



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1706537 **Amended:** 06/19/2017

Report Created for: Patrick Roddie

1935 Franklin Street #603
San Francisco, CA 94109

Project Contact: Patrick Roddie

Project P.O.:

Project Name: Chiloquin Rain 5/30/17; Chiloquin, OR

Project Received: 06/12/2017

Analytical Report reviewed & approved for release on 06/15/2017 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Patrick Roddie
Project: Chiloquin Rain 5/30/17; Chiloquin, OR
WorkOrder: 1706537

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

J Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.



Glossary of Terms & Qualifier Definitions

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Quality Control Qualifiers

F13 Indigenous sample results too high for a representative matrix spike analysis.



Analytical Report

Client: Patrick Roddie
Date Received: 6/12/17 10:40
Date Prepared: 6/12/17
Project: Chiloquin Rain 5/30/17; Chiloquin, OR

WorkOrder: 1706537
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
Chiloquin, OR	1706537-001A	Water	05/30/2017 10:00	ICP-MS3	140297	
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	33	J	14	50	1	06/14/2017 01:10
Barium	2.2	J	1.1	5.0	1	06/14/2017 01:10
Iron	29		4.4	20	1	06/14/2017 01:10
Strontium	2.8	J	2.3	20	1	06/14/2017 01:10
Titanium	1.5		0.13	0.50	1	06/14/2017 01:10
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
Terbium	101			70-130		06/14/2017 01:10
<u>Analyst(s):</u>	ND					



Quality Control Report

Client:	Patrick Roddie	WorkOrder:	1706537
Date Prepared:	6/12/17	BatchID:	140297
Date Analyzed:	6/13/17	Extraction Method:	E200.8
Instrument:	ICP-MS3	Analytical Method:	E200.8
Matrix:	Water	Unit:	µg/L
Project:	Chiloquin Rain 5/30/17; Chiloquin, OR	Sample ID:	MB/LCS-140297 1706542-002BMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aluminum	ND	469	14	50	500	-	94	85-115
Barium	ND	466	1.1	5.0	500	-	93	85-115
Iron	6.783,J	4570	4.4	20	5000	-	91	85-115
Strontium	ND	459	2.3	20	500	-	92	85-115
Titanium	0.158,J	45.9	0.13	0.50	50	-	92	85-115
Surrogate Recovery								
Terbium	762.5	764			750	102	102	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aluminum	466	476	500	ND<1000	93	95	75-125	2.08	20
Barium	592	602	500	ND<100	103	105	75-125	1.78	20
Iron	5730	5820	5000	690	101	103	75-125	1.45	20
Strontium	14,800	14,900	500	14,000	192,F13	210,F13	75-125	0.619	20
Titanium	55.3	56.6	50	ND<10	111	113	75-125	2.39	20
Surrogate Recovery									
Terbium	784	793	750		105	106	70-130	1.14	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Aluminum	ND<5000	ND<1000	-	-
Barium	ND<500	ND<100	-	-
Iron	ND<2000	690	-	-
Strontium	14,200	14,000	1.43	20
Titanium	ND<50	ND<10	-	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1706537

ClientCode: PRSF

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Patrick Roddie
 Patrick Roddie
 1935 Franklin Street #603
 San Francisco, CA 94109
 415 336-4728 FAX:

Email: patrick@webbery.com
 cc/3rd Party:
 PO:
 ProjectNo: Chiloquin Rain 5/30/17; Chiloquin, OR

Bill to:
 Accounts Payable
 Patrick Roddie
 1935 Franklin Street #603
 San Francisco, CA 94109

Requested TAT: 5 days;

Date Received: 06/12/2017
Date Logged: 06/12/2017

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1706537-001	Chiloquin, OR	Water	5/30/2017 10:00	<input type="checkbox"/>	A												

Test Legend:

1	METALSMS_TTLC_W	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Kena Ponce

Comments: Credit card on file..ok to run automatically..please have accounting process payment prior to sending results.thks

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: PATRICK RODDIE
Client Contact: Patrick Roddie
Contact's Email: patrick@webbery.com

Project: Chiloquin Rain 5/30/17; Chiloquin, OR


Work Order: 1706537
QC Level: LEVEL 2
Date Logged: 6/12/2017

Comments: Credit card on file..ok to run automatically..please have accounting process payment prior to sending results.thks

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1706537-001A	Chiloquin, OR	Water	E200.8 (Metals) <Aluminum, Barium, Iron, Strontium, Titanium>	1	250mL HDPE, unprsv.	<input type="checkbox"/>	5/30/2017 10:00	5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



McCAMPBELL ANALYTICAL, INC.
 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
 Telephone: (877) 252-9262 / Fax: (925) 252-9269
 www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD							
Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD	<input checked="" type="checkbox"/>	Quote #		
J-Flag / MDL	ESL	Cleanup Approved			Bottle Order #		
Delivery Format: PDF	<input checked="" type="checkbox"/>	GeoTracker EDF	EDD	Write On (DW)	EQuIS		

Report To: **Patrick Roddie** Bill To: **same - card on file**

Company:
 Email: **patrick@webbery.com**

Alt Email: Tele: **415-336-4728**

Project Name: **Chiloquin rain 5-30-17** Project #:
 Project Location: **Chiloquin, OR** PO #

Sampler Signature: *[Signature]*

Analysis Requested

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	ETEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664/9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664/9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/608/8081 (CI Pesticides)	EPA 608/8082 PCB's; Aroclors only	EPA 524.2/624/8260 (VOCs)	EPA 525.2/625/8270 (SVOCs)	EPA 8270 SIM/8310 (PAHs/PNAAs)	CAM 17 Metals (200.8/6020)*	Metals (200.8/6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	AL Ba Sr Ti Fe	
	Date	Time																				
Chiloquin, OR	5-30-17	10 AM	1	O	5																	

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<i>PATRICK RODDIE</i>	6-9-17	4pm	<i>USPS</i>		
<i>USPS</i>			<i>[Signature]</i>	6/12/17	10:40

Comments / Instructions

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None Temp 204 °C Initials _____



Sample Receipt Checklist

Client Name:	Patrick Roddie	Date and Time Received:	6/12/2017 10:40
Project Name:	Chiloquin Rain 5/30/17; Chiloquin, OR	Date Logged:	6/12/2017
WorkOrder No:	1706537	Matrix:	<u>Water</u>
Carrier:	<u>USPS</u>	Received by:	Kena Ponce
		Logged by:	Kena Ponce

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample/Temp Blank temperature	Temp: 20.4°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

 Comments: