

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 01, 2019

Heather Shideman

Extraction Oil&Gas

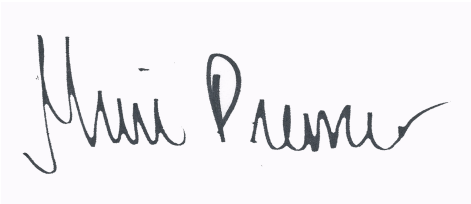
370 17th Street Suite 5300

Denver, CO 80202

RE: Trip_Blank/GWA_Coyote_Trails

Enclosed are the results of analyses for samples received by Summit Scientific on 01/25/19 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is written in a cursive style and reads "Muri Premier".

Muri Premier For Ben Shrewsbury

Laboratory Manager



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Trip_Blank/GWA_Coyote_Trails

Project Number: AFE #17031 Code 961.15

Project Manager: Heather Shideman

Reported:
02/01/19 15:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BW_Front_Range_Landfill_Surface_Water_SW_Trip_Blank	1901326-01	Water	01/25/19 12:32	01/25/19 14:00

Summit Scientific

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1901326

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S₂

741 Corporate Circle, Suite J ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: Extraction Oil and Gas (XOG) Report to: Apex Companies, LLC Project Manager: Heather Shideman
Address: 2234 117th Ave, Ste 106 E-Mail: Rochelle.Carlisle@apexcos.com, Heather.Shideman@apexcos.com
City/State/Zip: Greeley, CO 80634 cc: bford@extractionog.com
Phone: (970) 576-3446 Project Name: Trip_Blank/GWA_Coyote_Trails
Sampler Name: Sosue Sonchy Project No.: AFE # 17031; Code 961.15 Facility ID 757431

ID	Field ID / Point of Collection	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions	
					HCl	HNO ₃	None	Other (Specify)	Surface Water	Soil	Air-Canister #	Other (Specify)	BTEX					
1	BW_Front_Range_Landfill_Surface_Water_SW_Trip_Blank	1/25/17	12:32	1					X				X					Sample Frequency: Q1
Relinquished by: <u>[Signature]</u>		Date/Time: 1/25/17 1400		Received by: <u>[Signature]</u>		Date/Time: 1.25.17 1400		Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours <u>X</u> Standard _____ 48 hours _____										Notes:
Relinquished by:		Date/Time:		Received by:		Date/Time:		Sample Integrity: Temperature Upon Receipt: <u>6.0</u> Intact: <u>Yes</u> No										
Relinquished by:		Date/Time:		Received by:		Date/Time:												

Sample Receipt Checklist

S2 Work Order 1901326

Client: XOG Client Project ID: Trip-Blank/GWA-Coyote-Trails

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other H.D. Airbill #: _____

Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☒ Water ☐ Other: _____
(Describe)

Temp (°C)	6.0
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

UP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

1.25.19 1632
Date/Time



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Reported:
02/01/19 15:10

BW_Front_Range_Landfill_Surface_Water_SW_Trip_Blank
1901326-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/25/19 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1901348	01/29/19	01/31/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **01/25/19 12:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		132 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		112 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		118 %	21-167		"	"	"	"	

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Reported:
02/01/19 15:10

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1901348 - EPA 5030 Water MS

Blank (1901348-BLK1)

Prepared: 01/29/19 Analyzed: 01/31/19

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
m,p-Xylene	ND	2.0	"							
o-Xylene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	15.5		"	13.3		116	23-173			
Surrogate: Toluene-d8	12.8		"	13.3		95.8	20-170			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3		101	21-167			

LCS (1901348-BS1)

Prepared: 01/29/19 Analyzed: 01/31/19

Benzene	26.7	1.0	ug/l	41.7		64.0	51-132			
Toluene	34.0	1.0	"	41.7		81.7	51-138			
Ethylbenzene	38.1	1.0	"	41.7		91.4	58-146			
m,p-Xylene	67.0	2.0	"	83.3		80.4	57-144			
o-Xylene	38.0	1.0	"	41.7		91.3	53-146			
Surrogate: 1,2-Dichloroethane-d4	16.4		"	13.3		123	23-173			
Surrogate: Toluene-d8	13.4		"	13.3		101	20-170			
Surrogate: 4-Bromofluorobenzene	14.7		"	13.3		110	21-167			

Matrix Spike (1901348-MS1)

Source: 1901324-24

Prepared: 01/29/19 Analyzed: 01/31/19

Benzene	45.5	1.0	ug/l	41.7	ND	109	34-141			
Toluene	43.2	1.0	"	41.7	ND	104	27-151			
Ethylbenzene	37.8	1.0	"	41.7	ND	90.8	29-160			
m,p-Xylene	73.4	2.0	"	83.3	ND	88.1	20-166			
o-Xylene	39.6	1.0	"	41.7	ND	94.9	33-159			
Surrogate: 1,2-Dichloroethane-d4	17.0		"	13.3		128	23-173			
Surrogate: Toluene-d8	13.0		"	13.3		97.3	20-170			
Surrogate: 4-Bromofluorobenzene	14.2		"	13.3		106	21-167			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

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Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1901348 - EPA 5030 Water MS

Matrix Spike Dup (1901348-MSD1)	Source: 1901324-24			Prepared: 01/29/19 Analyzed: 01/31/19						
Benzene	45.5	1.0	ug/l	41.7	ND	109	34-141	0.110	32	
Toluene	44.0	1.0	"	41.7	ND	106	27-151	1.99	25	
Ethylbenzene	39.2	1.0	"	41.7	ND	94.2	29-160	3.63	50	
m,p-Xylene	74.6	2.0	"	83.3	ND	89.5	20-166	1.54	36	
o-Xylene	39.9	1.0	"	41.7	ND	95.7	33-159	0.831	26	
Surrogate: 1,2-Dichloroethane-d4	15.4		"	13.3		115	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		99.2	20-170			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.7	21-167			

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Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference