



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1612968

Report Created for: Patrick Roddie

1935 Franklin Street #603
San Francisco, CA 94109

Project Contact: Patrick Roddie

Project P.O.:

Project Name: Chiloquin Snow 12/15/16

Project Received: 12/19/2016

Analytical Report reviewed & approved for release on 12/23/2016 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 Snow 12/15/16
WorkOrder: 1612968

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
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 Report

Client: Patrick Roddie
Date Received: 12/19/16 11:50
Date Prepared: 12/19/16
Project: Chiloquin Snow 12/15/16

WorkOrder: 1612968
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Chiloquin, OR	1612968-001A	Water	12/15/2016 12:00	ICP-MS2	131477

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	50	1	12/21/2016 19:41
Barium	ND	5.0	1	12/21/2016 19:41
Calcium	ND	100	1	12/21/2016 19:41
Iron	ND	20	1	12/21/2016 19:41
Strontium	ND	20	1	12/21/2016 19:41
Titanium	ND	0.50	1	12/21/2016 19:41

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	104	70-130	12/21/2016 19:41

Analyst(s): DVH



Quality Control Report

Client: Patrick Roddie
Date Prepared: 12/19/16
Date Analyzed: 12/19/16 - 12/21/16
Instrument: ICP-MS2, ICP-MS3
Matrix: Water
Project: Chiloquin Snow 12/15/16

WorkOrder: 1612968
BatchID: 131477
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS-131477

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aluminum	ND	528	50	500	-	106	85-115
Barium	ND	524	5.0	500	-	105	85-115
Calcium	ND	5210	100	5000	-	104	85-115
Iron	ND	5180	20	5000	-	104	85-115
Strontium	ND	505	20	500	-	101	85-115
Titanium	ND	53.4	0.50	50	-	107	85-115
Surrogate Recovery							
Terbium	745	782		750	99	104	70-130



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1612968

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 Snow 12/15/16

Bill to:

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

Requested TAT: 5 days;

Date Received: 12/19/2016
Date Logged: 12/19/2016

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	
1612968-001	Chiloquin, OR	Water	12/15/2016 12:00	<input type="checkbox"/>	A												

Test Legend:

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

Prepared by: Alexandra Iniguez

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 Snow 12/15/16

Work Order: 1612968
QC Level: LEVEL 2
Date Logged: 12/19/2016

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
1612968-001A	Chiloquin, OR	Water	E200.8 (Metals) <Aluminum, Barium, Calcium, Iron, Strontium, Titanium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	12/15/2016 12:00	5 days	Trace	<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.



Sample Receipt Checklist

Client Name: **Patrick Roddie**
 Project Name: **Chiloquin Snow 12/15/16**

Date and Time Received: **12/19/2016 11:50**
 Date Logged: **12/19/2016**
 Received by: **Alexandra Iniguez**
 Logged by: **Alexandra Iniguez**

WorkOrder No: **1612968** Matrix: Water
 Carrier: USPS

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

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

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes No NA

Comments: