

Coleman Creek Consulting, Inc.

**DRINKING WATER LEAD SAMPLING**  
**OF**  
**EARLY CHILDHOOD SERVICES ESD FACILITY**  
**1021 NW HIGHLAND AVENUE, GRANTS PASS, OREGON**  
**FOR**  
**SOUTHERN OREGON EDUCATION SERVICE DISTRICT**

**INTRODUCTION**

Coleman Creek Consulting, Inc. (CCC) was retained by the Southern Oregon Education Service District (SOESD) to perform representative lead and copper drinking water sampling of the Early Childhood Services ESD Facility at the above address. The purpose of the lead and copper drinking water sampling was to determine the concentration of lead and copper in representative drinking water sources and compare with regulatory standards. In 2017, Education Service Districts were required to adopt a Healthy and Safe Schools Plan, including provisions for testing and reducing exposure to elevated levels of lead in water used for drinking and food preparation.

**LEAD DRINKING WATER SAMPLING REQUIREMENTS**

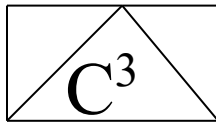
Guidelines for sampling lead in water were established by the Oregon Health Authority. Water sampling is to occur after water sits overnight in the pipes without being used, and must be sampled after a day occupied by students or building occupants. All water sources are to be sampled, with the exception of water used for heating, sanitation, irrigation, and science sinks for grades 6 and up with non-potable water signs. Initial testing is required to be performed by 2020, and every 6 years thereafter, according to a testing schedule determined by the Oregon Department of Education.

**DRINKING WATER SAMPLING**

David W. Fawcett of CCC visited the Early Childhood ESD Facility on October 5, 2019. Mr. Fawcett collected a lead and copper drinking water sample from the drinking water sources identified in the facility. See Site Sample Record Sheets (page 3-6) for a description of the drinking water sources sampled. See Drinking Water Sample Location Diagram in Appendix A for a visual review of all drinking water sample locations. The drinking water samples were collected in the early morning, ensuring that the sample source had not been in use since the previous day. The sample was placed in a cooler and transported to Neilson Research Corporation for lead analysis.

**DRINKING WATER LEAD RESULTS AND TESTING SUMMARY SHEET**

The fourteen drinking water samples collected were analyzed for lead using EPA Method 200.8. See Neilson Research Corporation Analytical Report in Appendix B. A Drinking Water Testing Summary Sheets (pages 7-8) indicates the lead in drinking water concentrations for twelve of the fourteen samples collected from the Early Childhood Services facility were reported ranging from 0.108 to 2.63



# Coleman Creek Consulting, Inc.

parts per billion (ppb). The 1<sup>st</sup> floor hall bath right and left sink faucets were reported with 24.9 and 31.8 ppb lead, with both samples above than the 15 ppb lead action level.

## **HALL BATH LEFT/RIGHT SINKS FAUCET REPLACEMENT AND RE-SAMPLE RESULTS**

The hall bath left and right sink faucets were replaced, and the new faucets re-sampled November 16, 2019. The re-sampled hall bath left and right sink faucets were reported with 25.9 and 59.3 ppb lead. Additional plumbing lines to the wall were replaced under both hall bath sinks, and the faucets were re-sampled December 7, 2019, with both initial and flush samples collected from each faucet. The initial sample collected from the right sink faucet was reported with 12.8 ppb lead. The initial sample collected from the left sink faucet was reported with 26.0 ppb lead. The left faucet sink was repeatedly flushed, and re-sampled January 31, 2020. The left sink faucet re-sample was reported with 26.4 ppb. The hall bath left sink faucet was removed, the line permanently capped, and the fixture removed from service.

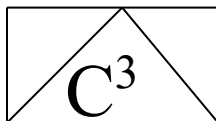
## **CONCLUSIONS**

Four drinking water locations were sampled from drinking water sources at the Grants Pass Regional ESD Facility prior to use that day by building occupants, and after a day the facility was occupied. Two of the sample locations were reported with concentrations below the 15 ppb lead action level in water. Two locations sampled (Storage Room sink faucet and White Bath sink faucet) were reported above the 15 ppb lead action level, and were capped and removed from service.

## **RECOMMENDATIONS**

Coleman Creek Consulting, Inc. recommends future drinking water sampling at the Early Childhood Services ESD Facility according to the schedule set out by the Oregon Department of Education. Coleman Creek Consulting, Inc. appreciates the opportunity to continue to perform environmental sampling and consulting services to Southern Oregon Education Service District.

David W. Fawcett  
Director of Consulting Services



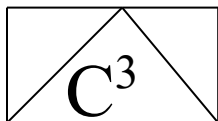
# Coleman Creek Consulting, Inc.

## DRINKING WATER LEAD/COPPER SAMPLE RECORD SHEET

FACILITY: Early Childhood Services  
ADDRESS: 1021 NW Highland  
Grants Pass, Oregon

DATE: 10-15-19  
SAMPLER: David W. Fawcett

SAMPLE #	SOURCE DESCRIPTION	LOCATION	COLLECTION TIME
19-104G.ECS1	Sink Faucet	Purple Classroom Sink	0751
19-104G.ECS2	Drinking Fountain	Purple Classroom Drinking Fountain	0752
19-104G.ECS3	Sink Faucet	Red Classroom Bath Small Sink	0754
19-104G.ECS4	Sink Faucet	Red Classroom Bath Large Sink	0755
19-104G.ECS5	Sink Faucet	Purple Classroom Kitchen Sink	0757
19-104G.ECS6	Sink Faucet	Red Classroom Sink	0800
19-104G.ECS7	Drinking Fountain	Red Classroom Drinking Fountain	0801
19-104G.ECS8	Sink Faucet	1 <sup>st</sup> Floor Hall Bath Left Sink	0805
19-104G.ECS9	Sink Faucet	1 <sup>st</sup> Floor Hall Bath Right Sink	0806
19-104G.ECS10	Sink Faucet	1 <sup>st</sup> Floor Kitchen Sink	0808
19-104G.ECS11	Filtered Dispenser	1 <sup>st</sup> Floor Kitchen Sink	0809
19-104G.ECS12	Sink Faucet	Bungalow Bath Cold Water	0815
19-104G.ECS13	Sink Faucet	Bungalow Bath Warm Water	0817
19-104G.ECS14	Drinking Fountain	Playground Outside Fountain	0821



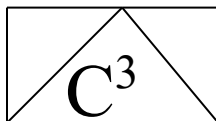
Coleman Creek Consulting, Inc.

**DRINKING WATER LEAD/COPPER SAMPLE RECORD SHEET**

FACILITY: Early Childhood Services  
ADDRESS: 1021 NW Highland  
Grants Pass, Oregon

DATE: 11-16-19  
SAMPLER: David W. Fawcett

SAMPLE #	SOURCE DESCRIPTION	LOCATION	COLLECTION TIME
19-104G.ECS15	Sink Faucet	Hall Bath Right Sink	0853
19-104G.ECS16	Sink Faucet	Hall Bath Left Sink	0854



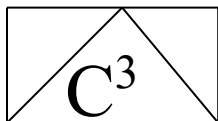
Coleman Creek Consulting, Inc.

**DRINKING WATER LEAD/COPPER SAMPLE RECORD SHEET**

FACILITY: Early Childhood Services  
ADDRESS: 1021 NW Highland  
Grants Pass, Oregon

DATE: 12-07-19  
SAMPLER: David W. Fawcett

SAMPLE #	SOURCE DESCRIPTION	LOCATION	COLLECTION TIME
19-104G.ECS17	Sink Faucet	Hall Bath Left Sink – 1 <sup>st</sup> Sample	0807
19-104G.ECS18	Sink Faucet	Hall Bath Left Sink – Flush Sample	0808
19-104G.ECS19	Sink Faucet	Hall Bath Right Sink – 1 <sup>st</sup> Sample	0810
19-104G.ECS20	Sink Faucet	Hall Bath Left Sink 1 – Flush Sample	0811



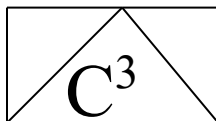
Coleman Creek Consulting, Inc.

**DRINKING WATER LEAD/COPPER SAMPLE RECORD SHEET**

FACILITY: Early Childhood Services  
ADDRESS: 1021 NW Highland  
Grants Pass, Oregon

DATE: 01-31-20  
SAMPLER: David W. Fawcett

SAMPLE #	SOURCE DESCRIPTION	LOCATION	COLLECTION TIME
19-104G.ECS21	Sink Faucet	Hall Bath Left Sink	0630



# Coleman Creek Consulting, Inc.

## DRINKING WATER TESTING SUMMARY SHEET

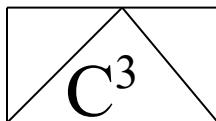
DISTRICT NAME: Southern Oregon Education Service District  
DISTRICT ID#: 2025  
SCHOOL NAME: Early Childhood Services  
BUILDING NAME: ECS Main Building  
BUILDING ID#: 20250008

Sample Number	Fixture Location Description	Fixture ID#	Test Date	Test Result (ppb)	# Retest	Final Result (ppb)
19-104G.ECS1	Purple Classroom	CF	10-05-19	1.41		
19-104G.ECS2	Purple Classroom	DW	10-05-19	0.187		
19-104G.ECS3	Red Classroom - Small	BF	10-05-19	0.245		
19-104G.ECS4	Red Classroom - Large	BF	10-05-19	0.61		
19-104G.ECS5	Purple/Red Kitchen	KF	10-05-19	0.108		
19-104G.ECS6	Red Classroom	CF	10-05-19	0.526		
19-104G.ECS7	Red Classroom	DW	10-05-19	0.612		
19-104G.ECS8	1 <sup>st</sup> Floor Hall Bath, Left	BF	10-05-19	24.9	3	12.8
19-104G.ECS9	1 <sup>st</sup> Floor Hall Bath, Right	BF	10-05-19	31.8	4	26.4**
19-104G.ECS10	1 <sup>st</sup> Floor Kitchen	KF	10-05-19	1.39		
19-104G.ECS11	1 <sup>st</sup> Floor Kitchen, Filtered	KF	10-05-19	2.63		
19-104G.ECS14	Playground Fountain	OS	10-05-19	0.177		

Fixture ID Coding:

DW = Drinking Water Fountain WC = Water Cooler WB = Water Bottle Filler  
CF = Classroom Faucet BF = Bathroom Faucet SF = Staff/Office Faucet  
KF = Kitchen/Food Prep OS = Outside Spigot OT = Other (Specify)

\*\*Indicates fixture permanently deleted from service.



# Coleman Creek Consulting, Inc.

## DRINKING WATER TESTING SUMMARY SHEET

DISTRICT NAME: Southern Oregon Education Service District  
DISTRICT ID#: 2025  
SCHOOL NAME: Early Childhood Services  
BUILDING NAME: ECS Office Building  
BUILDING ID#: 20250009

Sample Number	Fixture Location Description	Fixture ID#	Test Date	Test Result (ppb)	# Retest	Final Result (ppb)
19-104G.ECS12	Bungalow Bath Cold	BF	10-05-19	0.86		
19-104G.ECS13	Bungalow Bath Hot	BF	10-05-19	3.73		

Fixture ID Coding:

DW = Drinking Water Fountain WC = Water Cooler WB = Water Bottle Filler  
CF = Classroom Faucet BF = Bathroom Faucet SF = Staff/Office Faucet  
KF = Kitchen/Food Prep OS = Outside Spigot OT = Other (Specify)

\*\*Indicates fixture permanently deleted from service.

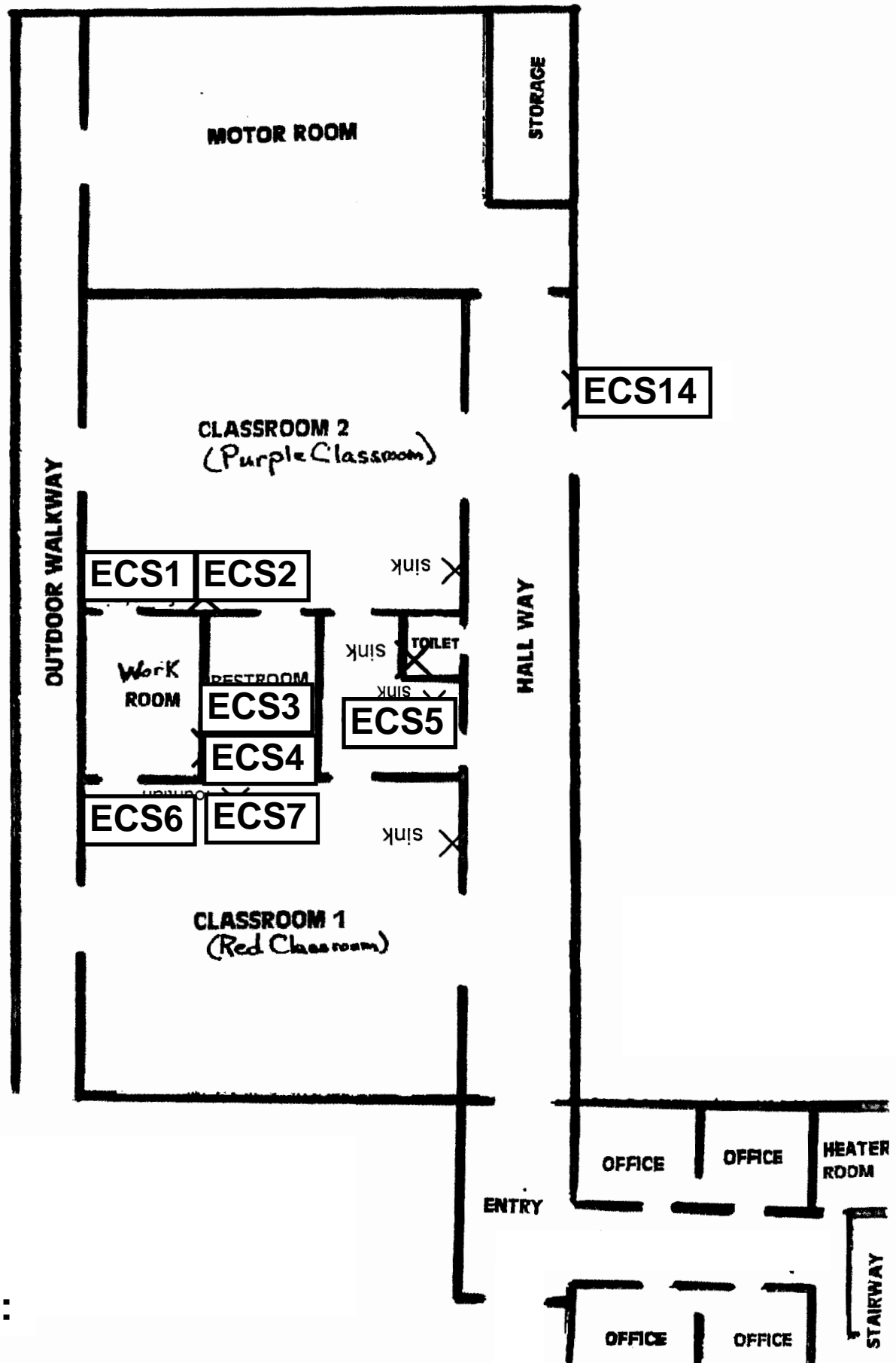


**APPENDIX A**

**DRINKING WATER SAMPLE LOCATION  
DIAGRAM**

# DRINKING WATER SAMPLE LOCATION DIAGRAM

ECS Classroom Building - 1021 NW Highland, Grants Pass

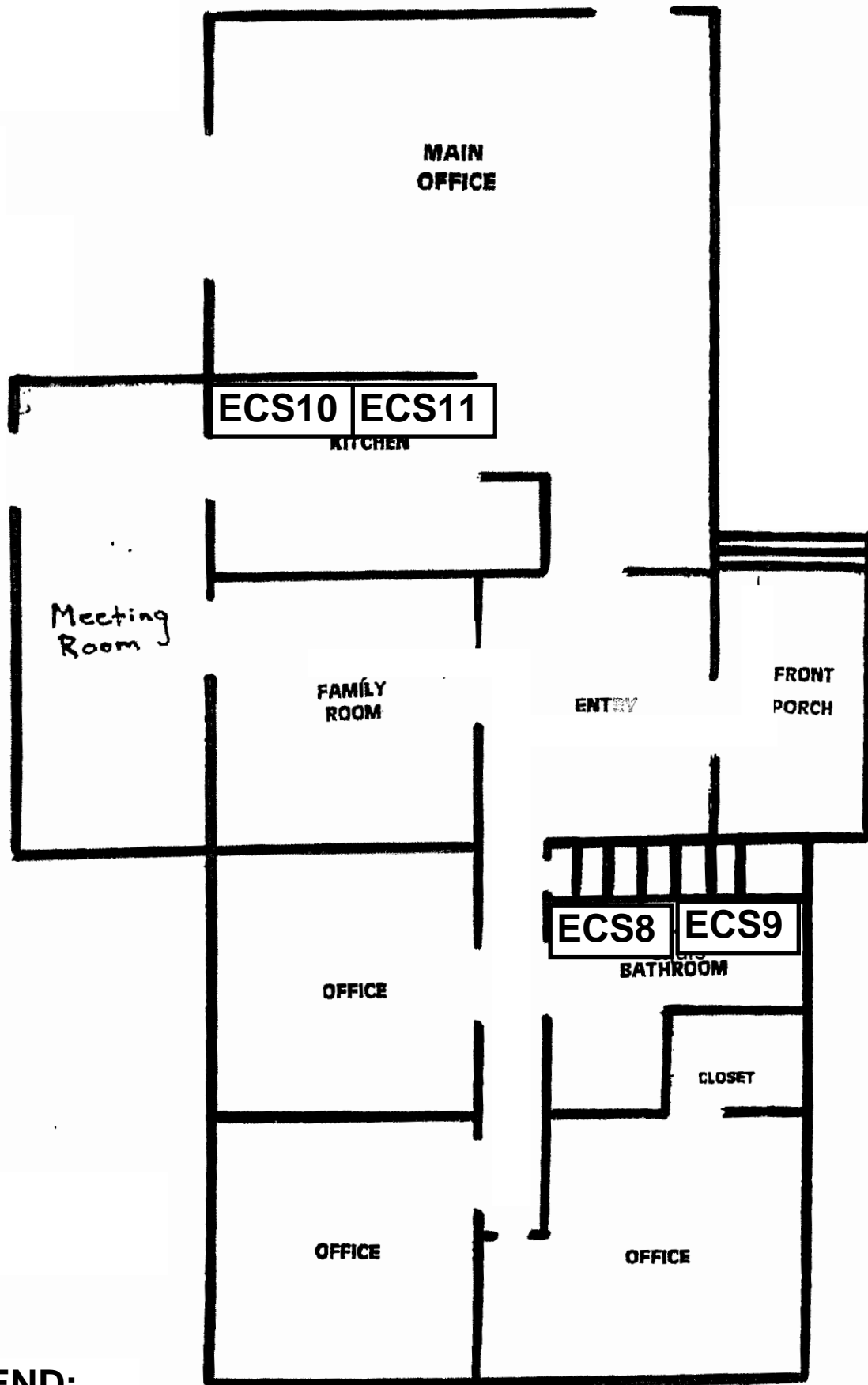


## LEGEND:

**ECS3** = Drinking Water Sample Location

# DRINKING WATER SAMPLE LOCATION DIAGRAM

ECS Upstairs Building - 1021 NW Highland, Grants Pass

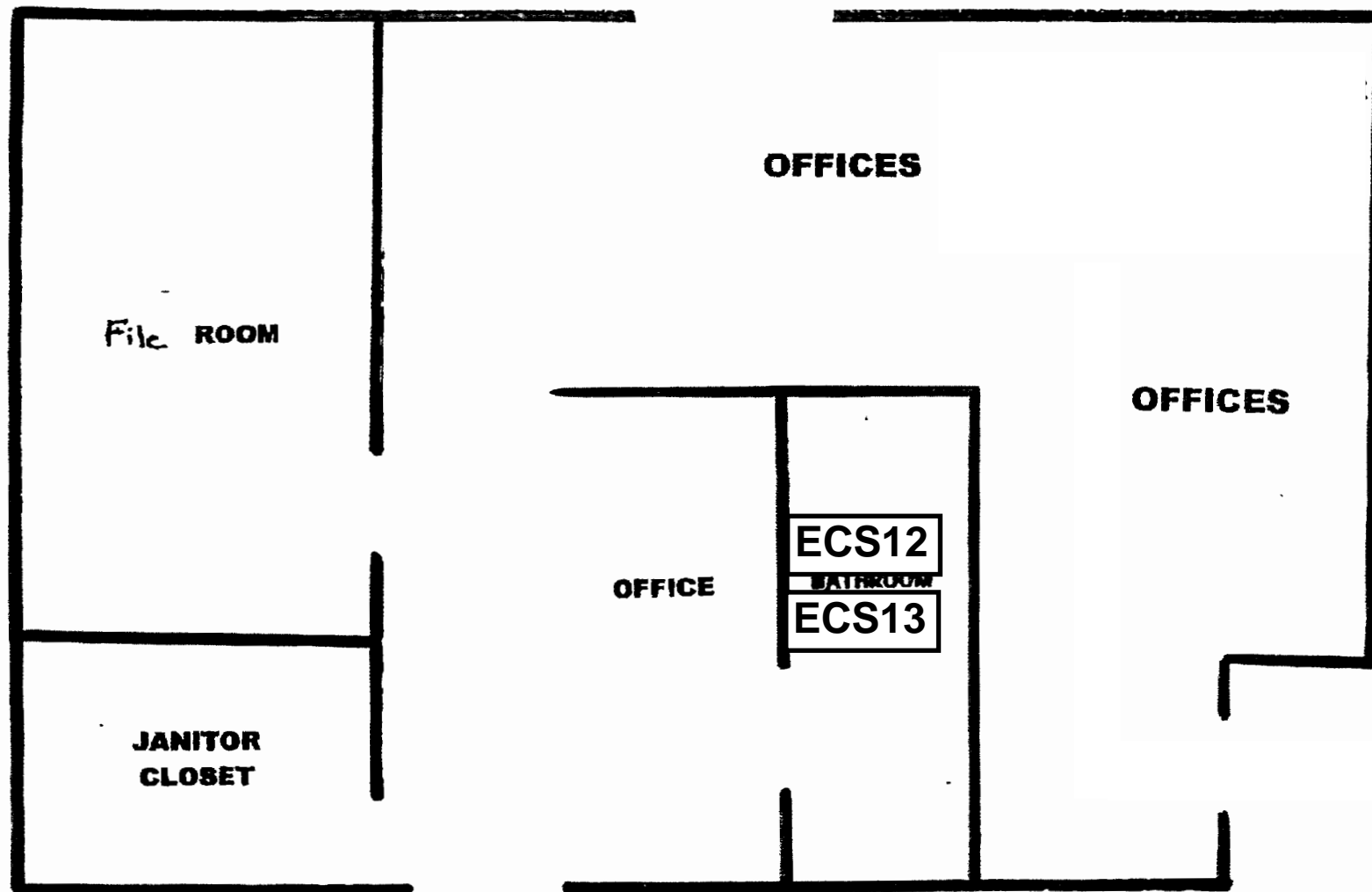


## LEGEND:

**ECS8** = Drinking Water Sample Location

# DRINKING WATER SAMPLE LOCATION DIAGRAM

ECS Bungalow - 1021 NW Highland, Grants Pass



## LEGEND:

**ECS12** = Drinking Water Sample Location

## **APPENDIX B**

### **NEILSON RESEARCH CORPORATION ANALYTICAL REPORT**



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: [www.nrclabs.com](http://www.nrclabs.com)

October 11, 2019

Dave Fawcett  
Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520  
TEL: (541) 535-7108  
FAX: (541) 535-8795

RE: 19-104G GP-ECS

Order No.: 19100307

Dear Dave Fawcett:

Neilson Research Corporation received 14 sample(s) on 10/7/2019 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Tamra Schmedemann  
Senior Project Manager  
245 S Grape St  
Medford, OR 97501

Original



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: [www.nrclabs.com](http://www.nrclabs.com)

## Case Narrative

WO#: 19100307  
Date: 10/11/2019

---

**CLIENT:** Coleman Creek Consulting  
**Project:** 19-104G GP-ECS

---

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

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Original



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: www.nrclabs.com

## Analytical Report

WO#: 19100307

Date Reported: 10/11/2019

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 19100307  
**Received Date:** 10/7/2019 11:17:00 AM  
**Reported Date:** 10/11/2019 12:15:32 PM

Sample Information:

**Lab ID:** 19100307-01      Client Sample ID: 19-104G.ECS1  
Collection Date: 10/5/2019 7:51:00 AM      Collected By: Dave Fawcett  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	433		0.515	µg/L	1	10/9/2019	1300	A
Lead	1.41		0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-02      Client Sample ID: 19-104G.ECS2  
Collection Date: 10/5/2019 7:52:00 AM      Collected By: Dave Fawcett  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	451		0.515	µg/L	1	10/9/2019	1300	A
Lead	0.187		0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-03      Client Sample ID: 19-104G.ECS3  
Collection Date: 10/5/2019 7:54:00 AM      Collected By: Dave Fawcett  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	206		0.515	µg/L	1	10/9/2019	1300	A
Lead	0.245		0.103	µg/L	1	10/9/2019	15.0	A

**QUALIFIERS**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

- C1 Sample container temperature is out of limit as specified at testcode
- H Holding times for preparation or analysis exceeded
- MI Recovery outside control limits due to Matrix Interference
- PL Permit Limit

Results are out of the EPA limits

Original





Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: www.nrclabs.com

## Analytical Report

WO#: 19100307

Date Reported: 10/11/2019

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 19100307  
**Received Date:** 10/7/2019 11:17:00 AM  
**Reported Date:** 10/11/2019 12:15:32 PM

Sample Information:

**Lab ID:** 19100307-04 **Client Sample ID:** 19-104G.ECS4  
**Collection Date:** 10/5/2019 7:55:00 AM **Collected By:** Dave Fawcett  
**Matrix:** Drinking Water **Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	292		0.515	µg/L	1	10/9/2019	1300	A
Lead	0.610		0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-05 **Client Sample ID:** 19-104G.ECS5  
**Collection Date:** 10/5/2019 7:57:00 AM **Collected By:** Dave Fawcett  
**Matrix:** Drinking Water **Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	281		0.515	µg/L	1	10/9/2019	1300	A
Lead	0.108		0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-06 **Client Sample ID:** 19-104G.ECS6  
**Collection Date:** 10/5/2019 8:00:00 AM **Collected By:** Dave Fawcett  
**Matrix:** Drinking Water **Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	287		0.515	µg/L	1	10/9/2019	1300	A
Lead	0.526		0.103	µg/L	1	10/9/2019	15.0	A

QUALIFIERS	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	R	RPD outside accepted recovery limits		

Results are out of the EPA limits

Original



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## Analytical Report

WO#: 19100307

Date Reported: 10/11/2019

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 19100307  
**Received Date:** 10/7/2019 11:17:00 AM  
**Reported Date:** 10/11/2019 12:15:32 PM

Sample Information:

**Lab ID:** 19100307-07 **Client Sample ID:** 19-104G.ECS7  
**Collection Date:** 10/5/2019 8:01:00 AM **Collected By:** Dave Fawcett  
**Matrix:** Drinking Water **Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	146		0.515	µg/L	1	10/9/2019	1300	A
Lead	0.612		0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-08 **Client Sample ID:** 19-104G.ECS8  
**Collection Date:** 10/5/2019 8:05:00 AM **Collected By:** Dave Fawcett  
**Matrix:** Drinking Water **Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	315		0.515	µg/L	1	10/9/2019	1300	A
Lead	24.9	*	0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-09 **Client Sample ID:** 19-104G.ECS9  
**Collection Date:** 10/5/2019 8:06:00 AM **Collected By:** Dave Fawcett  
**Matrix:** Drinking Water **Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	181		0.515	µg/L	1	10/9/2019	1300	A
Lead	31.8	*	0.103	µg/L	1	10/9/2019	15.0	A

QUALIFIERS	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	R	RPD outside accepted recovery limits		

Results are out of the EPA limits

Original



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Medford, OR 97501  
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Website: www.nrclabs.com

## Analytical Report

WO#: 19100307

Date Reported: 10/11/2019

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 19100307  
**Received Date:** 10/7/2019 11:17:00 AM  
**Reported Date:** 10/11/2019 12:15:32 PM

Sample Information:

**Lab ID:** 19100307-10  
**Collection Date:** 10/5/2019 8:08:00 AM  
**Matrix:** Drinking Water  
**Client Sample ID:** 19-104G.ECS10  
**Collected By:** Dave Fawcett  
**Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	54.9		0.515	µg/L	1	10/9/2019	1300	A
Lead	1.39		0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-11  
**Collection Date:** 10/5/2019 8:09:00 AM  
**Matrix:** Drinking Water  
**Client Sample ID:** 19-104G.ECS11  
**Collected By:** Dave Fawcett  
**Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	2.61		0.515	µg/L	1	10/9/2019	1300	A
Lead	2.63		0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-12  
**Collection Date:** 10/5/2019 8:15:00 AM  
**Matrix:** Drinking Water  
**Client Sample ID:** 19-104G.ECS12  
**Collected By:** Dave Fawcett  
**Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	5.64		0.515	µg/L	1	10/9/2019	1300	A
Lead	0.860		0.103	µg/L	1	10/9/2019	15.0	A

QUALIFIERS	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	R	RPD outside accepted recovery limits		

Results are out of the EPA limits

Original



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Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: www.nrclabs.com

## Analytical Report

WO#: 19100307  
Date Reported: 10/11/2019

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 19100307  
**Received Date:** 10/7/2019 11:17:00 AM  
**Reported Date:** 10/11/2019 12:15:32 PM

Sample Information:

**Lab ID:** 19100307-13      Client Sample ID: 19-104G.ECS13  
Collection Date: 10/5/2019 8:17:00 AM      Collected By: Dave Fawcett  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	13.1		0.515	µg/L	1	10/9/2019	1300	A
Lead	3.73		0.103	µg/L	1	10/9/2019	15.0	A

**Lab ID:** 19100307-14      Client Sample ID: 19-104G.ECS14  
Collection Date: 10/5/2019 8:21:00 AM      Collected By: Dave Fawcett  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	584		0.515	µg/L	1	10/9/2019	1300	A
Lead	0.177		0.103	µg/L	1	10/9/2019	15.0	A

QUALIFIERS	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	R	RPD outside accepted recovery limits		

Results are out of the EPA limits

Original



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 19100307  
11-Oct-19

Client: Coleman Creek Consulting  
Project: 19-104G GP-ECS

TestCode: ICPMS\_200.8\_DW

Sample ID: <b>MB-2024</b>	SampType: <b>MBLK</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>10/8/2019</b>	RunNo: <b>4703</b>						
Client ID: <b>PBW</b>	Batch ID: <b>2024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91250</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.515									
Lead	ND	0.103									

Sample ID: <b>LCS-2024</b>	SampType: <b>LCS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>10/8/2019</b>	RunNo: <b>4703</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>2024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91251</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	108	0.520	100	0	108	85	115				
Lead	101	0.104	100	0	101	85	115				

Sample ID: 19100307-11AMS	SampType: MS	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 10/8/2019	RunNo: 4703						
Client ID: 19-104G.ECS11	Batch ID: 2024	TestNo: E200.8	E200.8	Analysis Date: 10/9/2019	SeqNo: 91274						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	105	0.520	100	2.61	102	70	130				
Lead	101	0.104	100	2.63	98.5	70	130				

Sample ID: 19100307-11AMSD	SampType: MSD	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 10/8/2019	RunNo: 4703						
Client ID: 19-104G.ECS11	Batch ID: 2024	TestNo: E200.8	E200.8	Analysis Date: 10/9/2019	SeqNo: 91275						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	107	0.520	100	2.61	104	70	130	105	1.90	20	

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. C1 Sample container temperature is out of limit as specified at testcode H Holding times for preparation or analysis exceed  
MI Recovery outside control limits due to Matrix Interference ND Not Detected at the Reporting Limit PL Permit Limit  
RL Reporting Detection Limit

Original



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Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 19100307  
11-Oct-19

Client: Coleman Creek Consulting  
Project: 19-104G GP-ECS

TestCode: ICPMS\_200.8\_DW

Sample ID: 19100307-11AMSD	SampType: MSD	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 10/8/2019	RunNo: 4703						
Client ID: 19-104G.ECS11	Batch ID: 2024	TestNo: E200.8	E200.8	Analysis Date: 10/9/2019	SeqNo: 91275						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	104	0.104	100	2.63	101	70	130	101	2.50	20	

Sample ID: MB-2037	SampType: MBLK	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 10/9/2019	RunNo: 4738						
Client ID: PBW	Batch ID: 2037	TestNo: E200.8	E200.8	Analysis Date: 10/9/2019	SeqNo: 91888						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.515									
Lead	ND	0.103									

Sample ID: LCS-2037	SampType: LCS	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 10/9/2019	RunNo: 4738						
Client ID: LCSW	Batch ID: 2037	TestNo: E200.8	E200.8	Analysis Date: 10/9/2019	SeqNo: 91889						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	97.4	0.515	100	0	97.4	85	115				
Lead	102	0.103	100	0	102	85	115				

Sample ID: 19100322-03AMS	SampType: MS	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 10/9/2019	RunNo: 4738						
Client ID: BatchQC	Batch ID: 2037	TestNo: E200.8	E200.8	Analysis Date: 10/9/2019	SeqNo: 91908						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	125	0.520	100	28.9	96.4	70	130				
Lead	121	0.104	100	19.4	101	70	130				

**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	C1 Sample container temperature is out of limit as specified at testcode	H Holding times for preparation or analysis exceed
MI Recovery outside control limits due to Matrix Interference	ND Not Detected at the Reporting Limit	PL Permit Limit
RL Reporting Detection Limit		

Original



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Medford, OR 97501  
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Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 19100307  
11-Oct-19

**Client:** Coleman Creek Consulting  
**Project:** 19-104G GP-ECS

**TestCode:** ICPMS\_200.8\_DW

Sample ID: 19100322-03AMS	SampType: MS	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 10/9/2019	RunNo: 4738						
Client ID: BatchQC	Batch ID: 2037	TestNo: E200.8	E200.8	Analysis Date: 10/9/2019	SeqNo: 91908						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 19100322-03AMSD	SampType: MSD	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 10/9/2019	RunNo: 4738						
Client ID: BatchQC	Batch ID: 2037	TestNo: E200.8	E200.8	Analysis Date: 10/9/2019	SeqNo: 91909						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	128	0.520	100	28.9	98.6	70	130	125	1.80	20	
Lead	120	0.104	100	19.4	101	70	130	121	0.0354	20	

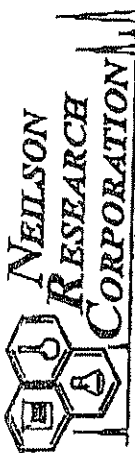
### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
PL Permit Limit

Original



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(541) 770-5678 fax (541) 770-2501

# Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Page 1 of 2

10/07/2019 13:19 Neilson Research

(FAX) 541 770 2901

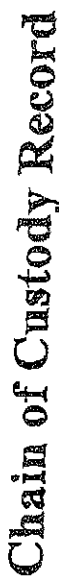
P.003/004

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information		Section D Rush Status (Subject to Scheduling)	
Company:	Coleman Creek Consulting	Project Name:	GP-ECS	Attention:		<input checked="" type="checkbox"/> Standard 10-14 Days	
Address:	810 Leonard St	Project Number:	19-1046	Company Name:		<input type="checkbox"/> 5 Business Days (50% surcharge)	
	Ashland, OR 97520	Report To:	Dave Fawcett	Address:		<input type="checkbox"/> 3 Business Days (75% surcharge)	
Email:	fawbro@ccountry.net	Copy To:		P.O. #		<input type="checkbox"/> 24 - 48 hours (100% surcharge)	
Phone:	(541) 535-7108 Fax (541) 535-8795					Other	
Collected By (Print):	Dave Fawcett					Authorized	Yes <input type="checkbox"/> No <input type="checkbox"/>
Collected By (Sign):	<i>[Signature]</i>						
Email Report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mail Report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Fax Report	<input type="checkbox"/> Yes <input type="checkbox"/> No						

Section E Sample Information		Section F Analysis Requested		Section G Remarks/Field Data		Section H NRC Sample # (Lab Use Only)	
Sample ID	Comp/Grab	Date Collected	Time Collected	No. of Containers	Analysis Requested	Remarks/Field Data	NRC Sample # (Lab Use Only)
19-1046-ECS1	Grab	10-5-19	0751	1			01A
ECS2			0752	1			02A
ECS3			0754	1			03A
ECS4			0755	1			04A
ECS5			0757	1			05A
ECS6			0800	1			06A
ECS7			0801	1			07A
ECS8			0805	1			08A
ECS9			0806	1			09A
ECS10			0808	1			10A

Section F Refrinquinshu/Receive		Section G Lab Use Only		Section H Received Via	
Refrinquinshu By:	<i>[Signature]</i>	Temp:	4°C +/- 2°C	Received on:	10-7-19
Received By:		Yes	No	Number of bottles received:	1
Refrinquinshu By:		Yes	No	pH checked:	
Received By:		Yes	No	GOC Seals intact:	
Refrinquinshu By:		Yes	No	Field Blank intact:	
Received By:		Yes	No	UPS:	
		Yes	No	Other:	
		Yes	No	Payment:	
		Yes	No	Invoice	
		Yes	No	Cash	
		Yes	No	VISA, MC	
		Yes	No	Check	
		Yes	No	Amoibit	





This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Section A Required Client Information				Section B Required Project Information				Section C Invoice Information				Section D Rush Status (Subject to Scheduling)			
Company: Coleman Creek Consulting				Project Name: GP-FCS				Attention:				<input checked="" type="checkbox"/> Standard 10-14 Days			
Address: 810 Leonard St				Project Number: 19-1046				Company Name:				<input type="checkbox"/> 5 Business Days (80% surcharge)			
Email: fawbro@ccountry.net				Report To:				Address:				<input type="checkbox"/> 3 Business Days (75% surcharge)			
Phone: (541) 535-7108 Fax: (541) 535-8785				Copy To:				P.O. #				<input type="checkbox"/> 24-48 hours (100% surcharge)			
Collected By (Print): David Gault												Other _____			
Collected By (Sign): <i>[Signature]</i>												Authorized _____ Yes _____ No _____			
Email Report <input checked="" type="checkbox"/> Yes _____ No _____															
Fax Report <input type="checkbox"/> Yes _____ No _____															

Section E Sample Information				Section F Relinquish/Receive				Section G Lab Use Only			
Sample ID: 19-1046, ECS11				Relinquished By: <i>[Signature]</i>				Temp: <i>20°C</i>			
ECS12				Received By:				ATC 1-2°C: _____ Yes _____ No _____			
ECS13				Relinquished By:				Received on: _____ Yes _____ No _____			
ECS14				Relinquished By:				Number of Bottles Relinquished: <i>1</i>			
				Received By Laboratory: <i>[Signature]</i>				pH Checked: _____			
								GOC Seal Intact: _____ Yes _____ No _____			
								Field Blank Included: _____ Yes _____ No _____			
								UPS: _____ FedEX: _____ Other: <input checked="" type="checkbox"/> Hand			
								Payment: <input checked="" type="checkbox"/> Invoice _____ Credit: _____ VISA/MC _____ Check: _____			

Section F Relinquish/Receive		Section G Lab Use Only	
Relinquished By: <i>[Signature]</i>	Sign	Temp: <i>20°C</i>	
Received By:		ATC 1-2°C: _____ Yes _____ No _____	
Relinquished By:		Received on: _____ Yes _____ No _____	
Received By:		Number of Bottles Relinquished: <i>1</i>	
Relinquished By:		pH Checked: _____	
Received By Laboratory: <i>[Signature]</i>		GOC Seal Intact: _____ Yes _____ No _____	
		Field Blank Included: _____ Yes _____ No _____	
		UPS: _____ FedEX: _____ Other: <input checked="" type="checkbox"/> Hand	
		Payment: <input checked="" type="checkbox"/> Invoice _____ Credit: _____ VISA/MC _____ Check: _____	

---

B	Analyte detected in the associated method blank.
BA	BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
C	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
C1	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
CF	Results confirmed by re-analysis.
CU	Cleanup performed as specified by method.
D1	The diesel elution pattern for the sample is not typical.
D2	The sample appears to be a heavier hydrocarbon range than diesel.
D3	The sample appears to be a lighter hydrocarbon range than diesel.
D4	Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
D5	Detected hydrocarbons in the diesel range appear to be weathered diesel.
E	Estimated value.
ER	Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
FC	Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
G1	The gasoline elution pattern for the sample is not typical.
G2	The sample appears to be a heavier hydrocarbon range than gasoline.
G3	The sample appears to be a lighter hydrocarbon range than gasoline.
G4	Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
HP	Sample re-analysis performed outside of method specified holding time.
HR	Sample received outside of method specified holding time.
HS	Sample analyzed for volatile organics contained headspace.
HT <input type="checkbox"/>	At the client's request, the sample was analyzed outside of method specified holding time.
H	Analysis performed outside of method specified holding time.
J	Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
L	Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
MI	Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
N	See Case Narrative on page 2 of report.
NLR	No Legionella Recovered.
PLR	Presence of Legionella Recovered.
Q	Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
R	Relative percent difference (RPD) is outside of the accepted recovery limits.
R1	Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
R3	The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
R4	Duplicate analysis failed due to result being at or near the method reporting limit.
S	Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
S1	Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
SC	Sub-contracted to another laboratory for analysis.
SP	Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
#	Value exceeds regulatory level for TCLP contaminant.
X1	The motor oil elution pattern for the sample is not typical.
X2	The sample appears to be a heavier hydrocarbon range than motor oil.
X3	The sample appears to be a lighter hydrocarbon range than motor oil.
*	Value exceeds Maximum Contaminant Level or is outside the acceptable range.

---



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: [www.nrclabs.com](http://www.nrclabs.com)

November 25, 2019

Dave Fawcett  
Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520  
TEL: (541) 535-7108  
FAX: (541) 535-8795

RE: ECS-ESD 19-104G

Order No.: 19110671

Dear Dave Fawcett:

Neilson Research Corporation received 2 sample(s) on 11/18/2019 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Tamra Schmedemann  
Senior Project Manager  
245 S Grape St  
Medford, OR 97501

Original



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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Case Narrative

WO#: 19110671

Date: 11/25/2019

---

**CLIENT:** Coleman Creek Consulting

**Project:** ECS-ESD 19-104G

---

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

---

Original



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Medford, OR 97501  
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Website: www.nrclabs.com

## Analytical Report

WO#: 19110671

Date Reported: 11/25/2019

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 19110671  
**Received Date:** 11/18/2019 9:21:00 AM  
**Reported Date:** 11/25/2019 4:10:08 PM

Sample Information:

**Lab ID:** 19110671-01      Client Sample ID: 19-104G ECS 15  
Collection Date: 11/16/2019 8:53:00 AM      Collected By: David Fawcett  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	252		0.515	µg/L	1	11/20/2019	1300	A
Lead	25.9	*	0.103	µg/L	1	11/20/2019	15.0	A

**Lab ID:** 19110671-02      Client Sample ID: 19-104G ECS 16  
Collection Date: 11/16/2019 8:54:00 AM      Collected By: David Fawcett  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	210		0.515	µg/L	1	11/20/2019	1300	A
Lead	59.3	*	0.103	µg/L	1	11/20/2019	15.0	A

QUALIFIERS	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	R	RPD outside accepted recovery limits		

Results are out of the EPA limits

Original



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TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 19110671  
25-Nov-19

Client: Coleman Creek Consulting  
Project: ECS-ESD 19-104G

TestCode: ICPMS\_200.8\_DW

Sample ID: <b>MB-2429</b>	SampType: <b>MBLK</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>11/20/2019</b>	RunNo: <b>5792</b>						
Client ID: <b>PBW</b>	Batch ID: <b>2429</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>11/20/2019</b>	SeqNo: <b>109499</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.515									
Lead	ND	0.103									

Sample ID: <b>LCS-2429</b>	SampType: <b>LCS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>11/20/2019</b>	RunNo: <b>5792</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>2429</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>11/20/2019</b>	SeqNo: <b>109500</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	113	0.520	100	0	113	85	115				
Lead	110	0.104	100	0	110	85	115				

Sample ID: 19110578-05AMS	SampType: MS	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 11/20/2019	RunNo: 5792						
Client ID: BatchQC	Batch ID: 2429	TestNo: E200.8	E200.8	Analysis Date: 11/20/2019	SeqNo: 109511						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	165	0.520	100	72.0	93.2	70	130				
Lead	99.2	0.104	100	1.06	98.1	70	130				

Sample ID: 19110578-05AMSD	SampType: MSD	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 11/20/2019	RunNo: 5792						
Client ID: BatchQC	Batch ID: 2429	TestNo: E200.8	E200.8	Analysis Date: 11/20/2019	SeqNo: 109514						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	166	0.520	100	72.0	93.7	70	130	165	0.269	20	

**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	C1 Sample container temperature is out of limit as specified at testcode	H Holding times for preparation or analysis exceed
MI Recovery outside control limits due to Matrix Interference	ND Not Detected at the Reporting Limit	PL Permit Limit
RL Reporting Detection Limit		

Original



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Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 19110671  
25-Nov-19

**Client:** Coleman Creek Consulting  
**Project:** ECS-ESD 19-104G

**TestCode:** ICPMS\_200.8\_DW

Sample ID: 19110578-05AMSD	SampType: MSD	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 11/20/2019	RunNo: 5792						
Client ID: BatchQC	Batch ID: 2429	TestNo: E200.8	E200.8	Analysis Date: 11/20/2019	SeqNo: 109514						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	97.0	0.104	100	1.06	95.9	70	130	99.2	2.25	20	

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode	H	Holding times for preparation or analysis exceed
MI	Recovery outside control limits due to Matrix Interference	ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit				

Original







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B	Analyte detected in the associated method blank.
BA	BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
C	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
C1	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
CF	Results confirmed by re-analysis.
CU	Cleanup performed as specified by method.
D1	The diesel elution pattern for the sample is not typical.
D2	The sample appears to be a heavier hydrocarbon range than diesel.
D3	The sample appears to be a lighter hydrocarbon range than diesel.
D4	Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
D5	Detected hydrocarbons in the diesel range appear to be weathered diesel.
E	Estimated value.
ER	Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
FC	Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
G1	The gasoline elution pattern for the sample is not typical.
G2	The sample appears to be a heavier hydrocarbon range than gasoline.
G3	The sample appears to be a lighter hydrocarbon range than gasoline.
G4	Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
HP	Sample re-analysis performed outside of method specified holding time.
HR	Sample received outside of method specified holding time.
HS	Sample analyzed for volatile organics contained headspace.
HT <input type="checkbox"/>	At the client's request, the sample was analyzed outside of method specified holding time.
H	Analysis performed outside of method specified holding time.
J	Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
L	Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
MI	Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
N	See Case Narrative on page 2 of report.
NLR	No Legionella Recovered.
PLR	Presence of Legionella Recovered.
Q	Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
R	Relative percent difference (RPD) is outside of the accepted recovery limits.
R1	Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
R3	The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
R4	Duplicate analysis failed due to result being at or near the method reporting limit.
S	Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
S1	Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
SC	Sub-contracted to another laboratory for analysis.
SP	Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
#	Value exceeds regulatory level for TCLP contaminant.
X1	The motor oil elution pattern for the sample is not typical.
X2	The sample appears to be a heavier hydrocarbon range than motor oil.
X3	The sample appears to be a lighter hydrocarbon range than motor oil.
*	Value exceeds Maximum Contaminant Level or is outside the acceptable range.

---



Neilson Research Corporation  
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Website: [www.nrclabs.com](http://www.nrclabs.com)

December 16, 2019

Dave Fawcett  
Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520  
TEL: (541) 535-7108  
FAX (541) 535-8795

RE: 19-104G ESC

Order No.: 19120414

Dear Dave Fawcett:

Neilson Research Corporation received 4 sample(s) on 12/9/2019 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Tamra Schmedemann  
Senior Project Manager  
245 S Grape St  
Medford, OR 97501

Original



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
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Website: [www.nrclabs.com](http://www.nrclabs.com)

## Case Narrative

WO#: 19120414  
Date: 12/16/2019

---

**CLIENT:** Coleman Creek Consulting  
**Project:** 19-104G ESC

---

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

---

Original



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Website: www.nrclabs.com

## Analytical Report

WO#: 19120414

Date Reported: 12/16/2019

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 19120414  
**Received Date:** 12/9/2019 5:05:00 PM  
**Reported Date:** 12/16/2019 10:05:56 AM

Sample Information:

**Lab ID:** 19120414-01  
**Collection Date:** 12/9/2019 8:07:00 AM  
**Matrix:** Drinking Water  
**Client Sample ID:** 19-104G- ECS 17  
**Collected By:** Dave Fawcett  
**Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	247		0.500	µg/L	1	12/11/2019	1300	A
Lead	26.0	*	0.100	µg/L	1	12/11/2019	15.0	A

**Lab ID:** 19120414-02  
**Collection Date:** 12/9/2019 8:08:00 AM  
**Matrix:** Drinking Water  
**Client Sample ID:** 19-104G- ECS 18  
**Collected By:** Dave Fawcett  
**Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	14.2		0.500	µg/L	1	12/11/2019	1300	A
Lead	1.88		0.100	µg/L	1	12/11/2019	15.0	A

**Lab ID:** 19120414-03  
**Collection Date:** 12/9/2019 8:10:00 AM  
**Matrix:** Drinking Water  
**Client Sample ID:** 19-104G- ECS 19  
**Collected By:** Dave Fawcett  
**Sample Location:** Grab

Trace Metals by EPA 200.8 ICP-MS							Analyst: SJS	
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	88.6		0.500	µg/L	1	12/11/2019	1300	A
Lead	12.8		0.100	µg/L	1	12/11/2019	15.0	A

QUALIFIERS	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	R	RPD outside accepted recovery limits		

Results are out of the EPA limits

Original



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## Analytical Report

WO#: 19120414  
Date Reported: 12/16/2019

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 19120414  
**Received Date:** 12/9/2019 5:05:00 PM  
**Reported Date:** 12/16/2019 10:05:56 AM

Sample Information:

**Lab ID:** 19120414-04      Client Sample ID: 19-104G- ECS 20  
Collection Date: 12/9/2019 8:11:00 AM      Collected By: Dave Fawcett  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS						Analyst: SJS		
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	15.5		0.500	µg/L	1	12/11/2019	1300	A
Lead	1.48		0.100	µg/L	1	12/11/2019	15.0	A

QUALIFIERS	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	R	RPD outside accepted recovery limits		

Results are out of the EPA limits

Original



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## QC SUMMARY REPORT

WO#: 19120414

16-Dec-19

Client: Coleman Creek Consulting

Project: 19-104G ESC

TestCode: ICPMS\_200.8\_DW

Sample ID: <b>MB-2576</b>	SampType: <b>MBLK</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>12/10/2019</b>	RunNo: <b>6248</b>
Client ID: <b>PBW</b>	Batch ID: <b>2576</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>12/11/2019</b>	SeqNo: <b>116860</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Copper	ND	0.500			
Lead	ND	0.100			

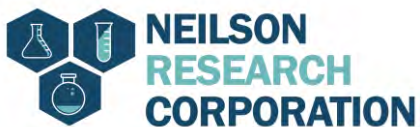
Sample ID: <b>LCS-2576</b>	SampType: <b>LCS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>12/10/2019</b>	RunNo: <b>6248</b>
Client ID: <b>LCSW</b>	Batch ID: <b>2576</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>12/11/2019</b>	SeqNo: <b>116861</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Copper	102	0.500	100	0	102 85 115
Lead	106	0.100	100	0	106 85 115

Sample ID: <b>19120415-02AMS</b>	SampType: <b>MS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>12/10/2019</b>	RunNo: <b>6248</b>
Client ID: <b>BatchQC</b>	Batch ID: <b>2576</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>12/11/2019</b>	SeqNo: <b>116871</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Copper	120	0.500	100	23.2	96.7 70 130
Lead	102	0.100	100	0.328	101 70 130

Sample ID: <b>19120415-02AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>12/10/2019</b>	RunNo: <b>6248</b>
Client ID: <b>BatchQC</b>	Batch ID: <b>2576</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>12/11/2019</b>	SeqNo: <b>116872</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Copper	121	0.500	100	23.2	97.5 70 130 120 0.673 20

**Qualifiers:** \* Value exceeds Maximum Contaminant Level. C1 Sample container temperature is out of limit as specified at testcode H Holding times for preparation or analysis exceeds  
MI Recovery outside control limits due to Matrix Interference ND Not Detected at the Reporting Limit PL Permit Limit  
RL Reporting Detection Limit

Original



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## QC SUMMARY REPORT

WO#: 19120414  
16-Dec-19

**Client:** Coleman Creek Consulting  
**Project:** 19-104G ESC

**TestCode:** ICPMS\_200.8\_DW

Sample ID: 19120415-02AMSD	SampType: MSD	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 12/10/2019	RunNo: 6248						
Client ID: BatchQC	Batch ID: 2576	TestNo: E200.8	E200.8	Analysis Date: 12/11/2019	SeqNo: 116872						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	102	0.100	100	0.328	101	70	130	102	0.0934	20	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
MI Recovery outside control limits due to Matrix Interference  
RL Reporting Detection Limit

C1 Sample container temperature is out of limit as specified at testcode  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeds  
PL Permit Limit

Original







- hr/>
- B Analyte detected in the associated method blank.
  - BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
  - C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
  - C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
  - CF Results confirmed by re-analysis.
  - CU Cleanup performed as specified by method.
  - D1 The diesel elution pattern for the sample is not typical.
  - D2 The sample appears to be a heavier hydrocarbon range than diesel.
  - D3 The sample appears to be a lighter hydrocarbon range than diesel.
  - D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
  - D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
  - E Estimated value.
  - ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
  - FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
  - G1 The gasoline elution pattern for the sample is not typical.
  - G2 The sample appears to be a heavier hydrocarbon range than gasoline.
  - G3 The sample appears to be a lighter hydrocarbon range than gasoline.
  - G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
  - HP Sample re-analysis performed outside of method specified holding time.
  - HR Sample received outside of method specified holding time.
  - HS Sample analyzed for volatile organics contained headspace.
  - HT ☐ At the client's request, the sample was analyzed outside of method specified holding time.
  - H Analysis performed outside of method specified holding time.
  - J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
  - L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
  - MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
  - N See Case Narrative on page 2 of report.
  - NLR No Legionella Recovered.
  - PLR Presence of Legionella Recovered.
  - Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
  - R Relative percent difference (RPD) is outside of the accepted recovery limits.
  - R1 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
  - R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
  - R4 Duplicate analysis failed due to result being at or near the method reporting limit.
  - S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
  - S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
  - SC Sub-contracted to another laboratory for analysis.
  - SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
  - # Value exceeds regulatory level for TCLP contaminant.
  - X1 The motor oil elution pattern for the sample is not typical.
  - X2 The sample appears to be a heavier hydrocarbon range than motor oil.
  - X3 The sample appears to be a lighter hydrocarbon range than motor oil.
  - \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.



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February 10, 2020

Dave Fawcett  
Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520  
TEL: (541) 535-7108  
FAX: (541) 535-8795

RE: 19-104G ECS

Order No.: 20011180

Dear Dave Fawcett:

Neilson Research Corporation received 1 sample(s) on 1/31/2020 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Tamra Schmedemann  
Senior Project Manager  
245 S Grape St  
Medford, OR 97501

Original



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245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: [www.nrclabs.com](http://www.nrclabs.com)

## Case Narrative

WO#: 20011180  
Date: 2/10/2020

---

**CLIENT:** Coleman Creek Consulting  
**Project:** 19-104G ECS

---

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

---

Original



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Medford, OR 97501  
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Website: www.nrclabs.com

## Analytical Report

WO#: 20011180

Date Reported: 2/10/2020

Coleman Creek Consulting  
810 Leonard St  
Ashland, OR 97520

**Lab Order:** 20011180  
**Received Date:** 1/31/2020 8:22:00 AM  
**Reported Date:** 2/10/2020 9:36:10 AM

Sample Information:

**Lab ID:** 20011180-01      Client Sample ID: 19-104G ECS 21  
Collection Date: 1/31/2020 6:30:00 AM      Collected By: David  
Matrix: Drinking Water      Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS						Analyst: SJS		
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	324		0.500	µg/L	1	2/4/2020	1300	A
Lead	26.4	*	0.100	µg/L	1	2/4/2020	15.0	A

QUALIFIERS	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcod
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	R	RPD outside accepted recovery limits		

Results are out of the EPA limits

Original



Neilson Research Corporation  
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Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 20011180  
10-Feb-20

Client: Coleman Creek Consulting  
Project: 19-104G ECS

TestCode: ICPMS\_200.8\_DW

Sample ID: <b>MB-3024</b>	SampType: <b>MBLK</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>2/3/2020</b>	RunNo: <b>7402</b>						
Client ID: <b>PBW</b>	Batch ID: <b>3024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>2/4/2020</b>	SeqNo: <b>134861</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.500									
Lead	ND	0.100									

Sample ID: <b>LCS-3024</b>	SampType: <b>LCS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>2/3/2020</b>	RunNo: <b>7402</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>3024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>2/4/2020</b>	SeqNo: <b>134862</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	103	0.500	100	0	103	85	115				
Lead	98.8	0.100	100	0	98.8	85	115				

Sample ID: 20011182-01AMS	SampType: MS	TestCode: ICPMS_200.8	Units: µg/L	Prep Date: 2/3/2020	RunNo: 7402						
Client ID: BatchQC	Batch ID: 3024	TestNo: E200.8	E200.8	Analysis Date: 2/4/2020	SeqNo: 134875						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	114	0.500	100	14.9	99.4	70	130				
Lead	125	0.100	100	27.1	97.4	70	130				

Sample ID: <b>20011182-01AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>2/3/2020</b>	RunNo: <b>7402</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>3024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>2/4/2020</b>	SeqNo: <b>134876</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	115	0.500	100	14.9	99.8	70	130	114	0.342	20	

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode	H	Holding times for preparation or analysis exceed
	MI	Recovery outside control limits due to Matrix Interference	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit				

Original



Neilson Research Corporation  
245 S Grape St  
Medford, OR 97501  
TEL: (541) 770-5678 FAX: (541) 770-2901  
Website: www.nrclabs.com

## QC SUMMARY REPORT

WO#: 20011180  
10-Feb-20

**Client:** Coleman Creek Consulting  
**Project:** 19-104G ECS

**TestCode:** ICPMS\_200.8\_DW

Sample ID: <b>20011182-01AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>2/3/2020</b>	RunNo: <b>7402</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>3024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>2/4/2020</b>	SeqNo: <b>134876</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	124	0.100	100	27.1	96.9	70	130	125	0.373	20	

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode	H	Holding times for preparation or analysis exceed
	MI	Recovery outside control limits due to Matrix Interference	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit				

Original





- 
- B Analyte detected in the associated method blank.
  - BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
  - C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
  - C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
  - CF Results confirmed by re-analysis.
  - CU Cleanup performed as specified by method.
  - D1 The diesel elution pattern for the sample is not typical.
  - D2 The sample appears to be a heavier hydrocarbon range than diesel.
  - D3 The sample appears to be a lighter hydrocarbon range than diesel.
  - D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
  - D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
  - E Estimated value.
  - ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
  - FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
  - G1 The gasoline elution pattern for the sample is not typical.
  - G2 The sample appears to be a heavier hydrocarbon range than gasoline.
  - G3 The sample appears to be a lighter hydrocarbon range than gasoline.
  - G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
  - HP Sample re-analysis performed outside of method specified holding time.
  - HR Sample received outside of method specified holding time.
  - HS Sample analyzed for volatile organics contained headspace.
  - HT ☐ At the client's request, the sample was analyzed outside of method specified holding time.
  - H Analysis performed outside of method specified holding time.
  - J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
  - L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
  - MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
  - N See Case Narrative on page 2 of report.
  - NLR No Legionella Recovered.
  - PLR Presence of Legionella Recovered.
  - Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
  - R Relative percent difference (RPD) is outside of the accepted recovery limits.
  - R1 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
  - R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
  - R4 Duplicate analysis failed due to result being at or near the method reporting limit.
  - S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
  - S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
  - SC Sub-contracted to another laboratory for analysis.
  - SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
  - # Value exceeds regulatory level for TCLP contaminant.
  - X1 The motor oil elution pattern for the sample is not typical.
  - X2 The sample appears to be a heavier hydrocarbon range than motor oil.
  - X3 The sample appears to be a lighter hydrocarbon range than motor oil.
  - \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.