



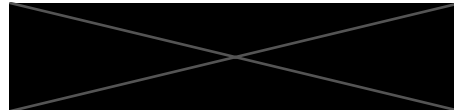
# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

WorkOrder: 2303H85

Report Created for:



Project Contact:



Project P.O.:

Project:

RAIN

Project Received: 03/23/2023

Analytical Report reviewed & approved for release on 03/30/2023 by:

Yen Cao

Project 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 a case narrative.*





## Glossary of Terms & Qualifier Definitions

Client: ██████████

WorkOrder: 2303H85

Project: RAIN

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
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
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit <sup>1</sup>
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	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 <sup>2</sup>
RPD	Relative Percent Difference
RRT	Relative Retention Time
RSD	Relative Standard Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure

<sup>1</sup> MDL is the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. Definition and Procedure for the Determination of the Method Detection Limit, Revision 2, 40CFR, Part 136, Appendix B, EPA 821-R-16-006, December 2016.

<sup>2</sup> RL is the lowest level that can be reliably determined within specified limits of precision and accuracy during routine laboratory operating conditions. (The RL cannot be lower than the lowest calibration standard used in the initial calibration of the instrument and must be greater than the MDL.)



## Glossary of Terms & Qualifier Definitions

**Client:** ██████████

**WorkOrder:** 2303H85

**Project:** RAIN

TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Analytical Report

**Client:** ██████████  
**Date Received:** 03/23/2023 10:02  
**Date Prepared:** 03/24/2023  
**Project:** RAIN

**WorkOrder:** 2303H85  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### Metals

Client ID	Lab ID	Matrix	Date Collected		Instrument	Batch ID
RAIN	2303H85-001A	Water	03/19/2023 06:30		ICP-MS6 169SMPL.d	266294
Analytes	Result		RL	DF		Date Analyzed
Aluminum	720		50	1		03/27/2023 14:47
Antimony	ND		0.50	1		03/27/2023 14:47
Arsenic	ND		0.50	1		03/27/2023 14:47
Barium	16		5.0	1		03/27/2023 14:47
Beryllium	ND		0.50	1		03/27/2023 14:47
Cadmium	ND		0.50	1		03/27/2023 14:47
Chromium	2.9		0.50	1		03/27/2023 14:47
Cobalt	0.69		0.50	1		03/27/2023 14:47
Copper	12		1.5	1		03/27/2023 14:47
Lead	0.68		0.50	1		03/27/2023 14:47
Lithium	ND		2.0	1		03/29/2023 10:36
Mercury	ND		0.050	1		03/27/2023 14:47
Molybdenum	0.59		0.50	1		03/27/2023 14:47
Nickel	2.2		0.50	1		03/27/2023 14:47
Selenium	ND		0.50	1		03/27/2023 14:47
Silver	ND		0.50	1		03/27/2023 14:47
Thallium	ND		0.50	1		03/27/2023 14:47
Thorium	ND		0.50	1		03/27/2023 14:47
Titanium	51		1.0	1		03/27/2023 14:47
Tungsten	ND		0.050	1		03/27/2023 14:47
Uranium	ND		0.50	1		03/27/2023 14:47
Vanadium	3.0		0.50	1		03/27/2023 14:47
Zinc	80		20	1		03/27/2023 14:47

Surrogates	REC (%)	Limits	
Terbium	112	70-130	03/27/2023 14:47

Analyst(s): WV



## Quality Control Report

**Client:** ██████████  
**Date Prepared:** 03/24/2023  
**Date Analyzed:** 03/27/2023  
**Instrument:** ICP-MS6  
**Matrix:** Water  
**Project:** RAIN

**WorkOrder:** 2303H85  
**BatchID:** 266294  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-266294

### QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aluminum	ND	11	50	-	-	-
Antimony	ND	0.13	0.50	-	-	-
Arsenic	ND	0.074	0.50	-	-	-
Barium	ND	0.53	5.0	-	-	-
Beryllium	ND	0.067	0.50	-	-	-
Cadmium	ND	0.043	0.50	-	-	-
Chromium	ND	0.28	0.50	-	-	-
Cobalt	ND	0.043	0.50	-	-	-
Copper	ND	0.75	1.5	-	-	-
Lead	ND	0.19	0.50	-	-	-
Lithium	ND	0.88	2.0	-	-	-
Mercury	ND	0.033	0.050	-	-	-
Molybdenum	ND	0.13	0.50	-	-	-
Nickel	ND	0.33	0.50	-	-	-
Selenium	ND	0.16	0.50	-	-	-
Silver	ND	0.092	0.50	-	-	-
Thallium	ND	0.043	0.50	-	-	-
Thorium	ND	0.20	0.50	-	-	-
Titanium	ND	0.49	1.0	-	-	-
Tungsten	ND	0.034	0.050	-	-	-
Uranium	ND	0.044	0.50	-	-	-
Vanadium	ND	0.092	0.50	-	-	-
Zinc	ND	14	20	-	-	-
<b>Surrogate Recovery</b>						
Terbium	540			500	108	70-130



## Quality Control Report

**Client:** ██████████  
**Date Prepared:** 03/24/2023  
**Date Analyzed:** 03/27/2023  
**Instrument:** ICP-MS6  
**Matrix:** Water  
**Project:** RAIN

**WorkOrder:** 2303H85  
**BatchID:** 266294  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-266294

### QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aluminum	540	530	500	108	106	85-115	1.65	20
Antimony	49	49	50	99	98	85-115	0.975	20
Arsenic	51	51	50	103	102	85-115	0.930	20
Barium	530	520	500	106	104	85-115	2.23	20
Beryllium	54	53	50	108	106	85-115	1.27	20
Cadmium	53	52	50	105	104	85-115	0.996	20
Chromium	52	52	50	104	104	85-115	0.480	20
Cobalt	54	53	50	107	106	85-115	0.954	20
Copper	53	52	50	105	105	85-115	0.255	20
Lead	50	50	50	99	100	85-115	1.02	20
Lithium	54	53	50	108	107	85-115	1.14	20
Mercury	1.2	1.3	1.25	99	101	85-115	1.60	20
Molybdenum	51	51	50	103	102	85-115	1.08	20
Nickel	53	52	50	105	105	85-115	0.599	20
Selenium	54	54	50	108	109	85-115	0.686	20
Silver	54	53	50	107	105	85-115	1.81	20
Thallium	52	52	50	104	104	85-115	0.173	20
Thorium	53	53	50	106	106	85-115	0.0152	20
Titanium	53	51	50	105	102	85-115	2.71	20
Tungsten	5.1	5.0	5	103	100	85-115	2.56	20
Uranium	53	53	50	106	105	85-115	0.497	20
Vanadium	52	52	50	103	103	85-115	0.333	20
Zinc	530	530	500	106	106	85-115	0.255	20
<b>Surrogate Recovery</b>								
Terbium	530	540	500	107	108	70-130	0.715	20



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 2303H85

ClientCode: KSSC

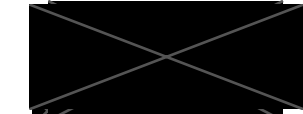
QuoteID: 232900

WaterTrax     CLIP     EDF

EQUIS     Dry-Weight     Email     HardCopy     ThirdParty     J-flag

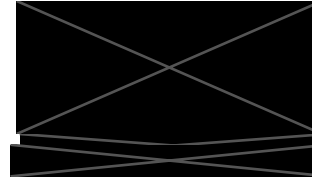
Detection Summary     Excel

Report to:



Email:   
cc/3rd Party:  
PO:  
Project: RAIN

Bill to:



Requested TAT: 5 days;

Date Received: 03/23/2023

Date Logged: 03/24/2023

FAX:

Lab ID	ClientSampleID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
2303H85-001	RAIN	Water	3/19/2023 06:30	<input type="checkbox"/>	A	A											

Test Legend:

1	METALSMS_TTLC_W
5	
9	

2	PRDisposal Fee
6	
10	

3	
7	
11	

4	
8	
12	

Project Manager: Susan Thompson

Prepared by: Adrianna Cardoza

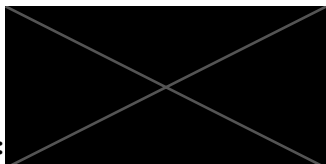
Comments:

NOTE: Soil samples are discarded 60 days after receipt 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:  
Client Contact:  
Contact's Email:



Project: RAIN

Work Order: 2303H85

QC Level: LEVEL 2

Date Logged: 3/24/2023

Comments:

WaterTrax     CLIP     EDF     Excel     EQUIS     Email     HardCopy     ThirdParty     J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001A	RAIN	Water	E200.8 (Metals) <Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Thorium, Titanium, Tungsten, Uranium, Vanadium, Zinc>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3/19/2023 6:30	5 days	3/30/2023	Present	<input type="checkbox"/>	<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).

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- 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.

U\*\* = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.





### Sample Receipt Checklist

Client Name: XXXXXXXXXX  
Project: RAIN

Date and Time Received: 3/23/2023 10:02  
Date Logged: 3/24/2023  
Received by: Adrianna Cardoza  
Logged by: Adrianna Cardoza

WorkOrder No: 2303H85 Matrix: Water  
Carrier: UPS

#### 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
- COC agrees with Quote? Yes  No  NA

#### Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Custody seals intact on sample bottles? 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
- Samples Received on Ice? Yes  No
- Sample/Temp Blank temperature Temp: 19.8°C NA
- ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)? Yes  No  NA
- Sample labels checked for correct preservation? Yes  No
- pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)? Yes  No  NA
- UCMR Samples:
  - pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)? Yes  No  NA
  - Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]? Yes  No  NA

Comments: