



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1804725

Report Created for: Patrick Roddie

1935 Franklin Street #603
San Francisco, CA 94109

Project Contact: Patrick Roddie

Project P.O.:

Project: SF Rain 4-11-18

Project Received: 04/12/2018

Analytical Report reviewed & approved for release on 04/17/2018 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: SF Rain 4-11-18
WorkOrder: 1804725

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

Client: Patrick Roddie
Project: SF Rain 4-11-18
WorkOrder: 1804725

Quality Control Qualifiers

F11 DLT outside control limits. Physical or chemical interferences exist due to sample matrix. Sample results may be estimates.



Analytical Report

Client: Patrick Roddie
Date Received: 4/12/18 15:00
Date Prepared: 4/12/18
Project: SF Rain 4-11-18

WorkOrder: 1804725
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
San Francisco	1804725-001A	Water	04/11/2018 18:30	ICP-MS3 141SMPL.D	156379

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Aluminum	38	J	14	50	1	04/13/2018 22:39
Barium	9.0		1.1	5.0	1	04/13/2018 22:39
Iron	52		4.4	20	1	04/13/2018 22:39
Titanium	3.6		0.13	0.50	1	04/13/2018 22:39

Surrogates	REC (%)	Limits
Terbium	97	70-130

Analyst(s): ND



Analytical Report

Client: Patrick Roddie
Date Received: 4/12/18 15:00
Date Prepared: 4/12/18
Project: SF Rain 4-11-18

WorkOrder: 1804725
Extraction Method: E200.7
Analytical Method: E200.7
Unit: µg/L

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
San Francisco	1804725-001A	Water	04/11/2018 18:30	ICP-OES 8	156380

<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Sulfur	1300	100	100	1	04/16/2018 13:22

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
Terbium	104	70-130	04/16/2018 13:22

Analyst(s): DB



Quality Control Report

Client: Patrick Roddie
Date Prepared: 4/12/18
Date Analyzed: 4/12/18
Instrument: ICP-MS2
Matrix: Water
Project: SF Rain 4-11-18

WorkOrder: 1804725
BatchID: 156379
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS-156379
 1804488-002AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aluminum	ND	482	14	50	500	-	96	85-115
Barium	ND	484	1.1	5.0	500	-	97	85-115
Iron	ND	5280	4.4	20	5000	-	106	85-115
Titanium	ND	46.6	0.13	0.50	50	-	93	85-115

Surrogate Recovery

Terbium	765	729			750	102	97	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aluminum	860	836	500	360	99	95	75-125	2.82	20
Barium	729	711	500	189.0	108	104	75-125	2.50	20
Iron	5800	5800	5000	541.5	105	105	75-125	0	20
Titanium	61.9	60.8	50	13	98	96	75-125	1.74	20

Surrogate Recovery

Terbium	801	776	750		107	104	70-130	3.12	20
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Analyte	DLT Result	DLTRef Val	%D	%D Limit
Aluminum	379	360	5.28	-
Barium	183	189.0	3.17	20
Iron	524	541.5	3.23	20
Titanium	21.8	13	67.7,F11	20

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



Quality Control Report

Client: Patrick Roddie
Date Prepared: 4/12/18
Date Analyzed: 4/13/18
Instrument: ICP-OES
Matrix: Water
Project: SF Rain 4-11-18

WorkOrder: 1804725
BatchID: 156380
Extraction Method: E200.7
Analytical Method: E200.7
Unit: µg/L
Sample ID: MB/LCS-156380
 1804488-002AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Sulfur	ND	10,100	100	100	10000	-	101	85-115
Surrogate Recovery								
Terbium	776	781			750	103	104	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Sulfur	21,800	21,400	10000	11,000	107	102	70-130	1.89	20
Surrogate Recovery									
Terbium	774	764	750		103	102	70-130	1.21	20



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

WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1804725

ClientCode: PRSF

Excel EQulS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:

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

Email: patrick@stopsprayingus.com
cc/3rd Party:
PO:
Project: SF Rain 4-11-18

Bill to:

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

Requested TAT: 5 days;

Date Received: 04/12/2018

Date Logged: 04/12/2018

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	
1804725-001	San Francisco	Water	4/11/2018 18:30	<input type="checkbox"/>	A	A											

Test Legend:

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

Prepared by: Kena Ponce

Comments:

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

Project: SF Rain 4-11-18

Work Order: 1804725

Client Contact: Patrick Roddie

QC Level: LEVEL 2

Contact's Email: patrick@stopsprayingus.com

Comments:

Date Logged: 4/12/2018

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
1804725-001A	San Francisco	Water	E200.8 (Metals) <Aluminum, Barium, Iron, Titanium> E200.7 (Metals) <Sulfur>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	4/11/2018 18:30	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		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 - cc on file**

Analysis Requested

Company:
 Email: patrick@stopsprayingus.com
 Alt Email: Tele: **415-336-4728**
 Project Name: **SF Rain 4-11-18** Project #:
 Project Location: **San Francisco** PO #
 Sampler Signature:

ALBATES

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative
	Date	Time			
San Francisco	4/11	6:30pm	1	O	4

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
	4/12/18	12:04	LAP	4-12-18	1204
LAP	4-12-18	1:500		4/12/18	1500

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 3.5 °C Initials _____



Sample Receipt Checklist

Client Name: **Patrick Roddie**
 Project: **SF Rain 4-11-18**

Date and Time Received: **4/12/2018 15:00**
 Date Logged: **4/12/2018**
 Received by: **Kena Ponce**
 Logged by: **Kena Ponce**

WorkOrder No: **1804725** Matrix: Water
 Carrier: Lorenzo Perez (MAI Courier)

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"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" 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"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

Sample/Temp Blank temperature	Temp: 3.5°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"/>

UCMR Samples:

pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

 Comments: