



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1603575

Report Created for: Patrick Roddie

1935 Franklin Street #603
San Francisco, CA 94109

Project Contact: Patrick Roddie

Project P.O.:

Project Name: 3-10-16 Rain SF

Project Received: 03/11/2016

Analytical Report reviewed & approved for release on 03/16/2016 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: 3-10-16 Rain SF
WorkOrder: 1603575

Glossary Abbreviation

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
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)

Quality Control Qualifiers

F8 MS/MSD recovery and/or RPD was out of acceptance criteria; PDS validated the prep batch. If PDS recovery was out of acceptance criteria, DLT validated the prep batch.



Analytical Report

Client: Patrick Roddie
Date Received: 3/11/16 21:33
Date Prepared: 3/11/16
Project: 3-10-16 Rain SF

WorkOrder: 1603575
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
3-10-16 rain SF	1603575-001A	Water	03/10/2016 11:00	ICP-MS1	117947

Analytes	Result	RL	DF	Date Analyzed
Aluminum	140	50	1	03/14/2016 16:38
Arsenic	ND	0.50	1	03/14/2016 16:38
Barium	16	5.0	1	03/14/2016 16:38
Lithium	ND	5.0	1	03/14/2016 16:38
Strontium	ND	20	1	03/14/2016 16:38

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	104	70-130	03/14/2016 16:38

Analyst(s): AC



Quality Control Report

Client: Patrick Roddie
Date Prepared: 3/11/16
Date Analyzed: 3/14/16
Instrument: ICP-MS1
Matrix: Water
Project: 3-10-16 Rain SF

WorkOrder: 1603575
BatchID: 117947
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS-117947
 1603618-008CMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aluminum	ND	506	50	500	-	101	85-115
Arsenic	ND	51.2	0.50	50	-	102	85-115
Barium	ND	519	5.0	500	-	104	85-115
Lithium	ND	47.0	5.0	50	-	94	85-115
Strontium	ND	517	20	500	-	103	85-115
Surrogate Recovery							
Terbium	707	743		750	94	99	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aluminum	672	635	500	110	112	104	70-130	5.62	20
Arsenic	53.7	53.3	50	ND	107	106	70-130	0.785	20
Barium	556	534	500	5.3	110	106	70-130	4.06	20
Lithium	50.2	47.8	50	ND	100	96	70-130	4.86	20
Strontium	547	527	500	ND	109	105	70-130	3.63	20
Surrogate Recovery									
Terbium	787	756	750		105	101	70-130	4.07	20



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1603575

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: 3-10-16 Rain SF

Bill to:

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

Requested TAT: 5 days;

Date Received: 03/10/2016

Date Logged: 03/11/2016

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	
1603575-001	3-10-16 rain SF	Water	3/10/2016 11:00	<input type="checkbox"/>	A												

Test Legend:

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

Prepared by: Briana Cutino

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

QC Level: LEVEL 2

Work Order: 1603575

Project: 3-10-16 Rain SF

Client Contact: Patrick Roddie

Date Logged: 3/11/2016

Comments:

Contact's Email: patrick@webbery.com

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
1603575-001A	3-10-16 rain SF	Water	E200.8 (Metals) <Aluminum, Arsenic, Barium, Lithium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	3/10/2016 11:00	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.



McC Campbell Analytical, Inc.

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH 1 DAY 2 DAY 3 DAY 5 DAY

GeoTracker EDF PDF EDD Write On (DW) EQuIS 10 DAY

Effluent Sample Requiring "J" flag UST Clean Up Fund Project ; Claim # _____

Report To: Patrick Roddie Bill To: Patrick Roddie

Company:

Tele: () 415-336-4728 E-Mail: patrick@webbery.com

Project #: 3-10-16 rain SF Project Name: 3-10-16 rain SF

Project Location: San Francisco Purchase Order#

Sampler Signature:

Analysis Request

SAMPLE ID	Location/ Field Point Name	SAMPLING		# Containers	MATRIX								METHOD PRESERVED						
		Date	Time		Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	HCL	HNO ₃	Other				
3-10-16 rain SF	SF	3/10/16	11AM	1										X	✓				

BTEX & TPH as Gas (8021/ 8015) MTBE	
TPH as Diesel (8015)	
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	
Total Petroleum Hydrocarbons (418.1)	
EPA 505/ 608 / 8081 (CI Pesticides)	
EPA 608 / 8082 PCB's ; Aroclors only	
EPA 507 / 8141 (NP Pesticides)	
EPA 515 / 8151 (Acidic CI Herbicides)	
EPA 524.2 / 624 / 8260 (VOCs)	
EPA 525.2 / 625 / 8270 (SVOCs)	
EPA 8270 SIM / 8310 (PAHs / PNAS)	
CAM 17 Metals (200.8 / 6020)***	
LUFT 5 Metals (200.8 / 6020)***	
Metals (200.8 / 6020)***	
Lab to Filter sample for Dissolved metals analysis	
ALUMINUM	✓
BARIVM	✓
STRONTIUM	✓
LITHIUM	✓
ARSENIC	✓

**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 is not specified on the chain of custody, then MAI will default to metals by E200.8.

Relinquished By:	Date: 3/10/16	Time: 1130	Received By:
Relinquished By:	Date: 3-10-16	Time: 1130	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° _____
 GOOD CONDITION _____
 HEAD SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 APPROPRIATE CONTAINERS _____
 PRESERVED IN LAB _____

VOAS O&G METALS OTHER HAZARDOUS:
 PRESERVATION _____ pH<2 _____

COMMENTS:



Sample Receipt Checklist

Client Name:	Patrick Roddie	Date and Time Received:	3/10/2016 17:20
Project Name:	3-10-16 Rain SF	Date Logged:	3/11/2016
WorkOrder №:	1603575	Matrix:	<u>Water</u>
Carrier:	<u>Bernie Cummins (MAI Courier)</u>	Received by:	Briana Cutino
		Logged by:	Briana Cutino

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"/>	
Sample/Temp Blank temperature		Temp: 2.1°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 checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

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"/>

* NOTE: If the "No" box is checked, see comments below.

Comments: