

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**

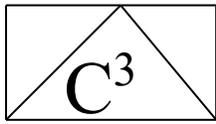
Guidelines for sampling lead in water were established by the Oregon Health Authority. Water sampling is to occur after water sits overnight in the pipes without being used, and must be sampled after a day occupied by students or building occupants. All water sources are to be sampled, with the exception 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.

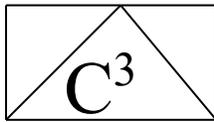
## **CONCLUSIONS**

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



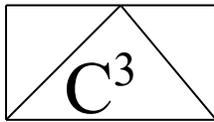
# Coleman Creek Consulting, Inc.

## 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



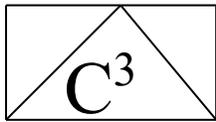
# Coleman Creek Consulting, Inc.

## 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



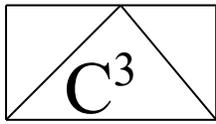
# Coleman Creek Consulting, Inc.

## 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



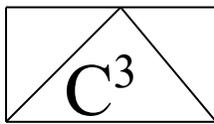
# Coleman Creek Consulting, Inc.

## 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

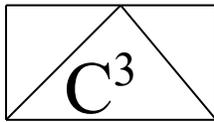
DISTRICT NAME: Southern Oregon Education Service District  
 DISTRICT ID#: 2025  
 SCHOOL NAME: Early Childhood Services  
 BUILDING NAME: ECS Main Building  
 BUILDING ID#: 20250008

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)

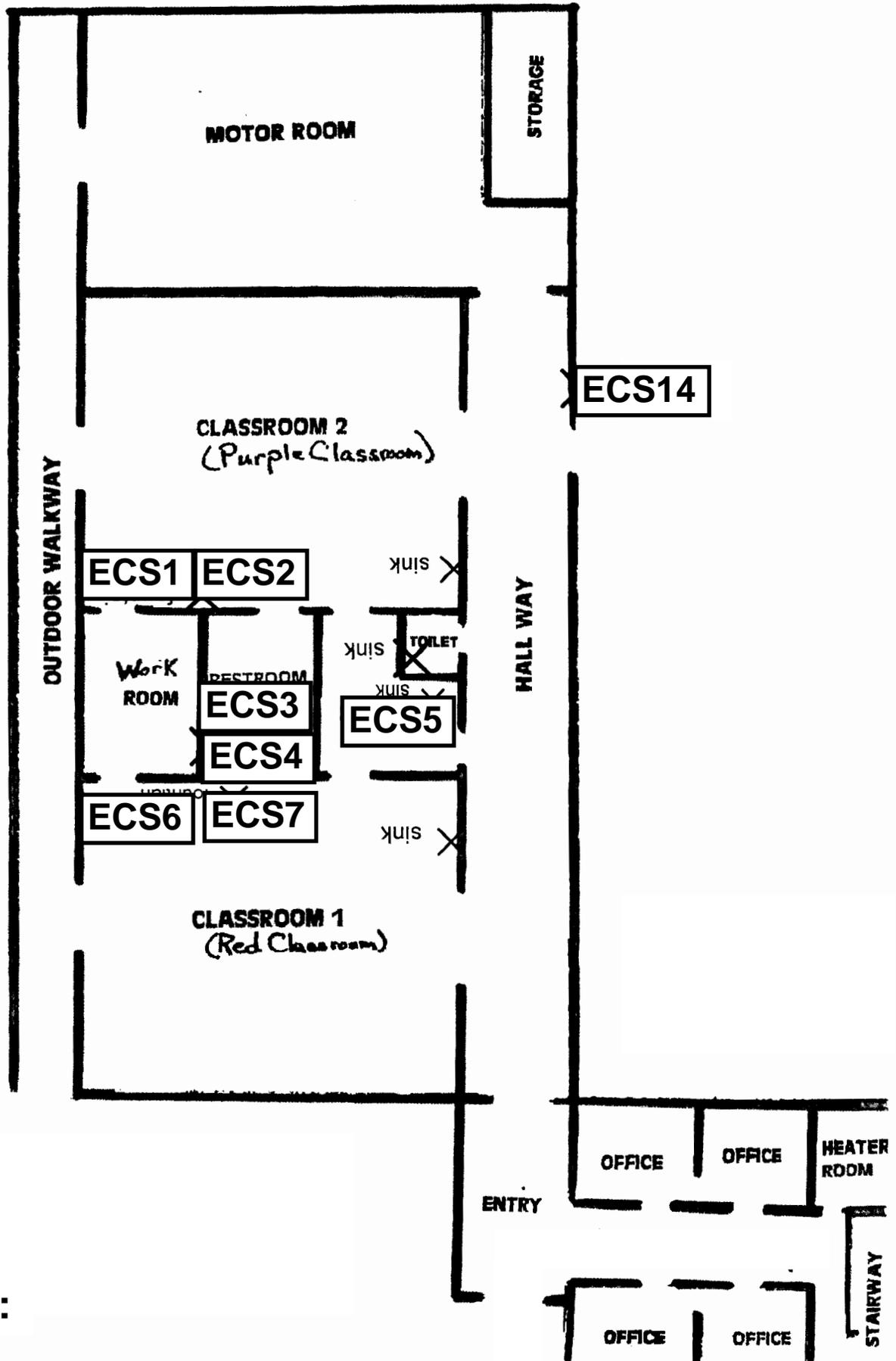
\*\*Indicates fixture permanently deleted from service.

**APPENDIX A**

**DRINKING WATER SAMPLE LOCATION  
DIAGRAM**

# DRINKING WATER SAMPLE LOCATION DIAGRAM

ECS Classroom Building - 1021 NW Highland, Grants Pass

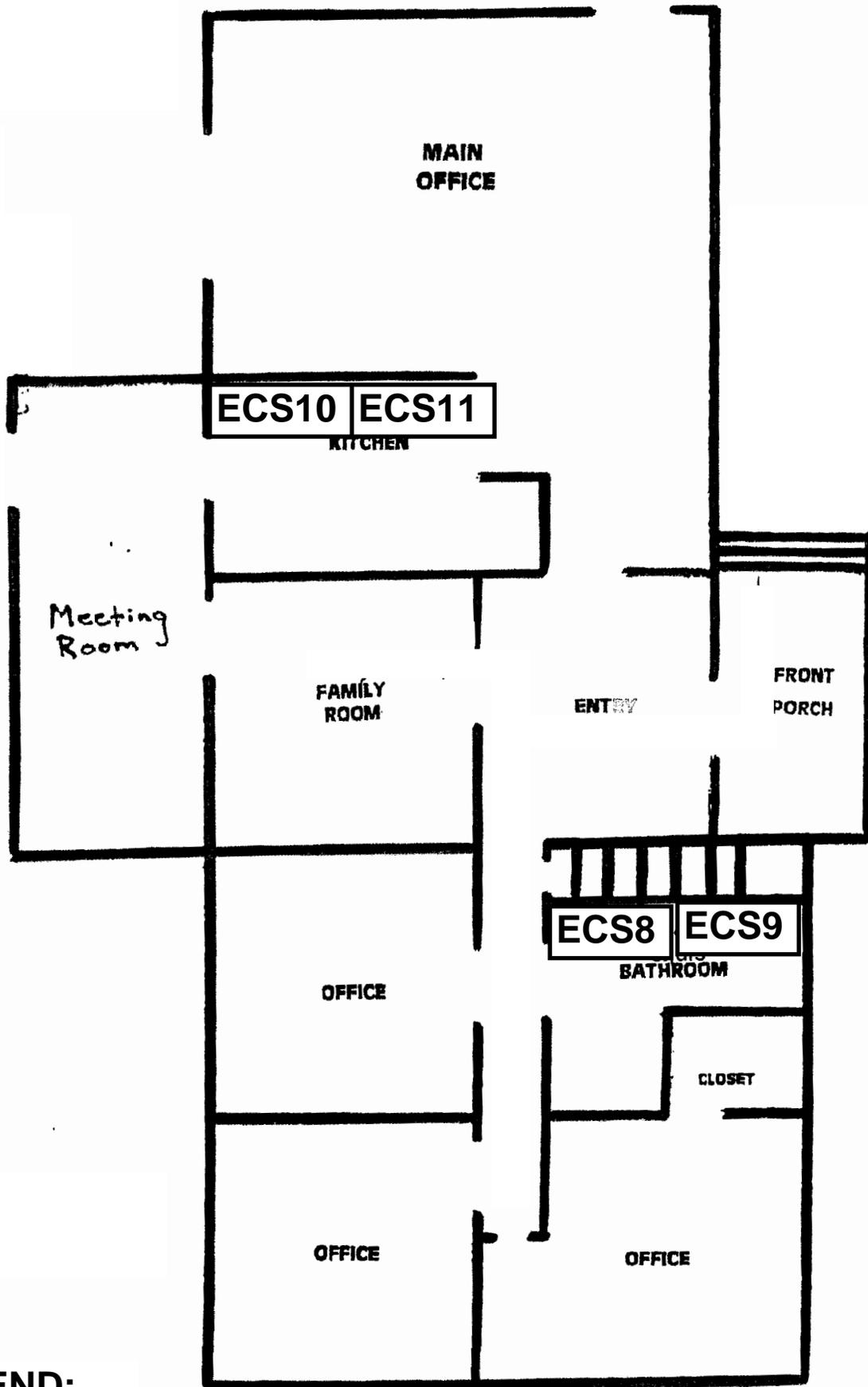


## LEGEND:

**ECS3** = Drinking Water Sample Location

# DRINKING WATER SAMPLE LOCATION DIAGRAM

ECS Upstairs Building - 1021 NW Highland, Grants Pass

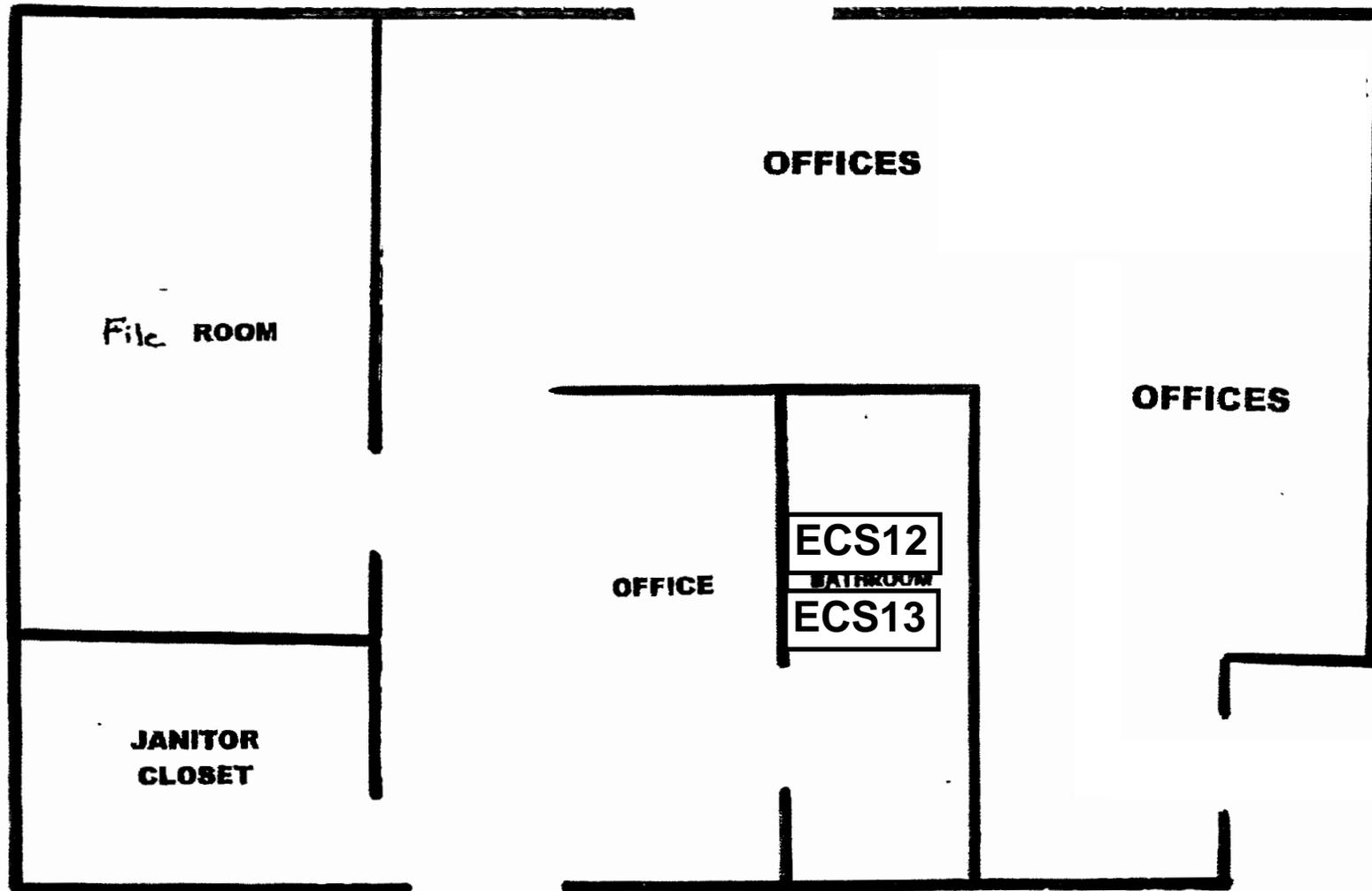


## LEGEND:

**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

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

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**CLIENT:** Coleman Creek Consulting

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

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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	

<b>QUALIFIERS</b>	* 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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# 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	

- |                   |  |  |
|-------------------|--|--|
| <b>QUALIFIERS</b> | * 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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 245 S Grape St  
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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	

- |                   |  |  |
|-------------------|--|--|
| <b>QUALIFIERS</b> | * 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:** 19100307-10      Client Sample ID: 19-104G.ECS10  
 Collection Date: 10/5/2019 8:08:00 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	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      Client Sample ID: 19-104G.ECS11  
 Collection Date: 10/5/2019 8:09:00 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	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      Client Sample ID: 19-104G.ECS12  
 Collection Date: 10/5/2019 8:15:00 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	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	

- |                   |  |  |
|-------------------|--|--|
| <b>QUALIFIERS</b> | * 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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 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	

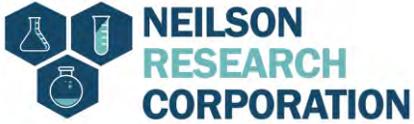
**Lab ID:** 19100307-14      Client Sample ID: 19-104G.ECS14  
 Collection Date: 10/5/2019 8:21:00 AM      Collected By: Dave Fawcett  
 Matrix: Drinking Water      Sample Location: Grab

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	

<b>QUALIFIERS</b>	* 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: <b>19100307-11AMS</b>	SampType: <b>MS</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>19-104G.ECS11</b>	Batch ID: <b>2024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91274</b>						
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: <b>19100307-11AMSD</b>	SampType: <b>MSD</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>19-104G.ECS11</b>	Batch ID: <b>2024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91275</b>						
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



Neilson Research Corporation  
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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: <b>19100307-11AMSD</b>	SampType: <b>MSD</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>19-104G.ECS11</b>	Batch ID: <b>2024</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91275</b>						
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: <b>MB-2037</b>	SampType: <b>MBLK</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>10/9/2019</b>	RunNo: <b>4738</b>						
Client ID: <b>PBW</b>	Batch ID: <b>2037</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91888</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-2037</b>	SampType: <b>LCS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>10/9/2019</b>	RunNo: <b>4738</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>2037</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91888</b>						
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: <b>19100322-03AMS</b>	SampType: <b>MS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>10/9/2019</b>	RunNo: <b>4738</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>2037</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91908</b>						
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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 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

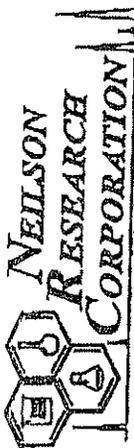
Sample ID: <b>19100322-03AMS</b>	SampType: <b>MS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>10/9/2019</b>	RunNo: <b>4738</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>2037</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91908</b>						
Analyte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

Sample ID: <b>19100322-03AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>µg/L</b>	Prep Date: <b>10/9/2019</b>	RunNo: <b>4738</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>2037</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>10/9/2019</b>	SeqNo: <b>91909</b>						
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.	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	ND Not Detected at the Reporting Limit	PL Permit Limit
RL Reporting Detection Limit		

Original



Environmental Testing Laboratory  
245 South Craps Street \* Medford, OR 97501  
(541) 770-5678 fax (541) 770-2901

# Chain of Custody Record

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

**Section A**  
**Required Client Information**  
 Company: Coleman Creek Consulting  
 Address: 810 Leonard St  
Ashland, OR 97520  
 Email: fawbro@ccounlty.net  
 Phone: (541) 535-7108 Fax (541) 535-8795  
 Collected By (Print): Dave Fawcett  
 Collected By (Sign): [Signature]  
 Email Report  Yes  No Mail Report  Yes  No  
 Fax Report  Yes  No

**Section B**  
**Required Project Information**  
 Project Name: GP ECS  
 Project Number: 19-1046  
 Report To: Dave Fawcett  
 Copy To:

**Section C**  
**Invoice Information**  
 Attention:  
 Company Name:  
 Address:  
 P.O. #

**Section D**  
**Rush Status (Subject to Scheduling)**  
 Standard 10-14 Days  
 5 Business Days (50% surcharge)  
 3 Business Days (75% surcharge)  
 24 - 48 hours (100% surcharge)  
 Other \_\_\_\_\_  
 Authorized Yes  No

**Section E**  
**Sample Information**

Pa	Sample ID	Comp/Grab	Matrix	Date Collected	Time Collected	No. of Containers	Analysis Requested
10-1046	ECS1	Grab	DW	10-5-19	0751	1	
	ECS2				0752	1	
	ECS3				0754	1	
	ECS4				0757	1	
	ECS5				0757	1	
	ECS6				0800	1	
	ECS7				0801	1	
	ECS8				0805	1	
	ECS9				0806	1	
	ECS10				0808	1	

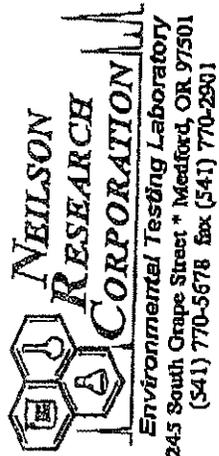
**Section F**  
 Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil W/F - Wipe OT - Other

**Section G**  
**Lab Use Only**  
 Temp: AMP  
 4°C HF 2°C: Yes  No   
 Received on: Yes  No   
 Number of Batches Received: 1  
 pH Checked: Yes  No   
 SOC Seals (Incl): Yes  No   
 Field Blank (Incl): Yes  No   
 UFS:  Other:   
 Payment:  Invoice  Cash  VISA  MC  Check  Amoybit

**Section F**  
**Refrinquisitu/Receive**  
 Refinquisitu/Receive By: [Signature]  
 Received By: David W Fawcett Date: 10-7-19 Time: 1117  
 Refinquisitu/Receive By: [Signature]  
 Received By: MURRAY BUSH Date: 10/7/19 Time: 1117  
 Refinquisitu/Receive By: [Signature]  
 Received By: [Signature]

# Chain of Custody Record

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



**Section A**  
 Required Client Information  
 Company: Coleman Creek Consulting  
 Address: 810 Leonard St  
Ashland, OR 97520  
 Email: fawbro@ccountry.net  
 Phone: (541) 535-7108 Fax (541) 535-9785  
 Collected By (Print): David Fawcett  
 Collected By (Sign): [Signature]  
 Email Report  Yes  No Mail Report  Yes  No  
 Fax Report  Yes  No

**Section B**  
 Required Project Information  
 Project Name: GP-ECS  
 Project Number: 19-1046  
 Report To:  
 Copy To:

**Section C**  
 Invoice Information  
 Attention:  
 Company Name:  
 Address:  
 P.O. #

**Section D**  
 Rush Status (Subject to Scheduling)  
 Standard 10-14 Days  
 5 Business Days (50% surcharge)  
 3 Business Days (75% surcharge)  
 24 - 48 hours (100% surcharge)  
 Other \_\_\_\_\_  
 Authorized  Yes  No

Analysis Requested

No. of Containers	Analysis Requested
3	W/C
1	X
1	X
1	X
1	X

**Section E**  
 Sample Information

Sample ID	Comp/Grab	Matrix	Date Collected	Time Collected	NRC Worksheet # (Lab Use Only)	Remarks/Field Data	NRC Sample # (Lab Use Only)
19-1046-1	Grab	WW	10-5-19	0809	19100307		
ECS 12	↓	↓	↓	0815			11A
ECS 13	↓	↓	↓	0817			12A
ECS 14	↓	↓	↓	0821			13A

**Section F**  
 Requisition/Receive  
 Requisitioned By: [Signature] Sign  
 Received By: [Signature]  
 Requisitioned By:  
 Received By:  
 Requisitioned By:  
 Received By Laboratory: [Signature]

**Section G**  
 Lab Use Only  
 Temp: 6.1 C/W  
 # of 20°C:  Yes  No  
 Received on Ice:  Yes  No  
 Number of Bottles Received: 1  
 pH Checked:  Yes  No  
 GPC Seals Intact:  Yes  No  
 Field Blank Intact:  Yes  No  
 UPS:  FedEX  Other  Hand  
 Payment:  Invoice  Cash  VISA  MC  Check  Other

**Section H**  
 Date: 10-7-19 Time: 1118  
 Print: David Fawcett  
INCLUSIVE PUSH 10/7/19 1118

- 
- 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.



Neilson Research Corporation  
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Medford, OR 97501  
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Website: 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



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



Neilson Research Corporation  
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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	

<b>QUALIFIERS</b>	* 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#: 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: <b>19110578-05AMS</b>	SampType: <b>MS</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>BatchQC</b>	Batch ID: <b>2429</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>11/20/2019</b>	SeqNo: <b>109511</b>						
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: <b>19110578-05AMSD</b>	SampType: <b>MSD</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>BatchQC</b>	Batch ID: <b>2429</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>11/20/2019</b>	SeqNo: <b>109514</b>						
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



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#: 19110671  
 25-Nov-19

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

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

Sample ID: <b>19110578-05AMSD</b>	SampType: <b>MSD</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>BatchQC</b>	Batch ID: <b>2429</b>	TestNo: <b>E200.8</b>	<b>E200.8</b>	Analysis Date: <b>11/20/2019</b>	SeqNo: <b>109514</b>						
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 exceeded
MI Recovery outside control limits due to Matrix Interference	ND Not Detected at the Reporting Limit	PL Permit Limit
RL Reporting Detection Limit		

Original

# Chain of Custody Record

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: ECS - ESD	Attention:	<input checked="" type="checkbox"/> Standard 10-14 Days
Address: 810 Leonard St Ashland, OR 97520	Project Number: 19-104G	Company Name:	<input type="checkbox"/> 5 Business Days (50% surcharge)
Email: fawbro@ccountry.net	Report To:	Address:	<input type="checkbox"/> 3 Business Days (75% surcharge)
Phone: (541) 535-7108 Fax: (541) 535-8795	Copy To:	P.O. #	<input type="checkbox"/> 24 - 48 hours (100% surcharge)
Collected By (Print): David Fawcett			<input type="checkbox"/> Other _____
Collected By (Sign): <i>[Signature]</i>			Authorized <input type="checkbox"/> Yes <input type="checkbox"/> No
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

Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	Analysis Requested										Remarks/Field Data	NRC Sample # (Lab Use Only)
19-104G, ECS 15	Grab	DW	11-16-19	0853	1												
ECS 16	Grab	DW	11-16-19	0854	1												

\*Matrix: DW - Drinking Water WW - Wastewater W - Water S - Soil/Solid SL - Sludge O - Oil WP - Wipe OT - Other

Section F Relinquish/Receive	Sign	Print	Date	Time
Relinquished By: <i>[Signature]</i>		David W. Fawcett	11-18-19	0921
Received By:				
Relinquished By:				
Received By:				
Relinquished By:				
Received By Laboratory: <i>[Signature]</i>		MICHAEL BUSH	11/18/19	921

Section G Lab Use Only
Temp: <i>[Signature]</i>
4°C +/- 2°C: <input type="checkbox"/> Yes <input type="checkbox"/> No
Received on Ice: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Number of Bottles Received: 2
pH Checked:
COC Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Field Blank Included: <input type="checkbox"/> Yes <input type="checkbox"/> No

Received Via  UPS  FedEx  Other  Hand  
 Payment:  Invoice  Cash  VISA, M/C  Check # \_\_\_\_\_ Amount: \_\_\_\_\_

- 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.



Neilson Research Corporation  
245 S Grape St  
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Website: 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



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245 S Grape St  
Medford, OR 97501  
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Website: www.nrclabs.com

## Case Narrative

WO#: 19120414  
Date: 12/16/2019

---

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

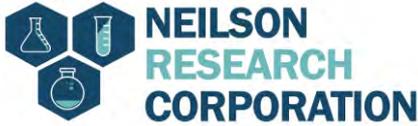
---

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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# 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      Client Sample ID: 19-104G- ECS 17  
 Collection Date: 12/9/2019 8:07:00 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	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      Client Sample ID: 19-104G- ECS 18  
 Collection Date: 12/9/2019 8:08:00 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	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      Client Sample ID: 19-104G- ECS 19  
 Collection Date: 12/9/2019 8:10:00 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	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	

<b>QUALIFIERS</b>	* 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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 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:** 19120414-04      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

<b>QUALIFIERS</b>	* 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
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**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 exceeded
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#: 19120414  
 16-Dec-19

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

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

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
Lead	102	0.100	100	0.328	101	70	130	102	0.0934	20	

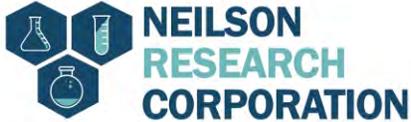
**Qualifiers:**

* 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



- 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.



Neilson Research Corporation  
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Website: www.nrclabs.com

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



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



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#: 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:

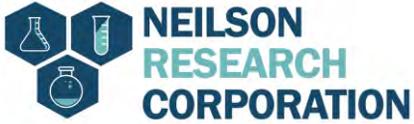
**Lab ID:** 20011180-01      Client Sample ID: 19-104G ECS 21  
 Collection Date: 1/31/2020 6:30:00 AM      Collected By: David  
 Matrix: Drinking Water      Sample Location: Grab

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

<b>QUALIFIERS</b>	* 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  
 245 S Grape St  
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# 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: <b>20011182-01AMS</b>	SampType: <b>MS</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>134875</b>						
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	
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**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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# 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	

**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



- 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.