper | 601 | 0.500 |  | µg/L | 1 | 10/24/2017 11:51:57 AM |
|--------|-----|-------|--|------|---|------------------------|

**Lab ID:** 1710375-003

**Client Sample ID:** OCH101817-CDF-P-62

**Collection Date:** 10/18/2017 7:30:00 AM

**Matrix:** Drinking Water

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|----------|--------|-----|------|-------|----|---------------|
|----------|--------|-----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 18624

Analyst: TN

|        |       |       |   |      |   |                        |
|--------|-------|-------|---|------|---|------------------------|
| Copper | 1,240 | 0.500 | E | µg/L | 1 | 10/24/2017 11:55:59 AM |
|--------|-------|-------|---|------|---|------------------------|



Work Order: 1710375

Date Reported: 10/24/2017

**CLIENT:** Fulcrum Environmental

**Project:** PSD Drinking Water - Ochoa Middle School

**Lab ID:** 1710375-004

**Collection Date:** 10/18/2017 7:30:00 AM

**Client Sample ID:** OCH101817-CDF-P-63

**Matrix:** Drinking Water

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|----------|--------|-----|------|-------|----|---------------|
|----------|--------|-----|------|-------|----|---------------|

**Drinking Water Metals by EPA Method 200.8**

Batch ID: 18624

Analyst: TN

|        |       |       |  |      |   |                        |
|--------|-------|-------|--|------|---|------------------------|
| Copper | 0.550 | 0.500 |  | µg/L | 1 | 10/24/2017 12:00:01 PM |
|--------|-------|-------|--|------|---|------------------------|

**Work Order:** 1710375  
**CLIENT:** Fulcrum Environmental  
**Project:** PSD Drinking Water - Ochoa Middle School

## QC SUMMARY REPORT

### Drinking Water Metals by EPA Method 200.8

|            |          |           |       |           |             |                |            |           |             |      |          |      |
|------------|----------|-----------|-------|-----------|-------------|----------------|------------|-----------|-------------|------|----------|------|
| Sample ID  | MB-18624 | SampType: | MBLK  | Units:    | µg/L        | Prep Date:     | 10/24/2017 | RunNo:    | 39440       |      |          |      |
| Client ID: | MBLKW    | Batch ID: | 18624 |           |             | Analysis Date: | 10/24/2017 | SeqNo:    | 759000      |      |          |      |
| Analyte    |          | Result    | RL    | SPK value | SPK Ref Val | %REC           | LowLimit   | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|        |    |       |  |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|--|
| Copper | ND | 0.500 |  |  |  |  |  |  |  |  |  |  |
|--------|----|-------|--|--|--|--|--|--|--|--|--|--|

|            |           |           |           |             |      |                |            |             |        |          |      |
|------------|-----------|-----------|-----------|-------------|------|----------------|------------|-------------|--------|----------|------|
| Sample ID  | LCS-18624 | SampType: | LCS       | Units:      | µg/L | Prep Date:     | 10/24/2017 | RunNo:      | 39440  |          |      |
| Client ID: | LCSW      | Batch ID: | 18624     |             |      | Analysis Date: | 10/24/2017 | SeqNo:      | 759001 |          |      |
| Analyte    | Result    | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit  | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |      |       |       |   |      |    |     |  |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|--|
| Copper | 85.8 | 0.500 | 100.0 | 0 | 85.8 | 85 | 115 |  |  |  |  |  |
|--------|------|-------|-------|---|------|----|-----|--|--|--|--|--|

|            |                 |           |           |             |      |                |            |             |        |          |      |
|------------|-----------------|-----------|-----------|-------------|------|----------------|------------|-------------|--------|----------|------|
| Sample ID  | 1710374-001ADUP | SampType: | DUP       | Units:      | µg/L | Prep Date:     | 10/24/2017 | RunNo:      | 39440  |          |      |
| Client ID: | BATCH           | Batch ID: | 18624     |             |      | Analysis Date: | 10/24/2017 | SeqNo:      | 759003 |          |      |
| Analyte    | Result          | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit  | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |      |       |  |  |  |  |  |  |       |      |    |  |
|--------|------|-------|--|--|--|--|--|--|-------|------|----|--|
| Copper | 60.9 | 0.500 |  |  |  |  |  |  | 57.97 | 4.94 | 30 |  |
|--------|------|-------|--|--|--|--|--|--|-------|------|----|--|

|            |                |           |       |           |             |                |            |           |             |      |          |      |
|------------|----------------|-----------|-------|-----------|-------------|----------------|------------|-----------|-------------|------|----------|------|
| Sample ID  | 1710374-001AMS | SampType: | MS    | Units:    | µg/L        | Prep Date:     | 10/24/2017 | RunNo:    | 39440       |      |          |      |
| Client ID: | BATCH          | Batch ID: | 18624 |           |             | Analysis Date: | 10/24/2017 | SeqNo:    | 759004      |      |          |      |
| Analyte    |                | Result    | RL    | SPK value | SPK Ref Val | %REC           | LowLimit   | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|        |     |       |       |       |      |    |     |  |  |  |  |  |
|--------|-----|-------|-------|-------|------|----|-----|--|--|--|--|--|
| Copper | 240 | 0.500 | 200.0 | 57.97 | 90.8 | 70 | 130 |  |  |  |  |  |
|--------|-----|-------|-------|-------|------|----|-----|--|--|--|--|--|

|            |                 |           |           |             |      |                |            |             |        |          |      |
|------------|-----------------|-----------|-----------|-------------|------|----------------|------------|-------------|--------|----------|------|
| Sample ID  | 1710374-001AMSD | SampType: | MSD       | Units:      | µg/L | Prep Date:     | 10/24/2017 | RunNo:      | 39440  |          |      |
| Client ID: | BATCH           | Batch ID: | 18624     |             |      | Analysis Date: | 10/24/2017 | SeqNo:      | 759005 |          |      |
| Analyte    | Result          | RL        | SPK value | SPK Ref Val | %REC | LowLimit       | HighLimit  | RPD Ref Val | %RPD   | RPDLimit | Qual |

|        |     |       |       |       |      |    |     |       |      |    |  |
|--------|-----|-------|-------|-------|------|----|-----|-------|------|----|--|
| Copper | 221 | 0.500 | 200.0 | 57.97 | 81.6 | 70 | 130 | 239.5 | 8.01 | 30 |  |
|--------|-----|-------|-------|-------|------|----|-----|-------|------|----|--|

Client Name: **FE**  
 Logged by: **Clare Griggs**

Work Order Number: **1710375**  
 Date Received: **10/23/2017 2:14:00 PM**

## Chain of Custody

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

## Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
 4. Shipping container/cooler in good condition? Yes ☒ No ☐  
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒  
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
 7. Were all items received at a temperature of >0°C to 10.0°C \* Yes ☐ No ☒ NA ☐

## Metals in water, preserved.

8. Sample(s) in proper container(s)? Yes ☒ No ☐  
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 10. Are samples properly preserved? Yes ☒ No ☐  
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 14. Does paperwork match bottle labels? Yes ☒ No ☐  
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 16. Is it clear what analyses were requested? Yes ☒ No ☐  
 17. Were all holding times able to be met? Yes ☒ No ☐

## Special Handling (if applicable)

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

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

19. Additional remarks:

## Item Information

| Item # | Temp °C |
|--------|---------|
| Cooler | 18.2    |
| Sample | 15.7    |

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



**3600 Fremont Ave N.  
Seattle, WA 98103  
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Fax: 206-352-7178**

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

**Address:** 406 North Second Street

City, State, Zip: Yakima, WA, 98901

**Telephone:** 509.574.0839

**Fax: 509.575.8453**

PM Email:

rmathews@efulcrum.net; cc: aenbysk@efulcrum.net

**Project Name:** PSD Drinking Water - Ochoa Middle School

Project No: 161898.06 Collected by: Amanda Enbysk

**Location:** Ellen Ochoa Middle School, Pasco, WA

**Report To (PM):** Ryan Mathews

Date: 10/19/2017

**Laboratory Project No (internal):**

Page: 1 of: 1

1710375

Page 9 of 9

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