

TRIP REPORT

Hedges Creek Copper Solution Release

Tualatin, Oregon

TASK ORDER No.: 68HE0720F0147

SUBTASK No.: 68HE0720F0147-06



Prepared for:

U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, WA 98101

Prepared by:

Weston Solutions, Inc.
1011 SW Klickitat Way, Suite 212
Seattle, WA 98134

September 2021

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Prepared by:



Bryon Alexander
START-V Field Team Lead

Date: 9/3/2021

Approved by:



Richard Mehl
START-V
Emergency Response Team
Leader

Date: 9/3/2021

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1 PLACE VISITED

| | |
|-----------------------------|---|
| Site Name: | Hedges Creek Copper Solution Release |
| Location: | Hedges Creek Greenway, Tualatin, Oregon |
| Latitude, Longitude: | 45.364077° North, 122.782297° West |
| Date(s) of Trip: | 7/1/2021 |

2 PURPOSE

The U.S. Environmental Protection Agency (USEPA) performed an emergency response action at the Hedges Creek Copper Solution Release Site (hereafter referred to as the Site) in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. USEPA tasked Weston Solutions, Inc. (WESTON®), under Superfund Technical Assessment and Response Team (START) contract No. 68HE0720D0005, Task Order No. 68HE0720F0147, Subtask No. 68HE0720F0147-06, to assist with documenting Site conditions and sampling and analytical support during an emergency response to a spill of CuSol®-5, a copper-based pesticide solution, into Hedges Creek in Tualatin, Oregon (**Figure 1**). The emergency response action was completed on July 1, 2021. The purpose of the Hedges Creek Copper Solution Release emergency response was to:

- Assess the extent of the release of CuSol-5 solution into Hedges Creek as directed by USEPA; and
- Collect surface water and co-located sediment samples from Hedges Creek to determine concentrations of total metals, specifically, copper.
- Collect one soil sample from the residential property.

This Trip Report includes the following attachments associated with the tasks outlined above:

- Attachment A – Photographic Documentation
- Attachment B – Laboratory Analytical Results

3 PERSONS INVOLVED

Table 3-1 Participating Organizations

| Agency/Company | Contact Persons/Position | Phone Number |
|--|---|---------------------|
| USEPA Region 10 (R10) | Randy Natis, Federal On-Scene Coordinator (OSC) | (503) 628-9419 |
| START | Bryon Alexander, Field Team Lead | (503) 899-7556 |
| Oregon Department of Environmental Quality (DEQ) | Michael Greenburg, State OSC | (503) 229-5153 |
| Oregon Department of Agriculture | Ben Beeles, Pesticide Investigator | (503) 986-5140 |

| Agency/Company | Contact Persons/Position | Phone Number |
|--|---|----------------|
| City of Tualatin Parks and Recreation (CTPR) Department | Tom Steiger, Parks Maintenance Manager | (503) 691-3085 |
| US Ecology (DEQ Response Contractor) | Jason Potts, Western Regional Emergency Response Manager | (206) 607-3000 |

4 BACKGROUND

On June 30, 2021, the USEPA R10 Phone Duty Officer (PDO) received a report from the Oregon DEQ. The release was initially reported to DEQ by CTPR employees who were completing work near Hedges Creek when they observed impacts from release. Approximately 300 gallons of CuSol-5 solution was released into Hedges Creek in Tualatin, Oregon. The creek was observed to be an orange color at the time of the release. The release occurred while High Quality Roofing and Pressure Washing (a roofing contractor) was treating a cedar shingle roof at the residence located at 10195 SW Alsea Court, Tualatin, Oregon with CuSol -5, a copper-based pesticide for exterior wood treatment. Excess CuSol-5 solution flowed from the treated roof to the gutters and downspouts of the residence and then simultaneously flowed overland and directly into Hedges Creek and a nearby stormwater catch basin in the adjoining cul-de-sac. The impacted stormwater catch basin discharges to Hedges Creek. Orange-colored water was observed in the catch basin. The release occurred approximately 3 miles from the confluence of Hedges Creek and the Tualatin River. Approximately 300 to 500 feet of Hedges Creek was observed to be impacted by the CuSol-5 solution release.

CuSol-5 is a copper-based pesticide used to treat residential exterior wood finishes to prevent the growth of moss and other organisms and is considered toxic to aquatic organisms. According to the product label, CuSol-5 is prepared as a treatment solution by diluting CuSol-5 concentrate with water at a ratio of 1 to 4 parts water. A dye was added to the solution to dye the wood shingle roof during treatment at the residence. The dye contributed to the orange discoloration of impacted surface water. Typically, a solution of CuSol-5 and water is transparent and without the dye additive there would have been no immediately observable evidence of the release.

The following is a chronology of June 30, 2021, as reported by Mr. Tom Steiger (CTPR Parks Maintenance Manager), when the release was initially observed by CTPR employees:

- **1245** – A CTPR Maintenance Technician observed that an approximately 100-yard segment of Hedges Creek had turned a deep orange color and therefore he reported the release to Mr. Steiger.
- **1300 to 1315** – Additional CTPR personnel were dispatched to the Site.
- **1315 to 1330** – The CTPR crew arrived and identified the source and pathways of the release and Potentially Responsible Party (PRP) as High Quality Roofing and Pressure Washing (CCB # 233259). The roofing contractor was asked to immediately stop work.

- **1330 to 1345** – The CTPR crew completed a walk of the creek and determined that the orange color was primarily contained to approximately 200 feet downstream from the release point.
- **1345 to 1445** – The CTPR crew deployed absorption waddles along the creek. Mr. Steiger also informed the roofing contractor that DEQ would have to be notified of the incident.

US Ecology (spill response contractor for DEQ) was mobilized to the Site following discovery of the release to deploy counter measures and response equipment to pump and treat impacted surface water.

5 FIELD ACTIVITIES

5.1 Mobilization and Site Set Up

USEPA mobilized two START personnel to the Site on July 1, 2021, with the Portland Emergency Response Truck (PERT) and surface water sampling supplies. Reconnaissance activities included assessing the residence where the release was reported to originate from and downstream of the release within Hedges Creek. START personnel completed a site walk upon arriving at the Site. Hedges Creek appeared to be flowing clear during the assessment of the creek. No stressed vegetation or impacted aquatic life were observed during the response. US Ecology (DEQ spill response contractor) plugged the culvert downstream of the release with an inflatable plugging system used to stop water from flowing through pipes and culverts. A pump system was deployed at a collection point on the upstream side of the plugged culvert to pump impacted surface water into frac tanks. The primary frac tank held water pumped during the initial phases of the response. START collected water samples from the primary frac tank for laboratory analysis. Five frac tanks and a carbon treatment system were deployed to collect and treat impacted surface water during the response. Four co-located surface water and sediment sample locations were selected within Hedges Creek. Co-located surface water and sediment samples were collected from one upstream background location, a boomed area (dam) set up by US Ecology (DEQ spill response contractor) near the release point, downstream from the release near a plugged culvert, and one background downstream location beyond the plugged culvert outfall. One surface soil location was selected at the residential property where the release occurred.

5.2 START Sampling Locations and Results

5.2.1 Sampling Methodology

Surface water, sediment, and soil samples were collected and submitted for laboratory analysis of total metals by USEPA Method 6020B. Surface water samples were collected directly into 1 Liter high density polyethylene (HDPE) sample bottles and preserved with nitric acid (HNO_3) following sample collection. Soil and sediment samples were collected with dedicated plastic scoops into a zip-top bag and were homogenized and placed into 8-ounce glass sample jars with Teflon[®]-lined lids. All samples were packaged for shipment and stored on ice to below 6 degrees Celsius. The packaged samples were shipped via FedEx overnight delivery and received at Eurofins Test America's Tacoma, Washington facility on July 2, 2021, for processing.

5.2.2 Sampling Locations

Sampling locations were selected along Hedges Creek based on the extent of impacts from the release of the CuSol-5 solution. As described in Section 5.1, four co-located surface water and sediment sample locations were selected. Duplicate surface water and sediment samples (SW-03 / SE-03) were collected from sample location SW-02 / SE-02. Two background sample locations were selected, one from upstream of the release (SW-BG-U) and one from downstream of the culvert beyond the impacted area (SW-BG-D). Sample SW-BG-D was selected as a downstream background sample considering that the released CuSol-5 product is unlikely to have impacted surface water downstream of the plugged culvert. Surface water sample SW-01 was collected near the dam where the water was previously observed to be colored orange from the release. One surface water sample was collected from the upstream side of the plugged culvert. No visible surface water impacts were noted during sampling. One water sample (SW-FR) was collected from the primary frac tank, which was initially used to pump impacted water from the upstream side of the plugged culvert. The discoloration previously noted to be associated with the CuSol-5 solution was not observed in the water in the frac tank at the time of the sampling. One surface soil sample (SS-01) was collected from between 0-3 inches below ground surface (bgs) from the residential property along the slope leading to Hedges Creek. No evidence of staining or saturation was observed in the area where soil sample SS-01 was collected or in any of the surface soil at the residential property (**Figure 2**).

5.2.3 Surface Water Analytical Results

Numerous target analyte list metals were detected in surface water samples collected from Hedges Creek and the primary frac tank at concentrations exceeding background surface water analyte concentrations. Aluminum, arsenic, total chromium, cobalt, copper, iron, lead, manganese, nickel, vanadium, and zinc were detected at concentrations significantly above the background analyte concentrations in surface water samples collected from Hedges Creek. Copper and nickel were detected at concentrations significantly above background analyte concentrations in the frac tank water sample. Analytical results for analytes detected above surface water background concentrations are presented in **Table 1**. Complete laboratory analytical results are provided in **Appendix B**.

5.2.4 Surface Soil and Sediment Analytical Results

Numerous target analyte list metals were detected in the residential soil sample collected. Additionally, numerous target analyte list metals were also detected in the sediment samples collected from Hedges Creek at concentrations exceeding background sediment analyte concentrations. Analytical results for analytes detected above sediment background concentrations are presented in **Table 2**. Complete laboratory analytical results are provided in **Appendix B**.

6 RESPONSE CONTRACTOR ACTIVITIES

The DEQ response contractor (US Ecology) completed pump and treatment activities at the collection point located on the upstream side of the plugged culvert on July 9, 2021. US Ecology also completed surface water and sediment sampling within Hedges Creek. Impacted surface water stored in frac tanks was treated using carbon filtration and discharged back into Hedges Creek between July 7, 2021 to July 9, 2021. However, impacted surface water stored in the primary frac tank, used to initially pump surface water from the collection point, is currently being stored until

the contents can be properly characterized for discharge to the creek or municipal sewer system for treatment.

7 CONCLUSIONS

7.1 Summary of Activities

USEPA mobilized START on July 1, 2021, following a release of CuSol-5 solution on June 30, 2021. The release was initially reported to DEQ following observations of the release by CTPR. Surface water and sediment sampling was completed within Hedges Creek to assess impacts to the creek from the CuSol-5 solution release. One soil sample was also collected from surface soils along the slope of the residential property leading to Hedges Creek. Impacted surface water was also observed in a stormwater catch basin that discharges to Hedges Creek. Hedges Creek was flowing and appeared clear of the orange CuSol-5 solution during the USEPA response on July 1, 2021. The DEQ spill response contractor (US Ecology) deployed an inflatable plug system in the downstream culvert from the release point, a pump system, frac tanks to hold impacted surface water, and a carbon treatment system.

7.2 Conclusions

Hedges Creek was observed to be flowing clear during the Site reconnaissance. No stressed vegetation or impacted aquatic life were observed during the response. Analytical results indicated that copper and numerous other metals were detected in surface water samples and the frac tank sample at concentrations exceeding the surface water background analyte concentrations. Numerous metals were detected at concentrations exceeding background analyte concentrations in sediment samples collected from within Hedges Creek and the residential soil sample.

TABLES

Table 1
Surface Water Analytical Results Summary

| | | | SW-BG-U | | SE-BG-D | | SW-01 | | SW-02 | | SW-03 (SW-02 dup) | | SW-FR | |
|------------------|-----------|-------|--------------------------|----|----------------------------|----|--------------------------|----|------------------------------|----|------------------------------|----|----------------|----|
| Analyte | CAS No. | Units | Background - Upstream | | Background - Downstream | | Downstream - Dam Area | | Downstream - Culvert Area | | Downstream - Culvert Area | | Frac Tank | |
| Aluminum | 7429-90-5 | mg/L | 0.69 | | 0.49 | | 2.3 | | 2.3 | JK | 6.2 | JK | 0.49 | |
| Antimony | 7440-36-0 | mg/L | 0.00063 | U | 0.00063 | U | 0.00063 | U | 0.00063 | U | 0.00063 | U | 0.00063 | U |
| Arsenic | 7440-38-2 | mg/L | 0.001 | U | 0.001 | U | 0.0034 | JQ | 0.0014 | JQ | 0.0031 | JQ | 0.0015 | JQ |
| Barium | 7440-39-3 | mg/L | 0.044 | | 0.037 | | 0.12 | | 0.06 | JK | 0.12 | JK | 0.038 | |
| Beryllium | 7440-41-7 | mg/L | 0.00055 | U | 0.00055 | U | 0.00055 | U | 0.00055 | U | 0.00055 | U | 0.00055 | U |
| Cadmium | 7440-43-9 | mg/L | 0.00019 | U | 0.00019 | U | 0.00019 | U | 0.00019 | U | 0.00019 | U | 0.00019 | U |
| Calcium | 7440-70-2 | mg/L | 15 | U | 18 | JQ | 21 | JQ | 19 | JQ | 23 | JQ | 18 | JQ |
| Chromium (Total) | 7440-47-3 | mg/L | 0.0013 | JQ | 0.0015 | JQ | 0.0061 | | 0.0038 | JQ | 0.0097 | | 0.0015 | JQ |
| Cobalt | 7440-48-4 | mg/L | 0.001 | JQ | 0.00094 | JQ | 0.0043 | | 0.0019 | JQ | 0.0046 | | 0.0011 | JQ |
| Copper | 7440-50-8 | mg/L | 0.003 | U | 0.003 | U | 0.03 | | 0.0036 | JQ | 0.015 | | 0.0047 | JQ |
| Iron | 7439-89-6 | mg/L | 1.7 | | 1.6 | | 13 | | 4.1 | JK | 9.7 | JK | 3.2 | |
| Lead | 7439-92-1 | mg/L | 0.00028 | JQ | 0.0002 | U | 0.0017 | JQ | 0.0014 | JQ | 0.0044 | | 0.00059 | JQ |
| Magnesium | 7439-95-4 | mg/L | 15 | U | 15 | U | 15 | U | 15 | U | 15 | U | 15 | U |
| Manganese | 7439-96-5 | mg/L | 0.12 | | 0.13 | | 0.71 | | 0.15 | JK | 0.28 | JK | 0.21 | |
| Nickel | 7440-02-0 | mg/L | 0.0014 | JQ | 0.0013 | JQ | 0.0048 | JQ | 0.0027 | JQ | 0.0059 | JQ | 0.0054 | JQ |
| Potassium | 7440-09-7 | mg/L | 15 | U | 15 | U | 15 | U | 15 | U | 15 | U | 15 | U |
| Selenium | 7782-49-2 | mg/L | 0.01 | U | 0.01 | U | 0.01 | U | 0.01 | U | 0.01 | U | 0.01 | U |
| Silver | 7440-22-4 | mg/L | 0.00013 | U | 0.00013 | U | 0.00013 | U | 0.00013 | U | 0.00013 | U | 0.00013 | U |
| Sodium | 7440-23-5 | mg/L | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| Thallium | 7440-28-0 | mg/L | 0.00015 | U | 0.00015 | U | 0.00015 | U | 0.00015 | U | 0.00015 | U | 0.00015 | U |
| Vanadium | 7440-62-2 | mg/L | 0.0048 | JQ | 0.0054 | JQ | 0.021 | | 0.014 | JQ | 0.031 | | 0.0055 | JQ |
| Zinc | 7440-66-6 | mg/L | 0.037 | | 0.035 | UE | 0.26 | | 0.072 | JK | 0.13 | JK | 0.035 | UB |

Notes:

Highlighted Result = Result exceeds three times one or more of the background concentrations.

Bold results = Result exceeds one or more of the analyte background concentrations.

< = Analytes detected below laboratory reporting limits are listed as less than applicable method detection limit value

dup= Duplicate sample

mg/L = milligrams per liter

Qualifiers:

J= Estimated value; the following modifiers may be appended to the "J" qualifier to indicate bias in results:

H= High bias.

K= Unknown bias.

Q= The reported concentration is less than the sample quantitation limit for the specific analyte.

U= The analyte was not detected. The reported value is the sample quantitation limit.

B= Modifier appended to "U" qualifier. Presence of analyte may be attributable to blank contamination. Result is not detected.

Table 2
Sediment and Soil Analytical Results Summary

| | | | SE-BG-U | | SE-BG-D | | SE-01 | | SE-02 | | SE-03 (SE-02 dup) | | SS-01 | |
|------------------|-----------|-------|--------------------------|----|----------------------------|----|--------------------------|----|------------------------------|----|------------------------------|----|------------------------|----|
| Analyte | CAS No. | Units | Background - Upstream | | Background - Downstream | | Downstream - Dam Area | | Downstream - Culvert Area | | Downstream - Culvert Area | | Spill Location Soil | |
| Aluminum | 7429-90-5 | mg/kg | 11000 | | 11000 | | 12000 | | 13000 | | 14000 | | 17000 | |
| Antimony | 7440-36-0 | mg/kg | 0.15 | JQ | 0.26 | JQ | 0.16 | JQ | 0.35 | JQ | 0.37 | JQ | 0.27 | JQ |
| Arsenic | 7440-38-2 | mg/kg | 4 | | 4 | | 3.6 | | 3.6 | | 4.2 | | 4.3 | |
| Barium | 7440-39-3 | mg/kg | 120 | JH | 120 | JH | 140 | JH | 140 | JH | 150 | JH | 180 | JH |
| Beryllium | 7440-41-7 | mg/kg | 0.5 | | 0.38 | | 0.53 | | 0.51 | | 0.55 | | 0.57 | |
| Cadmium | 7440-43-9 | mg/kg | 0.099 | JQ | 0.12 | JQ | 0.081 | JQ | 0.15 | JQ | 0.19 | JQ | 0.11 | JQ |
| Calcium | 7440-70-2 | mg/kg | 4000 | JH | 3800 | JH | 3800 | JH | 3800 | JH | 4300 | JH | 4800 | JH |
| Chromium (Total) | 7440-47-3 | mg/kg | 20 | | 23 | | 23 | | 24 | | 26 | | 20 | |
| Cobalt | 7440-48-4 | mg/kg | 11 | | 11 | | 12 | | 10 | | 13 | | 15 | |
| Copper | 7440-50-8 | mg/kg | 16 | JH | 18 | JH | 12 | JH | 24 | JH | 27 | JH | 22 | JH |
| Iron | 7439-89-6 | mg/kg | 30000 | | 24000 | | 27000 | | 25000 | | 25000 | | 30000 | |
| Lead | 7439-92-1 | mg/kg | 6.7 | | 7.9 | | 6 | | 9.7 | | 11 | | 13 | |
| Magnesium | 7439-95-4 | mg/kg | 3000 | JH | 2700 | JH | 2900 | JH | 2900 | JH | 3200 | JH | 3600 | JH |
| Manganese | 7439-96-5 | mg/kg | 350 | | 410 | | 370 | | 240 | | 250 | | 860 | |
| Nickel | 7440-02-0 | mg/kg | 13 | | 12 | | 14 | | 13 | | 15 | | 17 | |
| Potassium | 7440-09-7 | mg/kg | 680 | | 550 | | 600 | | 840 | | 930 | | 1700 | |
| Selenium | 7782-49-2 | mg/kg | 2.5 | | 3 | | 2.6 | | 3.1 | | 3.8 | | 2.9 | |
| Silver | 7440-22-4 | mg/kg | 0.022 | JQ | 0.03 | JQ | 0.019 | JQ | 0.04 | JQ | 0.046 | JQ | 0.042 | JQ |
| Sodium | 7440-23-5 | mg/kg | 180 | | 200 | | 200 | | 200 | | 210 | | 130 | JQ |
| Thallium | 7440-28-0 | mg/kg | 0.41 | UB | 0.4 | UB | 0.3 | UB | 0.45 | UB | 0.44 | UB | 0.4 | UB |
| Vanadium | 7440-62-2 | mg/kg | 77 | JH | 71 | JH | 84 | JH | 77 | JH | 84 | JH | 86 | JH |
| Zinc | 7440-66-6 | mg/kg | 260 | | 160 | | 180 | | 170 | | 200 | | 86 | |

Notes:

Bold results = Result exceeds one or more of the analyte background concentrations.

dup = duplicate sample

mg/kg = milligrams per kilograms.

Qualifiers:

J= Estimated value; the following modifiers may be appended to the "J" qualifier to indicate bias in results:

H= High bias.

K= Unknown bias.

Q= The reported concentration is less than the sample quantitation limit for the specific analyte.

U= The analyte was not detected. The reported value is the sample quantitation limit.

B= Modifier appended to "U" qualifier. Presence of analyte may be attributable to blank contamination. Result is not detected.

FIGURES

Path: C:\Users\grubba\Desktop\GIS\Hedges Creek\MXD\Figure 2 - Site Layout - Aerial.mxd



Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
Projection: Mercator Auxiliary Sphere
Datum: WGS 1984

Source:
Background: ESRI World Imagery Clarity (2021)
Site Boundary: Georeferenced ESRI World Imagery

0 330 660 Feet



Prepared for:
USEPA - Region 10



TO No./Subtask No.:
68HE0720F0147-06

Prepared By:
Weston Solutions, Inc.
START V
1011 SW Klickitat Way
Suite 212
Seattle, WA 98134



FIGURE 2
SITE FEATURES AND
SAMPLE LOCATIONS
HEDGES CREEK COPPER SOLUTION
TUALATIN, OREGON

Date: 7/26/2021

ATTACHMENT A
PHOTOGRAPHIC DOCUMENTATION

| | | |
|--|---|---|
| Project Name: Hedges Creek Copper Solution Release | Site Location: Tualatin, Oregon | Project No. 20510.012.001.0049.00 |
|--|---|---|

| | |
|---|----------------------------|
| Photo No. 1 | Date: 06/30/2021 |
| Photo Coordinates | |
| Lat | NA |
| Long | NA |
| Direction Photo Taken: Object | |
| Description: CuSol-5 concentrate used as part of wood treatment solution at residential property. | |



| | |
|---|----------------------------|
| Photo No. 2 | Date: 07/01/2021 |
| Photo Coordinates | |
| Lat | 45.363925 |
| Long | -122.782272 |
| Direction Photo Taken: Downslope and southeast | |
| Description: Slope along residential property that leads to Hedges Creek. | |



| | | |
|--|---|---|
| Project Name: Hedges Creek Copper Solution Release | Site Location: Tualatin, Oregon | Project No. 20510.012.001.0049.00 |
|--|---|---|

| | |
|---|----------------------------|
| Photo No. 3 | Date: 07/01/2021 |
| Photo Coordinates | |
| Lat | 45.362519 |
| Long | -122.777581 |
| Direction Photo Taken: Upslope and northwest | |
| Description: Slope along residential property that leads to Hedges Creek and location of soil sample SS-01. | |



| | |
|--|----------------------------|
| Photo No. 4 | Date: 06/30/2021 |
| Photo Coordinates | |
| Lat | 45.364022 |
| Long | -122.783347 |
| Direction Photo Taken: East | |
| Description: CuSol-5 solution impacted surface water shortly after release into Hedges Creek on June 30, 2021. | |



| | | |
|--|---|---|
| Project Name: Hedges Creek Copper Solution Release | Site Location: Tualatin, Oregon | Project No. 20510.012.001.0049.00 |
|--|---|---|

| | |
|---|----------------------------|
| Photo No. 5 | Date: 06/30/2021 |
| Photo Coordinates | |
| Lat | 45.364544 |
| Long | -122.783225 |
| Direction Photo Taken: East | |
| Description: Area of Hedges Creek downstream of dam area. | |



| | |
|--|----------------------------|
| Photo No. 6 | Date: 07/01/2021 |
| Photo Coordinates | |
| Lat | 45.364086 |
| Long | -122.783042 |
| Direction Photo Taken: West | |
| Description: Dam area in Hedges Creek one day after release. | |



| | | |
|--|---|---|
| Project Name: Hedges Creek Copper Solution Release | Site Location: Tualatin, Oregon | Project No. 20510.012.001.0049.00 |
|--|---|---|

| | |
|---|----------------------------|
| Photo No. 7 | Date: 07/01/2021 |
| Photo Coordinates | |
| Lat | 45.364117 |
| Long | -122.783456 |
| Direction Photo Taken: West | |
| Description: EPA and START complete Site walk with DEQ, ODA and US Ecology (spill response contractor). | |



| | |
|---|----------------------------|
| Photo No. 8 | Date: 07/01/2021 |
| Photo Coordinates | |
| Lat | 45.365667 |
| Long | -122.786675 |
| Direction Photo Taken: West | |
| Description: START personnel complete surface water and sediment sampling near surface water collection point. Plugged culvert shown in foreground. | |



| | | |
|--|---|---|
| Project Name: Hedges Creek Copper Solution Release | Site Location: Tualatin, Oregon | Project No. 20510.012.001.0049.00 |
|--|---|---|

| | |
|--|----------------------------|
| Photo No. 9 | Date: 07/01/2021 |
| Photo Coordinates | |
| Lat | 45.365678 |
| Long | -122.786667 |
| Direction Photo Taken: South | |
| Description: Pump system used to collect surface water into frac tanks up slope from collection point. | |



| | |
|---|----------------------------|
| Photo No. 10 | Date: 07/01/2021 |
| Photo Coordinates | |
| Lat | 45.365925 |
| Long | -122.786644 |
| Direction Photo Taken: Object | |
| Description: START personnel complete frac tank water sampling. | |



| | | |
|--|---|---|
| Project Name: Hedges Creek Copper Solution Release | Site Location: Tualatin, Oregon | Project No. 20510.012.001.0049.00 |
|--|---|---|

| | |
|---|----------------------------|
| Photo No. 11 | Date: 06/30/2021 |
| Photo Coordinates | |
| Lat | NA |
| Long | NA |
| Direction Photo Taken: Ground | |
| Description: Catch basin impacted by product release. | |



| | |
|--|----------------------------|
| Photo No. 12 | Date: 06/30/2021 |
| Photo Coordinates | |
| Lat | NA |
| Long | NA |
| Direction Photo Taken: Down, into catch basin | |
| Description: Bottom of catch basin and orange colored water impacted by product release. | |



ATTACHMENT B
LABORATORY ANALYTICAL RESULTS

DATA QUALITY ASSURANCE REVIEW

SITE NAME Hedges Creek Copper Solution Release

TDD NUMBER

SDG NUMBER

580-104201-1

Weston Solutions, Inc. (WESTON®) has completed a QA review for Work Order Number 20510.012.001.0049.00; SDG No. 580-104201-1; Hedges Creek Copper Solution Release. Twelve samples were analyzed for Target Analyte List (TAL) metals by Eurofins TestAmerica Laboratories, Inc. Sample numbers are listed below.

SAMPLE NUMBERS

SE-BG-D

SS-01

SW-02

SW-BG-U

This data package was validated to determine if Quality Control (QC) specifications were achieved, following *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (January, 2017), *USEPA National Functional Guidelines for Inorganic Superfund Data Review* (January, 2017), *USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review* (April, 2016), *Quality Assurance/Quality Control Guidance for Removal Activities* (September, 2011), and/or the Regional Protocol for Holding Times, Blanks, and VOA Preservation (April 13, 1989). All samples identified above were validated according to Stage 2B protocol and selected analytes from each method analyzed were validated according to Stage 4 protocol. Specific data qualifications are listed in the following discussion.

REVIEWER Gloria J. Switalski

DATE July 30, 2021

Data Qualifiers

Data Qualifier Definitions were supplied by the Office of Solid Waste and Emergency Response (September 1989) and are included in the Functional Guidelines. Data qualifiers may be combined (UJ, QJ) with the corresponding combination of meanings. Additional qualifiers may be added to provide additional, more specific information (JL, UB, QJK), modifying the meaning of the primary qualifier. Additional qualifiers utilized by WESTON are H, L, K, B, and Q.

- U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation or detection limit, which has been adjusted for sample weight/sample volume, extraction volume, percent solids, sample dilution or other analysis specific parameters.

An additional qualifier, “B”, may be appended to indicate that while the analyte was detected in the sample, the presence of the analyte may be attributable to blank contamination and the analyte is therefore considered undetected with the sample detection or quantitation limit for the analyte being elevated.

- J - The analyte was analyzed for, but the associated numerical value may not be consistent with the amount actually present in the environmental sample or may not be consistent with the sample detection or quantitation limit. The value is an estimated quantity. The data should be seriously considered for decision-making and are usable for many purposes.

An additional qualifier will be appended to the “J” qualifier that indicates the bias in the reported results:

L Low bias

H High bias

K Unknown bias

Q The reported concentration is less than the sample quantitation limit for the specific analyte in the sample.

The L and H qualifier will only be employed when a single qualification is required. When more than one quality control parameter affects the analytical result and a conflict results in assigning a bias, the result will be flagged JK.

- R - Quality Control indicates that data are unusable for all purposes. The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Resampling and reanalysis are necessary for verification to confirm or deny the presence of an analyte.
- N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a “tentative identification.”

Validation Level

Samples SE-BG-U, SE-BG-D, SE-01, SE-03, SS-01, SW-02, SW-03, SW-BG-D, and SW-BG-U were validated according to Stage 2B protocol. Samples SE-02 and SW-FR were validated according to Stage 4 protocol.

METALS DATA EVALUATION

1. Analytical Method:

Samples were prepared and analyzed for ICP metals using the procedures specified in **SW-846 Method 6020B**. Aqueous samples had dissolved metals checked on the chain-of-custody however, samples were field preserved with nitric acid and therefore could not be filtered for dissolved metals.

2. Holding Times:

The samples were received within the recommended $\leq 6^{\circ}\text{C}$ NFG limit. All samples met established holding time criteria of 180 days for ICP metals. No qualifications are placed on the data.

3. Initial Calibration:

ICP metals initial calibration included a blank and five standards. Initial calibration verification results fell within the control limits of 90% to 110% of the true values for ICP metals. No qualifications are placed on the data.

4. Continuing Calibration:

All ICP metals results fell within the control limits of 90% to 110% of the true value. No qualifications are placed on the data.

5. CRDL Standard:

All results for the CRDL standard were within the control limits of 70% to 130% of the true values or the sample results were greater than the CRDL action level. No qualifications are placed on the data.

6. Blanks:

A. Laboratory Blanks:

A method blank was prepared at the required frequency of every time samples were prepared/digested for each matrix or every 20 samples whichever is greater. Target analytes were detected in some calibration blanks and/or method blanks at concentrations that warrant blank action. Sample concentrations less than reporting limit (RL) are flagged UB (not detected, detection limit raised due to possible blank contamination). Details are noted below:

| INSTRUMENT ID DATE/TIME | ANALYTE/ BLANK ID | CONC | AFFECTED SAMPLES | QUALIFIER FLAG |
|----------------------------|--------------------------------|-------------------------|------------------|---|
| TAC110 7/2/2021@16:18 | Zinc/MB 580- 360879/10-A | 0.00493 J mg/L | All Aqueous | Remove laboratory "B" flag; 580-104201-7, -9, -10, -12 UB@RL; 580-103201-8, -11 |
| TAC110 7/2/2021@14:47 | Thallium/CCB 580- 360922/14 | 0.157 J $\mu\text{g/L}$ | All Solids | UB@RL; All Solids |

MB=Method Blank; CCB=Continuing Calibration Blank

B. Field Blanks:

No field blank samples were submitted with this analytical package. No qualifications are placed on the data.

7. ICP Interference Check:

All results for the interference check sample were within the control limits of 80% to 120% of the true values. No qualifications are placed on the data.

8. Laboratory Control Sample (LCS):

The laboratory analyzed LCS and recoveries were within the control limits provided. No qualifications are placed on the data.

9. Duplicate Sample Analysis:

A. Laboratory Duplicate Analysis:

Sample SE-BG-U underwent matrix spike/matrix spike duplicate (MS/MSD) and laboratory duplicate analyses for ICP metals for the solid matrix. Sample SW-BG-U underwent MS/MSD and laboratory duplicate analyses for ICP metals for the aqueous matrix. QC criteria are that the relative percent difference (RPD) values for the duplicate sample analysis are less than 20% for aqueous samples and less than 35% for solid/waste samples. All QC criteria were met. No qualifications are placed on the data.

B. Field Duplicate Analysis:

The following sample pair was submitted as field duplicates for the solid matrix: SE-02/SE-03. The following sample pair was submitted as field duplicates for the aqueous matrix: SW-02/SW-03. QC criteria are that the RPD values for the field duplicate sample analysis be less than 30% for aqueous samples and less than 50% for solid samples for concentrations greater than five times the RDL. For sample concentrations less than five times the RDL, the QC criteria are that the absolute difference between the samples is less than two times the RDL for aqueous samples or less than 3.5 times the RDL for the solid matrix. All QC criteria were met with the following exceptions:

| FIELD DUPLICATE SAMPLE PAIR | ANALYTE | MATRIX | RPD | AFFECTED SAMPLES | QUALIFIER FLAG |
|--------------------------------|-----------|---------|------|------------------|-------------------|
| SE-02/SW-03 | Barium | Aqueous | 66.7 | SE-02/SW-03 | JK |
| | Iron | | 81.2 | | JK |
| | Manganese | | 60.5 | | JK |
| | Zinc | | 57.4 | | JK |
| | Aluminum | | 91.8 | | JK |

10. Spiked Sample Analysis:

Sample SE-BG-U underwent MS/MSD analyses for ICP metals for the solid matrix. Sample SW-BG-U underwent MS/MSD analyses for ICP metals for the aqueous matrix. The spike recoveries for the following analytes were outside of the 75%-125% QC recovery limits for analytes whose sample concentration did not exceed the spike concentration by a factor of 4 times or more:

| ANALYTE | MATRIX | %R/%R | AFFECTED SAMPLES | QUALIFIER FLAG |
|-----------|--------|--------|------------------|----------------|
| Barium | Solid | OK/127 | All Solids | JH |
| Copper | | OK/128 | | JH |
| Magnesium | | OK/139 | | JH |
| Vanadium | | OK/126 | | JH |
| Calcium | | OK/142 | | JH |

It should be noted that the “%Rec” and “RPD” for calcium, magnesium, potassium, and sodium in the MS/MSD of aqueous sample SW-BG-U were reported as “NC” by the laboratory since the concentrations present in the spiking solution were less than the RL and therefore were not calculated.

The post digestion spike recoveries were acceptable indicating a possible digestion problem. No further qualifications are placed on the data. It should be noted that some analyte results “SSR” on the Form 5B-IN are reported as “ND” but a “%R” is listed. This is because the result for the affected analyte is less than the RL and is reported as ND but the %R could still be calculated since the result was greater than the method detection limit (MDL).

11. ICP Serial Dilution:

Sample SE-BG-U underwent serial dilution analyses for ICP metals for the solid matrix. Sample SW-BG-U underwent serial dilution analyses for ICP metals for the aqueous matrix serial dilution. The percent difference (%D) values for serial dilution analysis were within the QC limits of 10% for all analytes whose concentrations were greater than 50 times their MDL. No qualifications are placed on the data.

12. Sample Quantitation and Reporting Limits:

Concentrations of all analytes validated according to Stage 4 protocol were correctly calculated.

Reported concentrations less than the RL qualified “J” by the laboratory are qualified “JQ” to indicate that the result is less than the RL but greater than the MDL.

All analytes in all solid samples were analyzed at a 10-fold dilution. All analytes in all aqueous samples were analyzed at a 5-fold dilution. RL for these analytes in these samples are elevated as a result of the dilutions performed.

13. Laboratory Contact:

The laboratory was contacted on July 29, 2021 regarding a difference between the field ID listed on the chain-of-custody and that used by the laboratory, why four analytes in the MS/MSD were reported as NC, and why the aqueous Form 5B-IN has ND listed for the SSR for four analytes. An acceptable response was received on July 30, 2021.

14. Overall Assessment:

The zinc result in two aqueous samples was qualified due to method blank contamination.

The thallium result in all solid samples was qualified due to continuing calibration blank action.

Barium, iron, manganese, zinc, and aluminum results in the aqueous field duplicate pair were estimated due to poor precision.

Barium, copper, magnesium, vanadium, and calcium results in all solid samples were estimated due to high MSD recoveries.

Reported concentrations less than the RL qualified “J” by the laboratory were qualified “JQ” to indicate that the result is less than the RL but greater than the MDL.

The analytical data is acceptable for use with the qualifications listed above.

Client Sample Results

Client: Weston Solutions, Inc.

Job ID: 580-104201-1

Project/Site: START R10-Tualatin Cu Solution Spill

Client Sample ID: SE-BG-U

Lab Sample ID: 580-104201-1

Date Collected: 07/01/21 14:48

Matrix: Solid

Date Received: 07/02/21 07:55

Percent Solids: 63.8

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.022 | JQ | 0.20 | 0.020 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Aluminum | 11000 | | 31 | 6.7 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Antimony | 0.15 | JQ | 0.51 | 0.069 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Arsenic | 4.0 | | 0.51 | 0.10 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Barium | 120 | JH | 1.0 | 0.23 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Beryllium | 0.50 | | 0.20 | 0.049 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Cadmium | 0.099 | JQ | 0.81 | 0.078 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Calcium | 4000 | JH | 100 | 6.3 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Chromium | 20 | | 1.0 | 0.064 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Cobalt | 11 | | 0.20 | 0.010 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Copper | 16 | JH | 1.0 | 0.22 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Iron | 30000 | | 41 | 12 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Lead | 6.7 | | 0.51 | 0.049 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Magnesium | 3000 | JH | 100 | 2.7 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Manganese | 350 | | 1.5 | 0.46 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Nickel | 13 | | 0.51 | 0.20 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Potassium | 680 | | 100 | 18 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Selenium | 2.5 | | 1.5 | 0.29 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Sodium | 180 | | 150 | 53 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Thallium | 0.4108 | | 0.41 | 0.056 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Vanadium | 77 | JH | 2.0 | 0.28 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Zinc | 260 | | 5.6 | 1.6 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:06 | 10 |

Client Sample ID: SE-02

Lab Sample ID: 580-104201-2

Date Collected: 07/01/21 15:30

Matrix: Solid

Date Received: 07/02/21 07:55

Percent Solids: 57.3

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.040 | JQ | 0.23 | 0.023 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Aluminum | 13000 | | 34 | 7.4 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Antimony | 0.35 | JQ | 0.56 | 0.077 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Arsenic | 3.6 | | 0.56 | 0.11 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Barium | 140 | JH | 1.1 | 0.26 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Beryllium | 0.51 | | 0.23 | 0.054 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Cadmium | 0.15 | JQ | 0.90 | 0.087 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Calcium | 3800 | JH | 110 | 7.0 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Chromium | 24 | | 1.1 | 0.071 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Cobalt | 10 | | 0.23 | 0.011 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Copper | 24 | JH | 1.1 | 0.25 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Iron | 25000 | | 45 | 13 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Lead | 9.7 | | 0.56 | 0.054 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Magnesium | 2900 | JH | 110 | 3.0 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Manganese | 240 | | 1.7 | 0.51 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Nickel | 13 | | 0.56 | 0.22 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Potassium | 840 | | 110 | 20 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Selenium | 3.1 | | 1.7 | 0.32 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Sodium | 200 | | 170 | 59 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Thallium | 0.4508 | | 0.45 | 0.062 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Vanadium | 77 | JH | 2.3 | 0.31 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |

Eurofins FGS, Seattle

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-02

Date Collected: 07/01/21 15:30

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-2

Matrix: Solid

Percent Solids: 57.3

Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Zinc | 170 | | 6.2 | 1.8 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:44 | 10 |

Client Sample ID: SE-BG-D

Date Collected: 07/01/21 16:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-3

Matrix: Solid

Percent Solids: 58.2

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|----------|--------------------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.030 | + JQ | 0.20 | 0.020 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Aluminum | 11000 | | 30 | 6.6 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Antimony | 0.26 | + JQ | 0.50 | 0.068 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Arsenic | 4.0 | | 0.50 | 0.10 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Barium | 120 | JH | 1.0 | 0.23 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Beryllium | 0.38 | | 0.20 | 0.048 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Cadmium | 0.12 | + JQ | 0.80 | 0.077 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Calcium | 3800 | JH | 100 | 6.2 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Chromium | 23 | | 1.0 | 0.063 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Cobalt | 11 | | 0.20 | 0.010 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Copper | 18 | JH | 1.0 | 0.22 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Iron | 24000 | | 40 | 12 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Lead | 7.9 | | 0.50 | 0.048 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Magnesium | 2700 | JH | 100 | 2.6 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Manganese | 410 | | 1.5 | 0.45 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Nickel | 12 | | 0.50 | 0.19 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Potassium | 550 | | 100 | 17 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Selenium | 3.0 | | 1.5 | 0.29 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Sodium | 200 | | 150 | 52 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Thallium | 0.40 JVB | 0.002 J | 0.40 | 0.055 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Vanadium | 71 | JH | 2.0 | 0.27 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Zinc | 160 | | 5.5 | 1.6 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:48 | 10 |

Client Sample ID: SE-01

Date Collected: 07/01/21 15:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-4

Matrix: Solid

Percent Solids: 69.4

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|--------|-------|---|----------------|----------------|---------|
| Silver | 0.019 | + JQ | 0.15 | 0.015 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Aluminum | 12000 | | 22 | 4.9 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Antimony | 0.16 | + JQ | 0.37 | 0.050 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Arsenic | 3.6 | | 0.37 | 0.074 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Barium | 140 | JH | 0.74 | 0.17 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Beryllium | 0.53 | | 0.15 | 0.035 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Cadmium | 0.081 | + JQ | 0.59 | 0.057 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Calcium | 3800 | JH | 74 | 4.6 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Chromium | 23 | | 0.74 | 0.046 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Cobalt | 12 | | 0.15 | 0.0074 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Copper | 12 | JH | 0.74 | 0.16 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Iron | 27000 | | 30 | 3.5 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Lead | 6.0 | | 0.37 | 0.035 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |

Eurofins FGS, Seattle

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-01

Date Collected: 07/01/21 15:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-4

Matrix: Solid

Percent Solids: 69.4

Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|---------------------|------|-------|-------|---|----------------|----------------|---------|
| Magnesium | 2900 | JH | 74 | 1.9 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Manganese | 370 | | 1.1 | 0.33 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Nickel | 14 | | 0.37 | 0.14 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Potassium | 600 | | 74 | 13 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Selenium | 2.6 | | 1.1 | 0.21 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Sodium | 200 | | 110 | 39 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Thallium | 0.30 UB | 0.070 JH | 0.30 | 0.041 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Vanadium | 84 | JH | 1.5 | 0.20 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Zinc | 180 | | 4.1 | 1.2 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:52 | 10 |

Client Sample ID: SE-03

Date Collected: 07/01/21 15:35

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-5

Matrix: Solid

Percent Solids: 54.8

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|--------------------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.046 | + JQ | 0.22 | 0.022 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Aluminum | 14000 | | 33 | 7.2 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Antimony | 0.37 | + JQ | 0.55 | 0.075 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Arsenic | 4.2 | | 0.55 | 0.11 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Barium | 150 | JH | 1.1 | 0.25 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Beryllium | 0.55 | | 0.22 | 0.053 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Cadmium | 0.19 | + JQ | 0.88 | 0.084 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Calcium | 4300 | JH | 110 | 6.8 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Chromium | 26 | | 1.1 | 0.069 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Cobalt | 13 | | 0.22 | 0.011 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Copper | 27 | JH | 1.1 | 0.24 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Iron | 25000 | | 44 | 13 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Lead | 11 | | 0.55 | 0.053 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Magnesium | 3200 | JH | 110 | 2.9 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Manganese | 250 | | 1.6 | 0.50 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Nickel | 15 | | 0.55 | 0.21 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Potassium | 930 | | 110 | 19 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Selenium | 3.8 | | 1.6 | 0.31 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Sodium | 210 | | 160 | 57 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Thallium | 0.44 UB | 0.12 JH | 0.44 | 0.060 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Vanadium | 84 | JH | 2.2 | 0.30 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Zinc | 200 | | 6.0 | 1.8 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:55 | 10 |

Client Sample ID: SS-01

Date Collected: 07/01/21 15:15

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-6

Matrix: Solid

Percent Solids: 91.5

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.042 | + JQ | 0.20 | 0.020 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Aluminum | 17000 | | 30 | 6.5 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Antimony | 0.27 | + JQ | 0.49 | 0.067 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Arsenic | 4.3 | | 0.49 | 0.099 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Barium | 180 | JH | 0.99 | 0.23 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |

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Eurofins FGS, Seattle

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SS-01

Date Collected: 07/01/21 15:15

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-6

Matrix: Solid

Percent Solids: 91.5

Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|-----------|------|--------|-------|---|----------------|----------------|---------|
| Beryllium | 0.57 | | 0.20 | 0.047 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Cadmium | 0.11 | JH | 0.79 | 0.076 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Calcium | 4800 | JH | 99 | 6.2 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Chromium | 20 | | 0.99 | 0.062 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Cobalt | 15 | | 0.20 | 0.0099 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Copper | 22 | JH | 0.99 | 0.22 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Iron | 30000 | | 40 | 11 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Lead | 13 | | 0.49 | 0.047 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Magnesium | 3600 | JH | 99 | 2.6 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Manganese | 860 | | 1.5 | 0.45 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Nickel | 17 | | 0.49 | 0.19 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Potassium | 1700 | | 99 | 17 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Selenium | 2.9 | | 1.5 | 0.28 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Sodium | 130 | JH | 150 | 52 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Thallium | 0.40 UB | JH | 0.40 | 0.054 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Vanadium | 86 | JH | 2.0 | 0.27 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Zinc | 86 | | 5.4 | 1.6 | mg/Kg | * | 07/02/21 11:51 | 07/02/21 15:59 | 10 |

Client Sample ID: SW-01

Date Collected: 07/01/21 15:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-7

Matrix: Water

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | 0.0034 | JH | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Barium | 0.12 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Chromium | 0.0061 | | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Cobalt | 0.0043 | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Copper | 0.030 | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Iron | 13 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Lead | 0.0017 | JH | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Manganese | 0.71 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Nickel | 0.0048 | JH | 0.015 | 0.00063 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Vanadium | 0.021 | | 0.020 | 0.0023 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Zinc | 0.26 | JH | 0.035 | 0.0046 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Aluminum | 2.3 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Calcium | 21 | JH | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |

Client Sample Results

Client: Weston Solutions, Inc.

Job ID: 580-104201-1

Project/Site: START R10-Tualatin Cu Solution Spill

Client Sample ID: SW-FR

Lab Sample ID: 580-104201-8

Date Collected: 07/01/21 16:17

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|----------|---------------------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | 0.0015 | + JQ | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Barium | 0.038 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Chromium | 0.0015 | + JQ | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Cobalt | 0.0011 | + JQ | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Copper | 0.0047 | + JQ | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Iron | 3.2 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Lead | 0.00059 | + JQ | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Manganese | 0.21 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Nickel | 0.0054 | + JQ | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Vanadium | 0.0055 | + JQ | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Zinc | 0.035 UB | 0.032 JB | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Aluminum | 0.49 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Calcium | 18 | + JQ | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |

Client Sample ID: SW-02

Lab Sample ID: 580-104201-9

Date Collected: 07/01/21 15:30

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | 0.0014 | + JQ | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Barium | 0.060 | JK | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Chromium | 0.0038 | + JQ | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Cobalt | 0.0019 | + JQ | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Copper | 0.0036 | + JQ | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Iron | 4.1 | JK | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Lead | 0.0014 | + JQ | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Manganese | 0.15 | JK | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Nickel | 0.0027 | + JQ | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Vanadium | 0.014 | + JQ | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Zinc | 0.072 | JK | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Aluminum | 2.3 | JK | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |

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Client Sample Results

Client: Weston Solutions, Inc.

Job ID: 580-104201-1

Project/Site: START R10-Tualatin Cu Solution Spill

Client Sample ID: SW-02

Lab Sample ID: 580-104201-9

Date Collected: 07/01/21 15:30

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|----|-----|------|---|----------------|----------------|---------|
| Calcium | 19 | JK | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |

Client Sample ID: SW-03

Lab Sample ID: 580-104201-10

Date Collected: 07/01/21 15:35

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | 0.0031 | JK | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Barium | 0.12 | JK | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Chromium | 0.0097 | | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Cobalt | 0.0046 | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Copper | 0.015 | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Iron | 9.7 | JK | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Lead | 0.0044 | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Manganese | 0.28 | JK | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Nickel | 0.0059 | JK | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Vanadium | 0.031 | | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Zinc | 0.13 | JK | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Aluminum | 6.2 | JK | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Calcium | 23 | JK | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |

Client Sample ID: SW-BG-D

Lab Sample ID: 580-104201-11

Date Collected: 07/01/21 16:00

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Barium | 0.037 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Chromium | 0.0015 | JK | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Cobalt | 0.00094 | JK | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Copper | ND | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Iron | 1.6 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Lead | ND | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Manganese | 0.13 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Nickel | 0.0013 | JK | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |

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Eurofins FGS, Seattle

Client Sample Results

Client: Weston Solutions, Inc.

Job ID: 580-104201-1

Project/Site: START R10-Tualatin Cu Solution Spill

Client Sample ID: SW-BG-D

Lab Sample ID: 580-104201-11

Date Collected: 07/01/21 16:00

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|----------|---------------------|--------|---------|------|---|----------------|----------------|---------|
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Vanadium | 0.0054 | + JQ | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Zinc | 0.035 UB | 0.021 JB | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Aluminum | 0.49 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Calcium | 18 | + JQ | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |

Client Sample ID: SW-BG-U

Lab Sample ID: 580-104201-12

Date Collected: 07/01/21 14:48

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|---------------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Barium | 0.044 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Chromium | 0.0013 | + JQ | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Cobalt | 0.0010 | + JQ | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Copper | ND | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Iron | 1.7 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Lead | 0.00028 | + JQ | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Manganese | 0.12 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Nickel | 0.0014 | + JQ | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Vanadium | 0.0048 | + JQ | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Zinc | 0.037 | JB | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Aluminum | 0.69 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Calcium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |

as 7/10/21

ANALYTICAL REPORT

Eurofins FGS, Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-104201-1

Client Project/Site: START R10-Tualatin Cu Solution Spill
Revision: 1

For:

Weston Solutions, Inc.
1440 Broadway
Suite 910
Oakland, California 94621

Attn: Mr. Alex Grubb



Authorized for release by:
7/29/2021 3:57:30 PM

Nathan Lewis, Project Manager I
(253)922-2310
Nathan.Lewis@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Job ID: 580-104201-1

Laboratory: Eurofins FGS, Seattle

Narrative

CASE NARRATIVE
Client: Weston Solutions, Inc.
Project: START R10-Tualatin Cu Solution Spill
Report Number: 580-104201-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This report has been revised to correct the sample ID for sample SE-BDG-D (580-104201-3).

RECEIPT

The samples were received on 07/02/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.4 C.

Dissolved metals analysis could not be completed as samples were sent in preserved with nitric and could not be filtered by the lab. Client was contacted and canceled the dissolved metals analysis.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

METALS (ICPMS)

Samples SE-BG-U (580-104201-1), SE-02 (580-104201-2), SE-BG-D (580-104201-3), SE-01 (580-104201-4), SE-03 (580-104201-5) and SS-01 (580-104201-6) were analyzed for metals (ICPMS) in accordance with 6020B. The samples were prepared and analyzed on 07/02/2021.

Iron, Manganese and Zinc failed the recovery criteria low for the MS of sample SE-BG-UMS (580-104201-1) in batch 580-360922. Aluminum failed the recovery criteria high. For the MSD of sample SE-BG-UMSD (580-104201-1) in batch 580-360922, Iron failed the recovery criteria low. Several analytes failed the recovery criteria high. Also, several analytes exceeded the RPD limit.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Arsenic and Silver exceeded the RPD limit for the duplicate of sample SE-BG-UDU (580-104201-1).

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

METALS (ICPMS)

Samples SW-01 (580-104201-7), SW-FR (580-104201-8), SW-02 (580-104201-9), SW-03 (580-104201-10), SW-BG-D (580-104201-11) and SW-BG-U (580-104201-12) were analyzed for metals (ICPMS) in accordance with 6020B. The samples were prepared and analyzed on 07/02/2021.

Case Narrative

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Job ID: 580-104201-1 (Continued)

Laboratory: Eurofins FGS, Seattle (Continued)

Zinc was detected in method blank MB 580-360879/10-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

PERCENT SOLIDS

Samples SE-BG-U (580-104201-1), SE-02 (580-104201-2), SE-BG-D (580-104201-3), SE-01 (580-104201-4), SE-03 (580-104201-5) and SS-01 (580-104201-6) were analyzed for percent solids in accordance with ASTM D2216. The samples were analyzed on 07/02/2021.

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

Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Qualifiers

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| B | Compound was found in the blank and sample. |
| F1 | MS and/or MSD recovery exceeds control limits. |
| F2 | MS/MSD RPD exceeds control limits |
| F3 | Duplicate RPD exceeds the control limit |
| F5 | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-BG-U

Lab Sample ID: 580-104201-1

Date Collected: 07/01/21 14:48

Matrix: Solid

Date Received: 07/02/21 07:55

Percent Solids: 63.8

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.022 | J F2 | 0.20 | 0.020 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Aluminum | 11000 | | 31 | 6.7 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Antimony | 0.15 | J F2 | 0.51 | 0.069 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Arsenic | 4.0 | F2 | 0.51 | 0.10 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Barium | 120 | F1 | 1.0 | 0.23 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Beryllium | 0.50 | F2 | 0.20 | 0.049 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Cadmium | 0.099 | J F2 | 0.81 | 0.078 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Calcium | 4000 | F1 | 100 | 6.3 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Chromium | 20 | | 1.0 | 0.064 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Cobalt | 11 | F2 | 0.20 | 0.010 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Copper | 16 | F1 F2 | 1.0 | 0.22 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Iron | 30000 | | 41 | 12 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Lead | 6.7 | | 0.51 | 0.049 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Magnesium | 3000 | F1 | 100 | 2.7 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Manganese | 350 | F2 | 1.5 | 0.46 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Nickel | 13 | | 0.51 | 0.20 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Potassium | 680 | | 100 | 18 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Selenium | 2.5 | | 1.5 | 0.29 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Sodium | 180 | | 150 | 53 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Thallium | 0.083 | J | 0.41 | 0.056 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Vanadium | 77 | F1 F2 | 2.0 | 0.28 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |
| Zinc | 260 | | 5.6 | 1.6 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:06 | 10 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids | 63.8 | | 0.1 | 0.1 | % | | | 07/02/21 12:41 | 1 |
| Percent Moisture | 36.2 | | 0.1 | 0.1 | % | | | 07/02/21 12:41 | 1 |

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-02

Lab Sample ID: 580-104201-2

Date Collected: 07/01/21 15:30

Matrix: Solid

Date Received: 07/02/21 07:55

Percent Solids: 57.3

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.040 | J | 0.23 | 0.023 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Aluminum | 13000 | | 34 | 7.4 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Antimony | 0.35 | J | 0.56 | 0.077 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Arsenic | 3.6 | | 0.56 | 0.11 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Barium | 140 | | 1.1 | 0.26 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Beryllium | 0.51 | | 0.23 | 0.054 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Cadmium | 0.15 | J | 0.90 | 0.087 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Calcium | 3800 | | 110 | 7.0 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Chromium | 24 | | 1.1 | 0.071 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Cobalt | 10 | | 0.23 | 0.011 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Copper | 24 | | 1.1 | 0.25 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Iron | 25000 | | 45 | 13 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Lead | 9.7 | | 0.56 | 0.054 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Magnesium | 2900 | | 110 | 3.0 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Manganese | 240 | | 1.7 | 0.51 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Nickel | 13 | | 0.56 | 0.22 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Potassium | 840 | | 110 | 20 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Selenium | 3.1 | | 1.7 | 0.32 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Sodium | 200 | | 170 | 59 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Thallium | 0.12 | J | 0.45 | 0.062 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Vanadium | 77 | | 2.3 | 0.31 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |
| Zinc | 170 | | 6.2 | 1.8 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:44 | 10 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids | 57.3 | | 0.1 | 0.1 | % | | | 07/02/21 12:41 | 1 |
| Percent Moisture | 42.7 | | 0.1 | 0.1 | % | | | 07/02/21 12:41 | 1 |

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-BG-D

Lab Sample ID: 580-104201-3

Date Collected: 07/01/21 16:00

Matrix: Solid

Date Received: 07/02/21 07:55

Percent Solids: 58.2

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.030 | J | 0.20 | 0.020 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Aluminum | 11000 | | 30 | 6.6 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Antimony | 0.26 | J | 0.50 | 0.068 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Arsenic | 4.0 | | 0.50 | 0.10 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Barium | 120 | | 1.0 | 0.23 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Beryllium | 0.38 | | 0.20 | 0.048 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Cadmium | 0.12 | J | 0.80 | 0.077 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Calcium | 3800 | | 100 | 6.2 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Chromium | 23 | | 1.0 | 0.063 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Cobalt | 11 | | 0.20 | 0.010 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Copper | 18 | | 1.0 | 0.22 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Iron | 24000 | | 40 | 12 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Lead | 7.9 | | 0.50 | 0.048 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Magnesium | 2700 | | 100 | 2.6 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Manganese | 410 | | 1.5 | 0.45 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Nickel | 12 | | 0.50 | 0.19 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Potassium | 550 | | 100 | 17 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Selenium | 3.0 | | 1.5 | 0.29 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Sodium | 200 | | 150 | 52 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Thallium | 0.092 | J | 0.40 | 0.055 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Vanadium | 71 | | 2.0 | 0.27 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |
| Zinc | 160 | | 5.5 | 1.6 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:48 | 10 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids | 58.2 | | 0.1 | 0.1 | % | | | 07/02/21 12:41 | 1 |
| Percent Moisture | 41.8 | | 0.1 | 0.1 | % | | | 07/02/21 12:41 | 1 |

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-01

Lab Sample ID: 580-104201-4

Date Collected: 07/01/21 15:00

Matrix: Solid

Date Received: 07/02/21 07:55

Percent Solids: 69.4

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|--------|-------|---|----------------|----------------|---------|
| Silver | 0.019 | J | 0.15 | 0.015 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Aluminum | 12000 | | 22 | 4.9 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Antimony | 0.16 | J | 0.37 | 0.050 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Arsenic | 3.6 | | 0.37 | 0.074 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Barium | 140 | | 0.74 | 0.17 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Beryllium | 0.53 | | 0.15 | 0.035 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Cadmium | 0.081 | J | 0.59 | 0.057 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Calcium | 3800 | | 74 | 4.6 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Chromium | 23 | | 0.74 | 0.046 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Cobalt | 12 | | 0.15 | 0.0074 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Copper | 12 | | 0.74 | 0.16 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Iron | 27000 | | 30 | 8.5 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Lead | 6.0 | | 0.37 | 0.035 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Magnesium | 2900 | | 74 | 1.9 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Manganese | 370 | | 1.1 | 0.33 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Nickel | 14 | | 0.37 | 0.14 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Potassium | 600 | | 74 | 13 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Selenium | 2.6 | | 1.1 | 0.21 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Sodium | 200 | | 110 | 39 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Thallium | 0.076 | J | 0.30 | 0.041 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Vanadium | 84 | | 1.5 | 0.20 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |
| Zinc | 180 | | 4.1 | 1.2 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:52 | 10 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids | 69.4 | | 0.1 | 0.1 | % | | | 07/02/21 12:41 | 1 |
| Percent Moisture | 30.6 | | 0.1 | 0.1 | % | | | 07/02/21 12:41 | 1 |

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-03

Lab Sample ID: 580-104201-5

Date Collected: 07/01/21 15:35

Matrix: Solid

Date Received: 07/02/21 07:55

Percent Solids: 54.8

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver | 0.046 | J | 0.22 | 0.022 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Aluminum | 14000 | | 33 | 7.2 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Antimony | 0.37 | J | 0.55 | 0.075 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Arsenic | 4.2 | | 0.55 | 0.11 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Barium | 150 | | 1.1 | 0.25 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Beryllium | 0.55 | | 0.22 | 0.053 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Cadmium | 0.19 | J | 0.88 | 0.084 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Calcium | 4300 | | 110 | 6.8 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Chromium | 26 | | 1.1 | 0.069 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Cobalt | 13 | | 0.22 | 0.011 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Copper | 27 | | 1.1 | 0.24 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Iron | 25000 | | 44 | 13 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Lead | 11 | | 0.55 | 0.053 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Magnesium | 3200 | | 110 | 2.9 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Manganese | 250 | | 1.6 | 0.50 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Nickel | 15 | | 0.55 | 0.21 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Potassium | 930 | | 110 | 19 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Selenium | 3.8 | | 1.6 | 0.31 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Sodium | 210 | | 160 | 57 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Thallium | 0.12 | J | 0.44 | 0.060 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Vanadium | 84 | | 2.2 | 0.30 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |
| Zinc | 200 | | 6.0 | 1.8 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:55 | 10 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids | 54.8 | | 0.1 | 0.1 | % | | | 07/02/21 12:42 | 1 |
| Percent Moisture | 45.2 | | 0.1 | 0.1 | % | | | 07/02/21 12:42 | 1 |

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SS-01

Lab Sample ID: 580-104201-6

Date Collected: 07/01/21 15:15

Matrix: Solid

Date Received: 07/02/21 07:55

Percent Solids: 91.5

Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|------|--------|-------|---|----------------|----------------|---------|
| Silver | 0.042 | J | 0.20 | 0.020 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Aluminum | 17000 | | 30 | 6.5 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Antimony | 0.27 | J | 0.49 | 0.067 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Arsenic | 4.3 | | 0.49 | 0.099 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Barium | 180 | | 0.99 | 0.23 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Beryllium | 0.57 | | 0.20 | 0.047 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Cadmium | 0.11 | J | 0.79 | 0.076 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Calcium | 4800 | | 99 | 6.2 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Chromium | 20 | | 0.99 | 0.062 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Cobalt | 15 | | 0.20 | 0.0099 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Copper | 22 | | 0.99 | 0.22 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Iron | 30000 | | 40 | 11 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Lead | 13 | | 0.49 | 0.047 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Magnesium | 3600 | | 99 | 2.6 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Manganese | 860 | | 1.5 | 0.45 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Nickel | 17 | | 0.49 | 0.19 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Potassium | 1700 | | 99 | 17 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Selenium | 2.9 | | 1.5 | 0.28 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Sodium | 130 | J | 150 | 52 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Thallium | 0.14 | J | 0.40 | 0.054 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Vanadium | 86 | | 2.0 | 0.27 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |
| Zinc | 86 | | 5.4 | 1.6 | mg/Kg | ☆ | 07/02/21 11:51 | 07/02/21 15:59 | 10 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids | 91.5 | | 0.1 | 0.1 | % | | | 07/02/21 12:42 | 1 |
| Percent Moisture | 8.5 | | 0.1 | 0.1 | % | | | 07/02/21 12:42 | 1 |

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SW-01

Lab Sample ID: 580-104201-7

Date Collected: 07/01/21 15:00

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | 0.0034 | J | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Barium | 0.12 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Chromium | 0.0061 | | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Cobalt | 0.0043 | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Copper | 0.030 | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Iron | 13 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Lead | 0.0017 | J | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Manganese | 0.71 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Nickel | 0.0048 | J | 0.015 | 0.00063 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Vanadium | 0.021 | | 0.020 | 0.0023 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Zinc | 0.26 | B | 0.035 | 0.0046 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Aluminum | 2.3 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |
| Calcium | 21 | J | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 17:16 | 5 |

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SW-FR

Lab Sample ID: 580-104201-8

Date Collected: 07/01/21 16:17

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | 0.0015 | J | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Barium | 0.038 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Chromium | 0.0015 | J | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Cobalt | 0.0011 | J | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Copper | 0.0047 | J | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Iron | 3.2 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Lead | 0.00059 | J | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Manganese | 0.21 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Nickel | 0.0054 | J | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Vanadium | 0.0055 | J | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Zinc | 0.032 | J B | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Aluminum | 0.49 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |
| Calcium | 18 | J | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:12 | 5 |

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SW-02

Lab Sample ID: 580-104201-9

Date Collected: 07/01/21 15:30

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|---------------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | 0.0014 | J | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Barium | 0.060 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Chromium | 0.0038 | J | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Cobalt | 0.0019 | J | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Copper | 0.0036 | J | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Iron | 4.1 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Lead | 0.0014 | J | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Manganese | 0.15 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Nickel | 0.0027 | J | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Vanadium | 0.014 | J | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Zinc | 0.072 | B | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Aluminum | 2.3 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |
| Calcium | 19 | J | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:08 | 5 |

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SW-03

Lab Sample ID: 580-104201-10

Date Collected: 07/01/21 15:35

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | 0.0031 | J | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Barium | 0.12 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Chromium | 0.0097 | | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Cobalt | 0.0046 | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Copper | 0.015 | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Iron | 9.7 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Lead | 0.0044 | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Manganese | 0.28 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Nickel | 0.0059 | J | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Vanadium | 0.031 | | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Zinc | 0.13 | B | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Aluminum | 6.2 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |
| Calcium | 23 | J | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:19 | 5 |

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SW-BG-D

Lab Sample ID: 580-104201-11

Date Collected: 07/01/21 16:00

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|---------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Barium | 0.037 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Chromium | 0.0015 | J | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Cobalt | 0.00094 | J | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Copper | ND | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Iron | 1.6 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Lead | ND | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Manganese | 0.13 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Nickel | 0.0013 | J | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Vanadium | 0.0054 | J | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Zinc | 0.031 | J B | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Aluminum | 0.49 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |
| Calcium | 18 | J | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 17:04 | 5 |

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Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SW-BG-U

Lab Sample ID: 580-104201-12

Date Collected: 07/01/21 14:48

Matrix: Water

Date Received: 07/02/21 07:55

Method: 6020B - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------|----------------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Barium | 0.044 | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Chromium | 0.0013 | J | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Cobalt | 0.0010 | J | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Copper | ND | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Iron | 1.7 | | 0.50 | 0.067 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Lead | 0.00028 | J | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Manganese | 0.12 | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Nickel | 0.0014 | J | 0.015 | 0.00063 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Vanadium | 0.0048 | J | 0.020 | 0.0023 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Zinc | 0.037 | B | 0.035 | 0.0046 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Aluminum | 0.69 | | 0.20 | 0.029 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |
| Calcium | ND | | 50 | 15 | mg/L | | 07/02/21 11:28 | 07/02/21 16:22 | 5 |

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QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-360881/10-A

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Antimony | ND | | 0.50 | 0.068 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Arsenic | ND | | 0.50 | 0.10 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Barium | ND | | 1.0 | 0.23 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Beryllium | ND | | 0.20 | 0.048 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Cadmium | ND | | 0.80 | 0.077 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Chromium | ND | | 1.0 | 0.063 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Cobalt | ND | | 0.20 | 0.010 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Copper | ND | | 1.0 | 0.22 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Iron | ND | | 40 | 12 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Lead | ND | | 0.50 | 0.048 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Silver | ND | | 0.20 | 0.020 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Manganese | ND | | 1.5 | 0.45 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Nickel | ND | | 0.50 | 0.19 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Aluminum | ND | | 30 | 6.6 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Selenium | ND | | 1.5 | 0.29 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Magnesium | ND | | 100 | 2.6 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Potassium | ND | | 100 | 17 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Thallium | ND | | 0.40 | 0.055 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Sodium | ND | | 150 | 52 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Vanadium | ND | | 2.0 | 0.27 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Calcium | ND | | 100 | 6.2 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |
| Zinc | ND | | 5.5 | 1.6 | mg/Kg | | 07/02/21 11:51 | 07/02/21 14:54 | 10 |

Lab Sample ID: LCS 580-360881/11-A

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Antimony | 50.0 | 49.6 | | mg/Kg | | 99 | 80 - 120 |
| Arsenic | 50.0 | 50.6 | | mg/Kg | | 101 | 80 - 120 |
| Barium | 50.0 | 50.2 | | mg/Kg | | 100 | 80 - 120 |
| Beryllium | 50.0 | 50.5 | | mg/Kg | | 101 | 80 - 120 |
| Cadmium | 50.0 | 49.3 | | mg/Kg | | 99 | 80 - 120 |
| Chromium | 50.0 | 50.2 | | mg/Kg | | 100 | 80 - 120 |
| Cobalt | 50.0 | 50.9 | | mg/Kg | | 102 | 80 - 120 |
| Copper | 50.0 | 50.1 | | mg/Kg | | 100 | 80 - 120 |
| Iron | 1000 | 1020 | | mg/Kg | | 102 | 80 - 120 |
| Lead | 50.0 | 49.3 | | mg/Kg | | 99 | 80 - 120 |
| Silver | 50.0 | 49.6 | | mg/Kg | | 99 | 80 - 120 |
| Manganese | 50.0 | 49.8 | | mg/Kg | | 100 | 80 - 120 |
| Nickel | 50.0 | 50.2 | | mg/Kg | | 100 | 80 - 120 |
| Aluminum | 1000 | 989 | | mg/Kg | | 99 | 80 - 120 |
| Selenium | 50.0 | 50.6 | | mg/Kg | | 101 | 80 - 120 |
| Magnesium | 1000 | 1010 | | mg/Kg | | 101 | 80 - 120 |
| Potassium | 1000 | 1010 | | mg/Kg | | 101 | 80 - 120 |
| Thallium | 50.0 | 48.5 | | mg/Kg | | 97 | 80 - 120 |
| Sodium | 1000 | 1000 | | mg/Kg | | 100 | 80 - 120 |
| Vanadium | 50.0 | 50.7 | | mg/Kg | | 101 | 80 - 120 |
| Calcium | 1000 | 989 | | mg/Kg | | 99 | 80 - 120 |

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QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 580-360881/11-A

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Zinc | 50.0 | 48.3 | | mg/Kg | | 97 | 80 - 120 |

Lab Sample ID: LCSD 580-360881/12-A

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Antimony | 50.0 | 49.6 | | mg/Kg | | 99 | 80 - 120 | 0 | 20 |
| Arsenic | 50.0 | 50.8 | | mg/Kg | | 102 | 80 - 120 | 1 | 20 |
| Barium | 50.0 | 49.7 | | mg/Kg | | 99 | 80 - 120 | 1 | 20 |
| Beryllium | 50.0 | 50.9 | | mg/Kg | | 102 | 80 - 120 | 1 | 20 |
| Cadmium | 50.0 | 49.2 | | mg/Kg | | 98 | 80 - 120 | 0 | 20 |
| Chromium | 50.0 | 50.2 | | mg/Kg | | 100 | 80 - 120 | 0 | 20 |
| Cobalt | 50.0 | 50.6 | | mg/Kg | | 101 | 80 - 120 | 0 | 20 |
| Copper | 50.0 | 49.9 | | mg/Kg | | 100 | 80 - 120 | 0 | 20 |
| Iron | 1000 | 1020 | | mg/Kg | | 102 | 80 - 120 | 1 | 20 |
| Lead | 50.0 | 48.9 | | mg/Kg | | 98 | 80 - 120 | 1 | 20 |
| Silver | 50.0 | 49.9 | | mg/Kg | | 100 | 80 - 120 | 1 | 20 |
| Manganese | 50.0 | 49.8 | | mg/Kg | | 100 | 80 - 120 | 0 | 20 |
| Nickel | 50.0 | 50.1 | | mg/Kg | | 100 | 80 - 120 | 0 | 20 |
| Aluminum | 1000 | 989 | | mg/Kg | | 99 | 80 - 120 | 0 | 20 |
| Selenium | 50.0 | 49.7 | | mg/Kg | | 99 | 80 - 120 | 2 | 20 |
| Magnesium | 1000 | 1010 | | mg/Kg | | 101 | 80 - 120 | 0 | 20 |
| Potassium | 1000 | 1000 | | mg/Kg | | 100 | 80 - 120 | 1 | 20 |
| Thallium | 50.0 | 48.9 | | mg/Kg | | 98 | 80 - 120 | 1 | 20 |
| Sodium | 1000 | 1000 | | mg/Kg | | 100 | 80 - 120 | 0 | 20 |
| Vanadium | 50.0 | 50.4 | | mg/Kg | | 101 | 80 - 120 | 1 | 20 |
| Calcium | 1000 | 1020 | | mg/Kg | | 102 | 80 - 120 | 3 | 20 |
| Zinc | 50.0 | 49.3 | | mg/Kg | | 99 | 80 - 120 | 2 | 20 |

Lab Sample ID: 580-104201-1 MS

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: SE-BG-U

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Antimony | 0.15 | J F2 | 53.0 | 47.1 | | mg/Kg | ✱ | 89 | 80 - 120 |
| Arsenic | 4.0 | F2 | 53.0 | 55.5 | | mg/Kg | ✱ | 97 | 80 - 120 |
| Barium | 120 | F1 | 53.0 | 177 | | mg/Kg | ✱ | 109 | 80 - 120 |
| Beryllium | 0.50 | F2 | 53.0 | 55.8 | | mg/Kg | ✱ | 104 | 80 - 120 |
| Cadmium | 0.099 | J F2 | 53.0 | 53.0 | | mg/Kg | ✱ | 100 | 80 - 120 |
| Chromium | 20 | | 53.0 | 71.5 | | mg/Kg | ✱ | 96 | 80 - 120 |
| Cobalt | 11 | F2 | 53.0 | 63.9 | | mg/Kg | ✱ | 100 | 80 - 120 |
| Copper | 16 | F1 F2 | 53.0 | 69.5 | | mg/Kg | ✱ | 101 | 80 - 120 |
| Iron | 30000 | | 1060 | 25800 | 4 | mg/Kg | ✱ | -397 | 80 - 120 |
| Lead | 6.7 | | 53.0 | 57.9 | | mg/Kg | ✱ | 97 | 80 - 120 |
| Silver | 0.022 | J F2 | 53.0 | 54.6 | | mg/Kg | ✱ | 103 | 80 - 120 |
| Manganese | 350 | F2 | 53.0 | 358 | 4 | mg/Kg | ✱ | 21 | 80 - 120 |
| Nickel | 13 | | 53.0 | 65.9 | | mg/Kg | ✱ | 100 | 80 - 120 |
| Aluminum | 11000 | | 1060 | 12400 | 4 | mg/Kg | ✱ | 160 | 80 - 120 |

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QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-104201-1 MS

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: SE-BG-U

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Selenium | 2.5 | | 53.0 | 53.8 | | mg/Kg | ✱ | 97 | 80 - 120 |
| Magnesium | 3000 | F1 | 1060 | 4030 | | mg/Kg | ✱ | 93 | 80 - 120 |
| Potassium | 680 | | 1060 | 1740 | | mg/Kg | ✱ | 101 | 80 - 120 |
| Thallium | 0.083 | J | 53.0 | 51.6 | | mg/Kg | ✱ | 97 | 80 - 120 |
| Sodium | 180 | | 1060 | 1300 | | mg/Kg | ✱ | 106 | 80 - 120 |
| Vanadium | 77 | F1 F2 | 53.0 | 121 | | mg/Kg | ✱ | 84 | 80 - 120 |
| Calcium | 4000 | F1 | 1060 | 4810 | | mg/Kg | ✱ | 81 | 80 - 120 |
| Zinc | 260 | | 53.0 | 293 | 4 | mg/Kg | ✱ | 61 | 80 - 120 |

Lab Sample ID: 580-104201-1 MSD

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: SE-BG-U

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Antimony | 0.15 | J F2 | 58.8 | 59.2 | F2 | mg/Kg | ✱ | 100 | 80 - 120 | 23 | 20 |
| Arsenic | 4.0 | F2 | 58.8 | 69.4 | F2 | mg/Kg | ✱ | 111 | 80 - 120 | 22 | 20 |
| Barium | 120 | F1 | 58.8 | 194 | F1 | mg/Kg | ✱ | 127 | 80 - 120 | 9 | 20 |
| Beryllium | 0.50 | F2 | 58.8 | 68.7 | F2 | mg/Kg | ✱ | 116 | 80 - 120 | 21 | 20 |
| Cadmium | 0.099 | J F2 | 58.8 | 66.0 | F2 | mg/Kg | ✱ | 112 | 80 - 120 | 22 | 20 |
| Chromium | 20 | | 58.8 | 86.5 | | mg/Kg | ✱ | 112 | 80 - 120 | 19 | 20 |
| Cobalt | 11 | F2 | 58.8 | 79.2 | F2 | mg/Kg | ✱ | 117 | 80 - 120 | 21 | 20 |
| Copper | 16 | F1 F2 | 58.8 | 91.5 | F1 F2 | mg/Kg | ✱ | 128 | 80 - 120 | 27 | 20 |
| Iron | 30000 | | 1180 | 29800 | 4 | mg/Kg | ✱ | -14 | 80 - 120 | 15 | 20 |
| Lead | 6.7 | | 58.8 | 70.5 | | mg/Kg | ✱ | 108 | 80 - 120 | 20 | 20 |
| Silver | 0.022 | J F2 | 58.8 | 67.4 | F2 | mg/Kg | ✱ | 115 | 80 - 120 | 21 | 20 |
| Manganese | 350 | F2 | 58.8 | 474 | 4 F2 | mg/Kg | ✱ | 217 | 80 - 120 | 28 | 20 |
| Nickel | 13 | | 58.8 | 80.3 | | mg/Kg | ✱ | 115 | 80 - 120 | 20 | 20 |
| Aluminum | 11000 | | 1180 | 13400 | 4 | mg/Kg | ✱ | 227 | 80 - 120 | 8 | 20 |
| Selenium | 2.5 | | 58.8 | 65.4 | | mg/Kg | ✱ | 107 | 80 - 120 | 20 | 20 |
| Magnesium | 3000 | F1 | 1180 | 4680 | F1 | mg/Kg | ✱ | 139 | 80 - 120 | 15 | 20 |
| Potassium | 680 | | 1180 | 2040 | | mg/Kg | ✱ | 116 | 80 - 120 | 16 | 20 |
| Thallium | 0.083 | J | 58.8 | 63.0 | | mg/Kg | ✱ | 107 | 80 - 120 | 20 | 20 |
| Sodium | 180 | | 1180 | 1570 | | mg/Kg | ✱ | 118 | 80 - 120 | 18 | 20 |
| Vanadium | 77 | F1 F2 | 58.8 | 151 | F1 F2 | mg/Kg | ✱ | 126 | 80 - 120 | 22 | 20 |
| Calcium | 4000 | F1 | 1180 | 5630 | F1 | mg/Kg | ✱ | 142 | 80 - 120 | 16 | 20 |
| Zinc | 260 | | 58.8 | 342 | 4 | mg/Kg | ✱ | 138 | 80 - 120 | 15 | 20 |

Lab Sample ID: 580-104201-1 DU

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: SE-BG-U

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Antimony | 0.15 | J F2 | 0.188 | J | mg/Kg | ✱ | 20 | 20 |
| Arsenic | 4.0 | F2 | 3.02 | F3 | mg/Kg | ✱ | 27 | 20 |
| Barium | 120 | F1 | 107 | | mg/Kg | ✱ | 11 | 20 |
| Beryllium | 0.50 | F2 | 0.504 | | mg/Kg | ✱ | 1 | 20 |
| Cadmium | 0.099 | J F2 | 0.0920 | J | mg/Kg | ✱ | 7 | 20 |
| Chromium | 20 | | 18.3 | | mg/Kg | ✱ | 11 | 20 |
| Cobalt | 11 | F2 | 9.83 | | mg/Kg | ✱ | 8 | 20 |

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QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-104201-1 DU

Matrix: Solid

Analysis Batch: 360922

Client Sample ID: SE-BG-U

Prep Type: Total/NA

Prep Batch: 360881

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Copper | 16 | F1 F2 | 15.8 | | mg/Kg | ✱ | 2 | 20 |
| Iron | 30000 | | 25500 | | mg/Kg | ✱ | 16 | 20 |
| Lead | 6.7 | | 6.02 | | mg/Kg | ✱ | 11 | 20 |
| Silver | 0.022 | J F2 | 0.0282 | J F5 | mg/Kg | ✱ | 23 | 20 |
| Manganese | 350 | F2 | 323 | | mg/Kg | ✱ | 7 | 20 |
| Nickel | 13 | | 12.1 | | mg/Kg | ✱ | 5 | 20 |
| Aluminum | 11000 | | 10000 | | mg/Kg | ✱ | 7 | 20 |
| Selenium | 2.5 | | 2.76 | | mg/Kg | ✱ | 10 | 20 |
| Magnesium | 3000 | F1 | 2900 | | mg/Kg | ✱ | 5 | 20 |
| Potassium | 680 | | 644 | | mg/Kg | ✱ | 5 | 20 |
| Thallium | 0.083 | J | 0.0785 | J | mg/Kg | ✱ | 5 | 20 |
| Sodium | 180 | | 181 | | mg/Kg | ✱ | 0.5 | 20 |
| Vanadium | 77 | F1 F2 | 70.7 | | mg/Kg | ✱ | 9 | 20 |
| Calcium | 4000 | F1 | 3690 | | mg/Kg | ✱ | 7 | 20 |
| Zinc | 260 | | 230 | | mg/Kg | ✱ | 13 | 20 |

Lab Sample ID: MB 580-360879/10-A

Matrix: Water

Analysis Batch: 360924

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 360879

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|--------|---------|------|---|----------------|----------------|---------|
| Antimony | ND | | 0.0040 | 0.00063 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Arsenic | ND | | 0.0050 | 0.0010 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Barium | ND | | 0.0060 | 0.0011 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Beryllium | ND | | 0.0020 | 0.00055 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Cadmium | ND | | 0.0020 | 0.00019 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Chromium | ND | | 0.0040 | 0.00087 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Cobalt | ND | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Copper | ND | | 0.010 | 0.0030 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Iron | ND | | 0.50 | 0.067 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Lead | ND | | 0.0020 | 0.00020 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Silver | ND | | 0.0020 | 0.00013 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Manganese | ND | | 0.010 | 0.0023 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Nickel | ND | | 0.015 | 0.00063 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Aluminum | ND | | 0.20 | 0.029 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Selenium | ND | | 0.040 | 0.010 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Magnesium | ND | | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Potassium | ND | | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Thallium | ND | | 0.0050 | 0.00015 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Sodium | ND | | 50 | 50 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Vanadium | ND | | 0.020 | 0.0023 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Calcium | ND | | 50 | 15 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |
| Zinc | 0.00493 | J | 0.035 | 0.0046 | mg/L | | 07/02/21 11:29 | 07/02/21 16:18 | 5 |

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QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 580-360879/11-A

Matrix: Water

Analysis Batch: 360924

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 360879

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|------|---|------|--------------|
| Antimony | 1.00 | 0.970 | | mg/L | | 97 | 80 - 120 |
| Arsenic | 1.00 | 0.999 | | mg/L | | 100 | 80 - 120 |
| Barium | 1.00 | 0.984 | | mg/L | | 98 | 80 - 120 |
| Beryllium | 1.00 | 0.993 | | mg/L | | 99 | 80 - 120 |
| Cadmium | 1.00 | 0.966 | | mg/L | | 97 | 80 - 120 |
| Chromium | 1.00 | 0.986 | | mg/L | | 99 | 80 - 120 |
| Cobalt | 1.00 | 0.997 | | mg/L | | 100 | 80 - 120 |
| Copper | 1.00 | 0.980 | | mg/L | | 98 | 80 - 120 |
| Iron | 20.0 | 19.6 | | mg/L | | 98 | 80 - 120 |
| Lead | 1.00 | 0.958 | | mg/L | | 96 | 80 - 120 |
| Silver | 1.00 | 0.977 | | mg/L | | 98 | 80 - 120 |
| Manganese | 1.00 | 0.968 | | mg/L | | 97 | 80 - 120 |
| Nickel | 1.00 | 0.988 | | mg/L | | 99 | 80 - 120 |
| Aluminum | 20.0 | 19.4 | | mg/L | | 97 | 80 - 120 |
| Selenium | 1.00 | 0.992 | | mg/L | | 99 | 80 - 120 |
| Magnesium | 20.0 | ND | | mg/L | | 98 | 80 - 120 |
| Potassium | 20.0 | ND | | mg/L | | 99 | 80 - 120 |
| Thallium | 1.00 | 0.938 | | mg/L | | 94 | 80 - 120 |
| Sodium | 20.0 | ND | | mg/L | | 98 | 80 - 120 |
| Vanadium | 1.00 | 0.994 | | mg/L | | 99 | 80 - 120 |
| Calcium | 20.0 | ND | | mg/L | | 99 | 80 - 120 |
| Zinc | 1.00 | 0.937 | | mg/L | | 94 | 80 - 120 |

Lab Sample ID: LCSD 580-360879/12-A

Matrix: Water

Analysis Batch: 360924

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 360879

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Antimony | 1.00 | 0.965 | | mg/L | | 96 | 80 - 120 | 1 | 20 |
| Arsenic | 1.00 | 0.989 | | mg/L | | 99 | 80 - 120 | 1 | 20 |
| Barium | 1.00 | 0.977 | | mg/L | | 98 | 80 - 120 | 1 | 20 |
| Beryllium | 1.00 | 1.00 | | mg/L | | 100 | 80 - 120 | 1 | 20 |
| Cadmium | 1.00 | 0.963 | | mg/L | | 96 | 80 - 120 | 0 | 20 |
| Chromium | 1.00 | 0.979 | | mg/L | | 98 | 80 - 120 | 1 | 20 |
| Cobalt | 1.00 | 0.993 | | mg/L | | 99 | 80 - 120 | 0 | 20 |
| Copper | 1.00 | 0.974 | | mg/L | | 97 | 80 - 120 | 1 | 20 |
| Iron | 20.0 | 19.5 | | mg/L | | 98 | 80 - 120 | 0 | 20 |
| Lead | 1.00 | 0.961 | | mg/L | | 96 | 80 - 120 | 0 | 20 |
| Silver | 1.00 | 0.969 | | mg/L | | 97 | 80 - 120 | 1 | 20 |
| Manganese | 1.00 | 0.965 | | mg/L | | 96 | 80 - 120 | 0 | 20 |
| Nickel | 1.00 | 0.984 | | mg/L | | 98 | 80 - 120 | 0 | 20 |
| Aluminum | 20.0 | 19.3 | | mg/L | | 96 | 80 - 120 | 1 | 20 |
| Selenium | 1.00 | 0.978 | | mg/L | | 98 | 80 - 120 | 1 | 20 |
| Magnesium | 20.0 | ND | | mg/L | | 98 | 80 - 120 | 0 | 20 |
| Potassium | 20.0 | ND | | mg/L | | 98 | 80 - 120 | 1 | 20 |
| Thallium | 1.00 | 0.948 | | mg/L | | 95 | 80 - 120 | 1 | 20 |
| Sodium | 20.0 | ND | | mg/L | | 97 | 80 - 120 | 0 | 20 |
| Vanadium | 1.00 | 0.986 | | mg/L | | 99 | 80 - 120 | 1 | 20 |
| Calcium | 20.0 | ND | | mg/L | | 98 | 80 - 120 | 1 | 20 |

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QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 580-360879/12-A

Matrix: Water

Analysis Batch: 360924

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 360879

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Zinc | 1.00 | 0.936 | | mg/L | | 94 | 80 - 120 | 0 | 20 |

Lab Sample ID: 580-104201-12 MS

Matrix: Water

Analysis Batch: 360924

Client Sample ID: SW-BG-U

Prep Type: Total Recoverable

Prep Batch: 360879

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|-----|-----------|
| Antimony | ND | | 1.00 | 0.972 | | mg/L | | 97 | 80 - 120 | | |
| Arsenic | ND | | 1.00 | 1.07 | | mg/L | | 107 | 80 - 120 | | |
| Barium | 0.044 | | 1.00 | 1.09 | | mg/L | | 105 | 80 - 120 | | |
| Beryllium | ND | | 1.00 | 1.08 | | mg/L | | 108 | 80 - 120 | | |
| Cadmium | ND | | 1.00 | 1.03 | | mg/L | | 103 | 80 - 120 | | |
| Chromium | 0.0013 | J | 1.00 | 1.05 | | mg/L | | 105 | 80 - 120 | | |
| Cobalt | 0.0010 | J | 1.00 | 1.06 | | mg/L | | 106 | 80 - 120 | | |
| Copper | ND | | 1.00 | 1.05 | | mg/L | | 105 | 80 - 120 | | |
| Iron | 1.7 | | 20.0 | 22.5 | | mg/L | | 104 | 80 - 120 | | |
| Lead | 0.00028 | J | 1.00 | 1.02 | | mg/L | | 102 | 80 - 120 | | |
| Silver | ND | | 1.00 | 1.06 | | mg/L | | 106 | 80 - 120 | | |
| Manganese | 0.12 | | 1.00 | 1.15 | | mg/L | | 103 | 80 - 120 | | |
| Nickel | 0.0014 | J | 1.00 | 1.06 | | mg/L | | 105 | 80 - 120 | | |
| Aluminum | 0.69 | | 20.0 | 21.5 | | mg/L | | 104 | 80 - 120 | | |
| Selenium | ND | | 1.00 | 1.05 | | mg/L | | 105 | 80 - 120 | | |
| Magnesium | ND | | 20.0 | ND | | mg/L | | NC | 80 - 120 | | |
| Potassium | ND | | 20.0 | ND | | mg/L | | NC | 80 - 120 | | |
| Thallium | ND | | 1.00 | 1.02 | | mg/L | | 102 | 80 - 120 | | |
| Sodium | ND | | 20.0 | ND | | mg/L | | NC | 80 - 120 | | |
| Vanadium | 0.0048 | J | 1.00 | 1.06 | | mg/L | | 105 | 80 - 120 | | |
| Calcium | ND | | 20.0 | ND | | mg/L | | NC | 80 - 120 | | |
| Zinc | 0.037 | B | 1.00 | 1.06 | | mg/L | | 102 | 80 - 120 | | |

Lab Sample ID: 580-104201-12 MSD

Matrix: Water

Analysis Batch: 360924

Client Sample ID: SW-BG-U

Prep Type: Total Recoverable

Prep Batch: 360879

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Antimony | ND | | 1.00 | 0.987 | | mg/L | | 99 | 80 - 120 | 2 | 20 |
| Arsenic | ND | | 1.00 | 1.08 | | mg/L | | 108 | 80 - 120 | 1 | 20 |
| Barium | 0.044 | | 1.00 | 1.12 | | mg/L | | 107 | 80 - 120 | 2 | 20 |
| Beryllium | ND | | 1.00 | 1.10 | | mg/L | | 110 | 80 - 120 | 2 | 20 |
| Cadmium | ND | | 1.00 | 1.05 | | mg/L | | 105 | 80 - 120 | 2 | 20 |
| Chromium | 0.0013 | J | 1.00 | 1.07 | | mg/L | | 107 | 80 - 120 | 2 | 20 |
| Cobalt | 0.0010 | J | 1.00 | 1.07 | | mg/L | | 107 | 80 - 120 | 1 | 20 |
| Copper | ND | | 1.00 | 1.07 | | mg/L | | 107 | 80 - 120 | 2 | 20 |
| Iron | 1.7 | | 20.0 | 22.6 | | mg/L | | 104 | 80 - 120 | 1 | 20 |
| Lead | 0.00028 | J | 1.00 | 1.03 | | mg/L | | 103 | 80 - 120 | 2 | 20 |
| Silver | ND | | 1.00 | 1.07 | | mg/L | | 107 | 80 - 120 | 1 | 20 |
| Manganese | 0.12 | | 1.00 | 1.17 | | mg/L | | 105 | 80 - 120 | 2 | 20 |
| Nickel | 0.0014 | J | 1.00 | 1.07 | | mg/L | | 107 | 80 - 120 | 2 | 20 |
| Aluminum | 0.69 | | 20.0 | 21.7 | | mg/L | | 105 | 80 - 120 | 1 | 20 |

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QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 580-104201-12 MSD

Matrix: Water

Analysis Batch: 360924

Client Sample ID: SW-BG-U

Prep Type: Total Recoverable

Prep Batch: 360879

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Selenium | ND | | 1.00 | 1.06 | | mg/L | | 106 | 80 - 120 | 0 | 20 |
| Magnesium | ND | | 20.0 | ND | | mg/L | | NC | 80 - 120 | NC | 20 |
| Potassium | ND | | 20.0 | ND | | mg/L | | NC | 80 - 120 | NC | 20 |
| Thallium | ND | | 1.00 | 1.03 | | mg/L | | 103 | 80 - 120 | 1 | 20 |
| Sodium | ND | | 20.0 | ND | | mg/L | | NC | 80 - 120 | NC | 20 |
| Vanadium | 0.0048 | J | 1.00 | 1.08 | | mg/L | | 107 | 80 - 120 | 2 | 20 |
| Calcium | ND | | 20.0 | ND | | mg/L | | NC | 80 - 120 | NC | 20 |
| Zinc | 0.037 | B | 1.00 | 1.06 | | mg/L | | 102 | 80 - 120 | 0 | 20 |

Lab Sample ID: 580-104201-12 DU

Matrix: Water

Analysis Batch: 360924

Client Sample ID: SW-BG-U

Prep Type: Total Recoverable

Prep Batch: 360879

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Antimony | ND | | ND | | mg/L | | NC | 20 |
| Arsenic | ND | | ND | | mg/L | | NC | 20 |
| Barium | 0.044 | | 0.0426 | | mg/L | | 2 | 20 |
| Beryllium | ND | | ND | | mg/L | | NC | 20 |
| Cadmium | ND | | ND | | mg/L | | NC | 20 |
| Chromium | 0.0013 | J | 0.00134 | J | mg/L | | 2 | 20 |
| Cobalt | 0.0010 | J | 0.000963 | J | mg/L | | 8 | 20 |
| Copper | ND | | ND | | mg/L | | NC | 20 |
| Iron | 1.7 | | 1.68 | | mg/L | | 3 | 20 |
| Lead | 0.00028 | J | 0.000253 | J | mg/L | | 9 | 20 |
| Silver | ND | | ND | | mg/L | | NC | 20 |
| Manganese | 0.12 | | 0.119 | | mg/L | | 2 | 20 |
| Nickel | 0.0014 | J | 0.00113 | J | mg/L | | 20 | 20 |
| Aluminum | 0.69 | | 0.668 | | mg/L | | 4 | 20 |
| Selenium | ND | | ND | | mg/L | | NC | 20 |
| Magnesium | ND | | ND | | mg/L | | NC | 20 |
| Potassium | ND | | ND | | mg/L | | NC | 20 |
| Thallium | ND | | ND | | mg/L | | NC | 20 |
| Sodium | ND | | ND | | mg/L | | NC | 20 |
| Vanadium | 0.0048 | J | 0.00477 | J | mg/L | | 0.4 | 20 |
| Calcium | ND | | ND | | mg/L | | NC | 20 |
| Zinc | 0.037 | B | 0.0379 | | mg/L | | 1 | 20 |

Method: 2540G - SM 2540G

Lab Sample ID: 580-104201-6 DU

Matrix: Solid

Analysis Batch: 360889

Client Sample ID: SS-01

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Percent Solids | 91.5 | | 91.1 | | % | | 0.5 | 20 |
| Percent Moisture | 8.5 | | 8.9 | | % | | 5 | 20 |

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Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-BG-U

Date Collected: 07/01/21 14:48

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-1

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 2540G | | 1 | 360889 | 07/02/21 12:41 | TMH | FGS SEA |

Client Sample ID: SE-BG-U

Date Collected: 07/01/21 14:48

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-1

Matrix: Solid

Percent Solids: 63.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3050B | | | 360881 | 07/02/21 11:51 | C1K | FGS SEA |
| Total/NA | Analysis | 6020B | | 10 | 360922 | 07/02/21 15:06 | FCW | FGS SEA |

Client Sample ID: SE-02

Date Collected: 07/01/21 15:30

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-2

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 2540G | | 1 | 360889 | 07/02/21 12:41 | TMH | FGS SEA |

Client Sample ID: SE-02

Date Collected: 07/01/21 15:30

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-2

Matrix: Solid

Percent Solids: 57.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3050B | | | 360881 | 07/02/21 11:51 | C1K | FGS SEA |
| Total/NA | Analysis | 6020B | | 10 | 360922 | 07/02/21 15:44 | FCW | FGS SEA |

Client Sample ID: SE-BG-D

Date Collected: 07/01/21 16:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-3

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 2540G | | 1 | 360889 | 07/02/21 12:41 | TMH | FGS SEA |

Client Sample ID: SE-BG-D

Date Collected: 07/01/21 16:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-3

Matrix: Solid

Percent Solids: 58.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3050B | | | 360881 | 07/02/21 11:51 | C1K | FGS SEA |
| Total/NA | Analysis | 6020B | | 10 | 360922 | 07/02/21 15:48 | FCW | FGS SEA |

Client Sample ID: SE-01

Date Collected: 07/01/21 15:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-4

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 2540G | | 1 | 360889 | 07/02/21 12:41 | TMH | FGS SEA |

Eurofins FGS, Seattle

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SE-01

Date Collected: 07/01/21 15:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-4

Matrix: Solid

Percent Solids: 69.4

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3050B | | | 360881 | 07/02/21 11:51 | C1K | FGS SEA |
| Total/NA | Analysis | 6020B | | 10 | 360922 | 07/02/21 15:52 | FCW | FGS SEA |

Client Sample ID: SE-03

Date Collected: 07/01/21 15:35

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-5

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 2540G | | 1 | 360889 | 07/02/21 12:42 | TMH | FGS SEA |

Client Sample ID: SE-03

Date Collected: 07/01/21 15:35

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-5

Matrix: Solid

Percent Solids: 54.8

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3050B | | | 360881 | 07/02/21 11:51 | C1K | FGS SEA |
| Total/NA | Analysis | 6020B | | 10 | 360922 | 07/02/21 15:55 | FCW | FGS SEA |

Client Sample ID: SS-01

Date Collected: 07/01/21 15:15

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-6

Matrix: Solid

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 2540G | | 1 | 360889 | 07/02/21 12:42 | TMH | FGS SEA |

Client Sample ID: SS-01

Date Collected: 07/01/21 15:15

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-6

Matrix: Solid

Percent Solids: 91.5

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 3050B | | | 360881 | 07/02/21 11:51 | C1K | FGS SEA |
| Total/NA | Analysis | 6020B | | 10 | 360922 | 07/02/21 15:59 | FCW | FGS SEA |

Client Sample ID: SW-01

Date Collected: 07/01/21 15:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-7

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 360879 | 07/02/21 11:29 | C1K | FGS SEA |
| Total Recoverable | Analysis | 6020B | | 5 | 360924 | 07/02/21 17:16 | FCW | FGS SEA |

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Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Client Sample ID: SW-FR

Date Collected: 07/01/21 16:17

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-8

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 360879 | 07/02/21 11:28 | C1K | FGS SEA |
| Total Recoverable | Analysis | 6020B | | 5 | 360924 | 07/02/21 17:12 | FCW | FGS SEA |

Client Sample ID: SW-02

Date Collected: 07/01/21 15:30

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-9

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 360879 | 07/02/21 11:28 | C1K | FGS SEA |
| Total Recoverable | Analysis | 6020B | | 5 | 360924 | 07/02/21 17:08 | FCW | FGS SEA |

Client Sample ID: SW-03

Date Collected: 07/01/21 15:35

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-10

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 360879 | 07/02/21 11:28 | C1K | FGS SEA |
| Total Recoverable | Analysis | 6020B | | 5 | 360924 | 07/02/21 17:19 | FCW | FGS SEA |

Client Sample ID: SW-BG-D

Date Collected: 07/01/21 16:00

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-11

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 360879 | 07/02/21 11:28 | C1K | FGS SEA |
| Total Recoverable | Analysis | 6020B | | 5 | 360924 | 07/02/21 17:04 | FCW | FGS SEA |

Client Sample ID: SW-BG-U

Date Collected: 07/01/21 14:48

Date Received: 07/02/21 07:55

Lab Sample ID: 580-104201-12

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 360879 | 07/02/21 11:28 | C1K | FGS SEA |
| Total Recoverable | Analysis | 6020B | | 5 | 360924 | 07/02/21 16:22 | FCW | FGS SEA |

Laboratory References:

FGS SEA = Eurofins FGS, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Eurofins FGS, Seattle

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

Laboratory: Eurofins FGS, Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Alaska (UST) | State | 20-004 | 02-19-22 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|--------|------------------|
| 2540G | | Solid | Percent Moisture |
| 2540G | | Solid | Percent Solids |
| 6020B | 3005A | Water | Aluminum |
| 6020B | 3005A | Water | Calcium |
| 6020B | 3005A | Water | Cobalt |
| 6020B | 3005A | Water | Iron |
| 6020B | 3005A | Water | Magnesium |
| 6020B | 3005A | Water | Potassium |
| 6020B | 3005A | Water | Sodium |
| 6020B | 3050B | Solid | Aluminum |
| 6020B | 3050B | Solid | Calcium |
| 6020B | 3050B | Solid | Cobalt |
| 6020B | 3050B | Solid | Iron |
| 6020B | 3050B | Solid | Magnesium |
| 6020B | 3050B | Solid | Potassium |
| 6020B | 3050B | Solid | Sodium |

| | | | |
|--------|-------|------|----------|
| Oregon | NELAP | 4167 | 07-07-21 |
|--------|-------|------|----------|

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|--------|----------------|
| 2540G | | Solid | Percent Solids |
| 6020B | 3005A | Water | Calcium |
| 6020B | 3005A | Water | Magnesium |
| 6020B | 3005A | Water | Potassium |
| 6020B | 3005A | Water | Sodium |
| 6020B | 3050B | Solid | Calcium |
| 6020B | 3050B | Solid | Magnesium |
| 6020B | 3050B | Solid | Potassium |
| 6020B | 3050B | Solid | Sodium |

Sample Summary

Client: Weston Solutions, Inc.
Project/Site: START R10-Tualatin Cu Solution Spill

Job ID: 580-104201-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 580-104201-1 | SE-BG-U | Solid | 07/01/21 14:48 | 07/02/21 07:55 |
| 580-104201-2 | SE-02 | Solid | 07/01/21 15:30 | 07/02/21 07:55 |
| 580-104201-3 | SE-BG-D | Solid | 07/01/21 16:00 | 07/02/21 07:55 |
| 580-104201-4 | SE-01 | Solid | 07/01/21 15:00 | 07/02/21 07:55 |
| 580-104201-5 | SE-03 | Solid | 07/01/21 15:35 | 07/02/21 07:55 |
| 580-104201-6 | SS-01 | Solid | 07/01/21 15:15 | 07/02/21 07:55 |
| 580-104201-7 | SW-01 | Water | 07/01/21 15:00 | 07/02/21 07:55 |
| 580-104201-8 | SW-FR | Water | 07/01/21 16:17 | 07/02/21 07:55 |
| 580-104201-9 | SW-02 | Water | 07/01/21 15:30 | 07/02/21 07:55 |
| 580-104201-10 | SW-03 | Water | 07/01/21 15:35 | 07/02/21 07:55 |
| 580-104201-11 | SW-BG-D | Water | 07/01/21 16:00 | 07/02/21 07:55 |
| 580-104201-12 | SW-BG-U | Water | 07/01/21 14:48 | 07/02/21 07:55 |



580-104201 Chain of Custody

Chain of Custody Record

Tacoma, WA 98424-1317
phone 253.922.2310 fax 253.922.5047

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

| | | | | | | | | | | | | |
|--|--------------------|--|--|-----------------------|-------------------|--|-------------------------------|-----------------------|-------------------|---------------------------|-------------------------------|--------------------------------|
| Client Contact | | Project Manager: Alex Grubb | | Site Contact: | | Date: | | COC No: 070121 | | | | |
| Weston Solutions | | Email: Alex.Grubb@WestonSolutions.com | | Tel/Fax: 415-928-9777 | | Lab Contact: | | Carrier: | | | | |
| 1011 SW Klickitat Way | | Analysis Turnaround Time | | | | | | TALS Project #: | | | | |
| Seattle, WA 98134 | | <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS | | | | | | Sampler: | | | | |
| 224-864-7242 | | TAT if different from Below _____ | | | | | | For Lab Use Only: | | | | |
| Project Name: Tualatin Copper Solution Spill | | <input type="checkbox"/> 2 weeks | | | | | | Walk-in Client: | | | | |
| Site: | | <input type="checkbox"/> 1 week | | | | | | Lab Sampling: | | | | |
| P O # | | <input type="checkbox"/> 2 days | | | | | | Job / SDG No.: | | | | |
| | | <input checked="" type="checkbox"/> 1 day | | | | | | | | | | |
| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | Perservative | TAL Metals | TAL Metals - Total | TAL Metals - Dissolved | Sample Specific Notes: |
| SE-BG-U | 7/1/2021 | 1448 | G | S | 1 | n | n | x | | | | |
| SE-02 | 7/1/2021 | 1530 | G | S | 1 | n | n | x | | | | |
| SE-BG-D | 7/1/2021 | 1600 | G | S | 1 | n | n | x | | | | |
| SE-01 | 7/1/2021 | 1500 | G | S | 1 | n | n | x | | | | |
| SE-03 | 7/1/2021 | 1535 | G | S | 1 | n | n | x | | | | |
| SS-01 | 7/1/2021 | 1515 | G | S | 1 | n | n | x | | | | |
| SW-01 | 7/1/2021 | 1500 | G | W | 2 | n | 4 | | x | x | | Please filter Dissolved Metals |
| SW-FR | 7/1/2021 | 1617 | G | W | 2 | n | 4 | | x | x | | Please filter Dissolved Metals |
| SW-02 | 7/1/2021 | 1530 | G | W | 2 | n | 4 | | x | x | | Please filter Dissolved Metals |
| SW-03 | 7/1/2021 | 1535 | G | W | 2 | n | 4 | | x | x | | Please filter Dissolved Metals |
| SW-BG-D | 7/1/2021 | 1600 | G | W | 2 | n | 4 | | x | x | | Please filter Dissolved Metals |
| SW-BG-U | 7/1/2021 | 1448 | G | W | 2 | n | 4 | | x | x | | Please filter Dissolved Metals |
| Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other | | | | | | | | | | | | |
| Possible Hazard Identification: | | | | | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | | | | | |
| Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. | | | | | | | | | | | | |
| <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown | | | | | | <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab | | | | | | |
| Special Instructions/QC Requirements & Comments: | | | | | | Therm. ID: A2 Cor: 5.4 ° Unc: 5.5 ° Cooler Desc: 1g R Packing: 1g R FedEx: FO Cust. Seal: Yes <input checked="" type="checkbox"/> No Blue Ice: Wet, Dry, None Other: | | | | | | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | Cooler Temp. (°C): Obs'd: _____ | | | | | | |
| Relinquished by: | | Company: | | Date/Time: | | Received by: | | Company: | | Date/Time: | | |
| Relinquished by: | | Company: | | Date/Time: | | Received by: | | Company: | | Date/Time: | | |
| Relinquished by: | | Company: | | Date/Time: | | Received in Laboratory by: | | Company: | | Date/Time: | | |

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 580-104201-1

Login Number: 104201

List Source: Eurofins FGS, Seattle

List Number: 1

Creator: Greene, Ashton R

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | No name |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |