



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2105A69

Report Created for: eAnalytics Laboratory
4130 Clydesdale Parkway
Loveland, CO 80538

Project Contact: Morgen Ray
Project P.O.:
Project: Summit Midstream/A-18ESoil

Project Received: 05/20/2021

Analytical Report reviewed & approved for release on 05/21/2021 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: eAnalytics Laboratory
Project: Summit Midstream/A-18ESoil
WorkOrder: 2105A69

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



Analytical Report

Client: eAnalytics Laboratory
Date Received: 05/20/2021 9:20
Date Prepared: 05/20/2021
Project: Summit Midstream/A-18ESoil

WorkOrder: 2105A69
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Arsenic

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #1 Background 2 feet (4116-1)	2105A69-001A	Soil	05/12/2021 16:00	ICP-MS4 230SMPL.d	221868

Analytes	Result	RL	DF	Date Analyzed
Arsenic	14	0.50	1	05/21/2021 00:07

Surrogates	REC (%)	Limits
Terbium	101	70-130

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #2 Background 8 feet (4116-2)	2105A69-002A	Soil	05/12/2021 16:00	ICP-MS4 231SMPL.d	221868

Analytes	Result	RL	DF	Date Analyzed
Arsenic	8.6	0.50	1	05/21/2021 00:11

Surrogates	REC (%)	Limits
Terbium	96	70-130

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #3 North Wall (4116-3)	2105A69-003A	Soil	05/12/2021 16:00	ICP-MS4 234SMPL.d	221868

Analytes	Result	RL	DF	Date Analyzed
Arsenic	11	0.50	1	05/21/2021 00:22

Surrogates	REC (%)	Limits
Terbium	95	70-130

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #4 South Wall (4116-4)	2105A69-004A	Soil	05/12/2021 16:00	ICP-MS4 235SMPL.d	221868

Analytes	Result	RL	DF	Date Analyzed
Arsenic	22	0.50	1	05/21/2021 00:26

Surrogates	REC (%)	Limits
Terbium	89	70-130

Analyst(s): WV

(Cont.)



Analytical Report

Client: eAnalytics Laboratory
Date Received: 05/20/2021 9:20
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Project: Summit Midstream/A-18ESoil

WorkOrder: 2105A69
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

Arsenic

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #5 East Wall (4116-5)	2105A69-005A	Soil	05/12/2021 16:00	ICP-MS4 236SMPL.d	221868

Analytes	Result	RL	DF	Date Analyzed
Arsenic	10	0.50	1	05/21/2021 00:30

Surrogates	REC (%)	Limits
Terbium	99	70-130

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #6 West Wall (4116-6)	2105A69-006A	Soil	05/12/2021 16:00	ICP-MS4 237SMPL.d	221868

Analytes	Result	RL	DF	Date Analyzed
Arsenic	7.5	0.50	1	05/21/2021 00:34

Surrogates	REC (%)	Limits
Terbium	81	70-130

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #7 Floor (4116-7)	2105A69-007A	Soil	05/12/2021 16:00	ICP-MS4 238SMPL.d	221868

Analytes	Result	RL	DF	Date Analyzed
Arsenic	7.2	0.50	1	05/21/2021 00:37

Surrogates	REC (%)	Limits
Terbium	100	70-130

Analyst(s): WV



Quality Control Report

Client: eAnalytics Laboratory

Date Prepared: 05/20/2021

Date Analyzed: 05/20/2021

Instrument: ICP-MS4

Matrix: Soil

Project: Summit Midstream/A-18ESoil

WorkOrder: 2105A69

BatchID: 221868

Extraction Method: SW3050B

Analytical Method: SW6020

Unit: mg/kg

Sample ID: MB/LCS/LCSD-221868

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Arsenic	ND	0.150	0.500	-	-	-
Surrogate Recovery						
Terbium	418			500	84	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Arsenic	47.1	47.5	50	94	95	75-125	0.852	20
Surrogate Recovery								
Terbium	475	481	500	95	96	70-130	1.13	20



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

WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2105A69

ClientCode: EACO

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

Report to:

Morgen Ray
eAnalytics Laboratory
4130 Clydesdale Parkway
Loveland, CO 80538
970-667-6975 FAX:

Email: mray@eanalyticlab.com
cc/3rd Party:
PO:
Project: Summit Midstream/A-18ESoil

Bill to:

Chris Dieken
eAnalytics Laboratory
4130 Clydesdale Parkway
Loveland, CO 80538
cdieken@eanalyticlab.com

Requested TAT: 1 day;

Date Received: 05/20/2021

Date Logged: 05/20/2021

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	
2105A69-001	Sample #1 Background 2 feet (4116-1)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A											
2105A69-002	Sample #2 Background 8 feet (4116-2)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A											
2105A69-003	Sample #3 North Wall (4116-3)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A											
2105A69-004	Sample #4 South Wall (4116-4)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A											
2105A69-005	Sample #5 East Wall (4116-5)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A											
2105A69-006	Sample #6 West Wall (4116-6)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A											
2105A69-007	Sample #7 Floor (4116-7)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A											

Test Legend:

1	ASMS_6020_TTLC_S	2	PRDisposal Fee	3		4	
5		6		7		8	
9		10		11		12	

Project Manager: Rosa Venegas

Prepared by: Tina Perez

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: EANALYTICS LABORATORY

Project: Summit Midstream/A-18ESoil

Work Order: 2105A69

Client Contact: Morgen Ray

QC Level: LEVEL 2

Contact's Email: mray@eanalyticslab.com

Comments

Date Logged: 5/20/2021

WaterTrax WriteOn EDF Excel EQUiS Email HardCopy ThirdParty J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	SubOut
001A	Sample #1 Background 2 feet (4116-1)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
002A	Sample #2 Background 8 feet (4116-2)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
003A	Sample #3 North Wall (4116-3)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
004A	Sample #4 South Wall (4116-4)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
005A	Sample #5 East Wall (4116-5)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
006A	Sample #6 West Wall (4116-6)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
007A	Sample #7 Floor (4116-7)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<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: **eAnalytics Laboratory**
 Project: **Summit Midstream/A-18ESoil**
 WorkOrder No: **2105A69** Matrix: Soil
 Carrier: FedEx

Date and Time Received: **5/20/2021 09:20**
 Date Logged: **5/20/2021**
 Received by: Tina Perez
 Logged by: Tina Perez

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 type="checkbox"/>	No <input checked="" 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 checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input 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: OTHERS)

Sample/Temp Blank temperature	Temp: 5.9°C	NA <input type="checkbox"/>
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	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; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" 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