

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 02, 2022

Vince DeCianne

Whiting Oil & Gas

retail

Denver, CO 80215

RE: McLaughlin 94 Closure

Work Order #2204265

Enclosed are the results of analyses for samples received by Summit Scientific on 04/18/22 10:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury

President



Whiting Oil & Gas
retail
Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
20220414_McLaughlin94_AOC@3ft	2204265-01	Soil	04/14/22 10:45	04/18/22 10:40
20220414_McLaughlin94_TP_Comp	2204265-02	Soil	04/14/22 10:55	04/18/22 10:40
20220414_McLaughlin94_TP_Dis	2204265-03	Soil	04/14/22 11:00	04/18/22 10:40

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2204265

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310 ♦ 303-374-5933 (f)

Page: 1 of 1

Client: Whiting Oil & Gas

Project Manager: Vince DeCianne

Address: 707 17th Street, Suite 3000

E-Mail: jveith@kleinfelder.com

City/State/Zip: Denver, CO 80202

kyle.waggoner@whiting.com

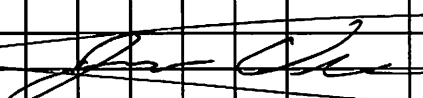
Phone: 970-309-6553

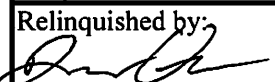

Project Name: McLaughlin 94 Closure

Sampler Name: Jordan Veith

Project Number: 20221740.001A

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested										Special Instructions	
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	COGCC Table 915-1	Arsenic, EC, pH, SAR	EC	SAR	pH	Arsenic	COGCC Table 915-1 MINUS PAHs					
1	20220414_McLughlin 94_AOC@3ft	4/14/2022	10:45	3			X			X				X										
2	20220414_McLughlin 94_TP_COMP	4/14/2022	10:55	3			X			X				X										
3	20220414_McLughlin 94_TP_DIS	4/14/2022	11:00	3			X			X				X										
4																								
5																								
6																								
7																								
8																								
9																								
10																								


 4/14/2022

Relinquished by: 	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check) Same Day 72 hours 24 hours Standard 48 hours Sample Integrity: Temperature Upon Receipt: 0.7 Samples Intact: Yes No	Notes:
Relinquished by:	Date/Time:	Received by: 	Date/Time: 4/15/22 1040		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S₂

Sample Receipt Checklist

S2 Work Order# 2204265

Client: Whiting Client Project ID: McLaughlin 94 Closure

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

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 0.7 Thermometer # Ø2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>On ice.</u>
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 due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<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.				

JB

Custodian Printed Name

4/18/22

Date/Time



Whiting Oil & Gas
retail
Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

20220414_McLaughlin94_AOC@3ft
2204265-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0445	04/21/22	04/22/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0448	04/21/22	04/22/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		78.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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2204265-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0400	04/20/22	04/22/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		60.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		57.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.324	0.0100	mg/L	1	BFD0523	04/25/22	04/30/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**20220414_McLaughlin94_AOC@3ft
2204265-01 (Soil)**

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Total Metals by EPA 6020B

Arsenic	7.81	0.230	mg/kg dry	1	BFD0468	04/21/22	04/30/22	EPA 6020B
Barium	101	0.460	"	"	"	"	"	"
Cadmium	ND	0.230	"	"	"	"	"	"
Copper	11.4	0.460	"	"	"	"	"	"
Lead	15.0	0.230	"	"	"	"	"	"
Nickel	14.3	0.460	"	"	"	"	"	"
Selenium	1.22	0.299	"	"	"	"	"	"
Silver	0.0822	0.0230	"	"	"	"	"	"
Zinc	74.8	0.460	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFD0624	04/28/22	04/28/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	37.5	0.0575	mg/L dry	1	BFD0562	04/26/22	05/02/22	EPA 6020B	
Magnesium	18.3	0.0575	"	"	"	"	"	"	
Sodium	148	0.0575	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.95	0.00100	units	1	BFE0018	05/02/22	05/02/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**20220414_McLaughlin94_AOC@3ft
2204265-01 (Soil)**

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.0	%	1	BFD0527	04/25/22	04/27/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.04	0.0100	mmhos/cm	1	BFD0591	04/27/22	04/27/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/14/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.12		pH Units	1	BFD0589	04/27/22	04/27/22	EPA 9045D	

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Project Manager: Vince DeCianne

Reported:

05/02/22 12:59

20220414_McLaughlin94_TP_Comp
2204265-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0445	04/21/22	04/22/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		98.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0448	04/21/22	04/22/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		72.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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05/02/22 12:59

20220414_McLaughlin94_TP_Comp
2204265-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0400	04/20/22	04/26/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		59.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		58.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.243	0.0100	mg/L	1	BFD0523	04/25/22	04/30/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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20220414_McLaughlin94_TP_Comp
2204265-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.56	0.220	mg/kg dry	1	BFD0468	04/21/22	04/30/22	EPA 6020B
Barium	96.6	0.441	"	"	"	"	"	"
Cadmium	0.230	0.220	"	"	"	"	"	"
Copper	8.50	0.441	"	"	"	"	"	"
Lead	8.88	0.220	"	"	"	"	"	"
Nickel	10.8	0.441	"	"	"	"	"	"
Selenium	0.883	0.286	"	"	"	"	"	"
Silver	0.0532	0.0220	"	"	"	"	"	"
Zinc	43.9	0.441	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFD0624	04/28/22	04/28/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	235	0.0551	mg/L dry	1	BFD0562	04/26/22	05/02/22	EPA 6020B	
Magnesium	96.1	0.0551	"	"	"	"	"	"	
Sodium	218	0.0551	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.03	0.00100	units	1	BFE0018	05/02/22	05/02/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

20220414_McLaughlin94_TP_Comp
2204265-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	90.8	%	1	BFD0527	04/25/22	04/27/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.02	0.0100	mmhos/cm	1	BFD0591	04/27/22	04/27/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/14/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.73		pH Units	1	BFD0589	04/27/22	04/27/22	EPA 9045D	

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Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:

05/02/22 12:59

**20220414_McLaughlin94_TP_Dis
2204265-03 (Soil)**

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0445	04/21/22	04/22/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0448	04/21/22	04/22/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		63.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Whiting Oil & Gas
retail
Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:

05/02/22 12:59

20220414_McLaughlin94_TP_Dis
2204265-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0400	04/20/22	04/26/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		53.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.318	0.0100	mg/L	1	BFD0523	04/25/22	04/30/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Whiting Oil & Gas
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Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:

05/02/22 12:59

**20220414_McLaughlin94_TP_Dis
2204265-03 (Soil)**

Summit Scientific

Total Metals by EPA 6020B

Arsenic	6.68	0.222	mg/kg dry	1	BFD0468	04/21/22	04/30/22	EPA 6020B
Barium	117	0.445	"	"	"	"	"	"
Cadmium	0.315	0.222	"	"	"	"	"	"
Copper	12.0	0.445	"	"	"	"	"	"
Lead	11.7	0.222	"	"	"	"	"	"
Nickel	13.8	0.445	"	"	"	"	"	"
Selenium	1.05	0.289	"	"	"	"	"	"
Silver	0.0722	0.0222	"	"	"	"	"	"
Zinc	53.9	0.445	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFD0624	04/28/22	04/28/22	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	296	0.0556	mg/L dry	1	BFD0562	04/26/22	05/02/22	EPA 6020B	
Magnesium	117	0.0556	"	"	"	"	"	"	
Sodium	307	0.0556	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.82	0.00100	units	1	BFE0018	05/02/22	05/02/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Whiting Oil & Gas
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Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

**20220414_McLaughlin94_TP_Dis
2204265-03 (Soil)**

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	89.9	%	1	BFD0527	04/25/22	04/27/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.16	0.0100	mmhos/cm	1	BFD0591	04/27/22	04/27/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **04/14/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.82		pH Units	1	BFD0589	04/27/22	04/27/22	EPA 9045D	

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Whiting Oil & Gas
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Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:

05/02/22 12:59

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 BFD0445 - EPA 5030 Soil MS

Blank (BFD0445-BLK1)

Prepared: 04/21/22 Analyzed: 04/22/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0414		"	0.0400		103	50-150			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0400		95.7	50-150			

LCS (BFD0445-BS1)

Prepared: 04/21/22 Analyzed: 04/22/22

Benzene	0.0583	0.0020	mg/kg	0.0750		77.7	70-130			
Toluene	0.0611	0.0050	"	0.0750		81.4	70-130			
Ethylbenzene	0.0586	0.0050	"	0.0750		78.2	70-130			
m,p-Xylene	0.123	0.010	"	0.150		81.8	70-130			
o-Xylene	0.0702	0.0050	"	0.0750		93.6	70-130			
1,2,4-Trimethylbenzene	0.0666	0.0050	"	0.0750		88.8	70-130			
1,3,5-Trimethylbenzene	0.0626	0.0050	"	0.0750		83.4	70-130			
Naphthalene	0.0867	0.0038	"	0.0750		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0400		99.8	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	50-150			

Matrix Spike (BFD0445-MS1)

Source: 2204254-01

Prepared: 04/21/22 Analyzed: 04/22/22

Benzene	0.0589	0.0020	mg/kg	0.0750	ND	78.5	70-130			
Toluene	0.0619	0.0050	"	0.0750	ND	82.5	70-130			
Ethylbenzene	0.0568	0.0050	"	0.0750	ND	75.8	70-130			
m,p-Xylene	0.121	0.010	"	0.150	ND	80.4	70-130			
o-Xylene	0.0681	0.0050	"	0.0750	ND	90.8	70-130			
1,2,4-Trimethylbenzene	0.0656	0.0050	"	0.0750	ND	87.5	70-130			
1,3,5-Trimethylbenzene	0.0600	0.0050	"	0.0750	ND	80.0	70-130			
Naphthalene	0.0891	0.0038	"	0.0750	ND	119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0426		"	0.0400		106	50-150			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		101	50-150			

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Whiting Oil & Gas
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Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

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 BFD0445 - EPA 5030 Soil MS

Matrix Spike Dup (BFD0445-MSD1)	Source: 2204254-01			Prepared: 04/21/22 Analyzed: 04/22/22						
Benzene	0.0571	0.0020	mg/kg	0.0750	ND	76.1	70-130	3.16	30	
Toluene	0.0613	0.0050	"	0.0750	ND	81.8	70-130	0.877	30	
Ethylbenzene	0.0576	0.0050	"	0.0750	ND	76.8	70-130	1.31	30	
m,p-Xylene	0.123	0.010	"	0.150	ND	81.8	70-130	1.75	30	
o-Xylene	0.0700	0.0050	"	0.0750	ND	93.4	70-130	2.78	30	
1,2,4-Trimethylbenzene	0.0655	0.0050	"	0.0750	ND	87.4	70-130	0.137	30	
1,3,5-Trimethylbenzene	0.0618	0.0050	"	0.0750	ND	82.4	70-130	2.96	30	
Naphthalene	0.0937	0.0038	"	0.0750	ND	125	70-130	5.09	30	
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	50-150			

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Whiting Oil & Gas
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Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BFD0448 - EPA 3550A

Blank (BFD0448-BLK1)

Prepared: 04/21/22 Analyzed: 04/22/22

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BFD0448-BS1)

Prepared: 04/21/22 Analyzed: 04/22/22

C10-C28 (DRO)	450	50	mg/kg	500	90.0	70-130
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Matrix Spike (BFD0448-MS1)

Source: 2204254-01

Prepared: 04/21/22 Analyzed: 04/22/22

C10-C28 (DRO)	405	50	mg/kg	500	9.41	79.1	70-130
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Matrix Spike Dup (BFD0448-MSD1)

Source: 2204254-01

Prepared: 04/21/22 Analyzed: 04/22/22

C10-C28 (DRO)	388	50	mg/kg	500	9.41	75.8	70-130	4.17	20
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Whiting Oil & Gas
retail
Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A
Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BFD0400 - EPA 5030 Soil MS

Blank (BFD0400-BLK1)

Prepared: 04/20/22 Analyzed: 04/21/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0264		"	0.0333		79.3	40-150			
Surrogate: Fluoranthene-d10	0.0310		"	0.0333		92.9	40-150			

LCS (BFD0400-BS1)

Prepared: 04/20/22 Analyzed: 04/21/22

Acenaphthene	0.0299	0.00500	mg/kg	0.0333		89.6	31-137			
Anthracene	0.0292	0.00500	"	0.0333		87.5	30-120			
Benzo (a) anthracene	0.0299	0.00500	"	0.0333		89.7	30-120			
Benzo (a) pyrene	0.0285	0.00500	"	0.0333		85.5	30-120			
Benzo (b) fluoranthene	0.0309	0.00500	"	0.0333		92.6	30-120			
Benzo (k) fluoranthene	0.0331	0.00500	"	0.0333		99.2	30-120			
Chrysene	0.0304	0.00500	"	0.0333		91.3	30-120			
Dibenz (a,h) anthracene	0.0174	0.00500	"	0.0333		52.1	30-120			
Fluoranthene	0.0307	0.00500	"	0.0333		92.0	30-120			
Fluorene	0.0300	0.00500	"	0.0333		90.0	30-120			
Indeno (1,2,3-cd) pyrene	0.0112	0.00500	"	0.0333		33.7	30-120			
Pyrene	0.0316	0.00500	"	0.0333		94.7	35-142			
1-Methylnaphthalene	0.0310	0.00500	"	0.0333		92.9	35-142			
2-Methylnaphthalene	0.0257	0.00500	"	0.0333		77.2	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0304		"	0.0333		91.3	40-150			
Surrogate: Fluoranthene-d10	0.0324		"	0.0333		97.3	40-150			

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Whiting Oil & Gas
retail
Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A
Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BFD0400 - EPA 5030 Soil MS

Matrix Spike (BFD0400-MS1)

Source: 2204123-02

Prepared: 04/20/22 Analyzed: 04/21/22

Acenaphthene	0.0151	0.00500	mg/kg	0.0333	ND	45.3	31-137		
Anthracene	0.0161	0.00500	"	0.0333	ND	48.4	30-120		
Benzo (a) anthracene	0.0156	0.00500	"	0.0333	ND	46.9	30-120		
Benzo (a) pyrene	0.0140	0.00500	"	0.0333	ND	41.9	30-120		
Benzo (b) fluoranthene	0.0150	0.00500	"	0.0333	ND	44.9	30-120		
Benzo (k) fluoranthene	0.0152	0.00500	"	0.0333	ND	45.5	30-120		
Chrysene	0.0150	0.00500	"	0.0333	ND	45.0	30-120		
Dibenz (a,h) anthracene	0.0184	0.00500	"	0.0333	ND	55.0	30-120		
Fluoranthene	0.0173	0.00500	"	0.0333	ND	51.8	30-120		
Fluorene	0.0157	0.00500	"	0.0333	ND	47.2	30-120		
Indeno (1,2,3-cd) pyrene	0.0191	0.00500	"	0.0333	ND	57.4	30-120		
Pyrene	0.0163	0.00500	"	0.0333	ND	49.0	35-142		
1-Methylnaphthalene	0.0149	0.00500	"	0.0333	ND	44.8	15-130		
2-Methylnaphthalene	0.0133	0.00500	"	0.0333	ND	40.0	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0143		"	0.0333		43.0	40-150		
Surrogate: Fluoranthene-d10	0.0178		"	0.0333		53.5	40-150		

Matrix Spike Dup (BFD0400-MSD1)

Source: 2204123-02

Prepared: 04/20/22 Analyzed: 04/21/22

Acenaphthene	0.0165	0.00500	mg/kg	0.0333	ND	49.4	31-137	8.64	30
Anthracene	0.0178	0.00500	"	0.0333	ND	53.4	30-120	9.78	30
Benzo (a) anthracene	0.0181	0.00500	"	0.0333	ND	54.3	30-120	14.6	30
Benzo (a) pyrene	0.0162	0.00500	"	0.0333	ND	48.6	30-120	15.0	30
Benzo (b) fluoranthene	0.0170	0.00500	"	0.0333	ND	50.9	30-120	12.5	30
Benzo (k) fluoranthene	0.0170	0.00500	"	0.0333	ND	51.0	30-120	11.5	30
Chrysene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	16.3	30
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	8.73	30
Fluoranthene	0.0195	0.00500	"	0.0333	ND	58.5	30-120	12.1	30
Fluorene	0.0176	0.00500	"	0.0333	ND	52.9	30-120	11.3	30
Indeno (1,2,3-cd) pyrene	0.0170	0.00500	"	0.0333	ND	50.9	30-120	12.1	30
Pyrene	0.0183	0.00500	"	0.0333	ND	54.8	35-142	11.2	30
1-Methylnaphthalene	0.0175	0.00500	"	0.0333	ND	52.4	15-130	15.8	50
2-Methylnaphthalene	0.0153	0.00500	"	0.0333	ND	45.9	15-130	13.8	50
Surrogate: 2-Methylnaphthalene-d10	0.0211		"	0.0333		63.3	40-150		
Surrogate: Fluoranthene-d10	0.0199		"	0.0333		59.7	40-150		

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Whiting Oil & Gas
retail
Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control

Summit Scientific

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

Batch BFD0523 - EPA 3050B

Blank (BFD0523-BLK1)

Prepared: 04/25/22 Analyzed: 04/30/22

Boron ND 0.0100 mg/L

LCS (BFD0523-BS1)

Prepared: 04/25/22 Analyzed: 04/30/22

Boron 4.54 0.0100 mg/L 5.00 90.8 80-120

Duplicate (BFD0523-DUP1)

Source: 2204253-01

Prepared: 04/25/22 Analyzed: 04/30/22

Boron 0.675 0.0100 mg/L 0.709 4.81 20

Matrix Spike (BFD0523-MS1)

Source: 2204253-01

Prepared: 04/25/22 Analyzed: 04/30/22

Boron 5.48 0.0100 mg/L 5.00 0.709 95.5 75-125

Matrix Spike Dup (BFD0523-MSD1)

Source: 2204253-01

Prepared: 04/25/22 Analyzed: 04/30/22

Boron 5.39 0.0100 mg/L 5.00 0.709 93.6 75-125 1.68 25

Summit Scientific

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Whiting Oil & Gas
retail
Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:

05/02/22 12:59

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BFD0468 - EPA 3050B

Blank (BFD0468-BLK1)

Prepared: 04/21/22 Analyzed: 04/29/22

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

LCS (BFD0468-BS1)

Prepared: 04/21/22 Analyzed: 04/29/22

Arsenic	35.0	0.200	mg/kg wet	40.0	87.4	80-120
Barium	33.4	0.400	"	40.0	83.6	80-120
Cadmium	1.90	0.200	"	2.00	95.2	80-120
Copper	33.8	0.400	"	40.0	84.5	80-120
Lead	19.5	0.200	"	20.0	97.3	80-120
Nickel	33.7	0.400	"	40.0	84.2	80-120
Selenium	3.48	0.260	"	4.00	87.0	80-120
Silver	1.87	0.0200	"	2.00	93.7	80-120
Zinc	34.8	0.400	"	40.0	87.1	80-120

Duplicate (BFD0468-DUP1)

Source: 2204241-21

Prepared: 04/21/22 Analyzed: 04/29/22

Arsenic	2.71	0.233	mg/kg dry	2.97	9.24	20
Barium	40.7	0.465	"	40.7	0.150	20
Cadmium	0.101	0.233	"	0.145	35.4	20
Copper	6.54	0.465	"	7.37	11.9	20
Lead	5.64	0.233	"	6.88	19.8	20
Nickel	6.72	0.465	"	7.51	11.1	20
Selenium	0.681	0.302	"	0.718	5.32	20
Silver	0.0325	0.0233	"	0.0387	17.5	20
Zinc	26.2	0.465	"	28.6	9.02	20

QR-01

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Whiting Oil & Gas
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Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BFD0468 - EPA 3050B

Matrix Spike (BFD0468-MS1)

Source: 2204241-21

Prepared: 04/21/22 Analyzed: 04/29/22

Arsenic	42.8	0.233	mg/kg dry	46.5	2.97	85.6	75-125
Barium	80.7	0.465	"	46.5	40.7	86.0	75-125
Cadmium	2.30	0.233	"	2.33	0.145	92.6	75-125
Copper	46.5	0.465	"	46.5	7.37	84.1	75-125
Lead	30.6	0.233	"	23.3	6.88	102	75-125
Nickel	45.0	0.465	"	46.5	7.51	80.7	75-125
Selenium	4.31	0.302	"	4.65	0.718	77.3	75-125
Silver	2.00	0.0233	"	2.33	0.0387	84.3	75-125
Zinc	67.5	0.465	"	46.5	28.6	83.5	75-125

Matrix Spike Dup (BFD0468-MSD1)

Source: 2204241-21

Prepared: 04/21/22 Analyzed: 04/29/22

Arsenic	41.9	0.233	mg/kg dry	46.5	2.97	83.7	75-125	2.03	25
Barium	78.6	0.465	"	46.5	40.7	81.5	75-125	2.64	25
Cadmium	2.30	0.233	"	2.33	0.145	92.7	75-125	0.0493	25
Copper	42.5	0.465	"	46.5	7.37	75.4	75-125	9.07	25
Lead	29.5	0.233	"	23.3	6.88	97.1	75-125	3.70	25
Nickel	43.9	0.465	"	46.5	7.51	78.2	75-125	2.58	25
Selenium	4.37	0.302	"	4.65	0.718	78.5	75-125	1.29	25
Silver	2.09	0.0233	"	2.33	0.0387	88.1	75-125	4.33	25
Zinc	74.0	0.465	"	46.5	28.6	97.5	75-125	9.17	25

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Denver CO, 80215

Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

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

Batch BFD0624 - 3060A Mod

Blank (BFD0624-BLK1)

Prepared & Analyzed: 04/28/22

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BFD0624-BS1)

Prepared & Analyzed: 04/28/22

Chromium, Hexavalent 25.2 0.30 mg/kg wet 25.0 101 80-120

Duplicate (BFD0624-DUP1)

Source: 2204261-01

Prepared & Analyzed: 04/28/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BFD0624-MS1)

Source: 2204261-01

Prepared & Analyzed: 04/28/22

Chromium, Hexavalent 32.5 0.30 mg/kg dry 30.3 ND 107 75-125

Matrix Spike Dup (BFD0624-MSD1)

Source: 2204261-01

Prepared & Analyzed: 04/28/22

Chromium, Hexavalent 34.9 0.30 mg/kg dry 30.3 ND 115 75-125 7.37 20

Summit Scientific

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Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BFD0562 - General Preparation

Blank (BFD0562-BLK1)

Prepared: 04/26/22 Analyzed: 05/02/22

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

LCS (BFD0562-BS1)

Prepared: 04/26/22 Analyzed: 05/02/22

Calcium	4.99	0.0500	mg/L wet	5.00	99.7	70-130
Magnesium	5.39	0.0500	"	5.00	108	70-130
Sodium	5.27	0.0500	"	5.00	105	70-130

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Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:

05/02/22 12:59

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch BFD0527 - General Preparation

Duplicate (BFD0527-DUP1)

Source: 2204265-01

Prepared: 04/25/22 Analyzed: 04/27/22

% Solids	85.7	%	87.0	1.45	20
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Whiting Oil & Gas
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Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BFD0591 - General Preparation

Blank (BFD0591-BLK1)

Prepared & Analyzed: 04/27/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BFD0591-BS1)

Prepared & Analyzed: 04/27/22

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BFD0591-DUP1)

Source: 2204254-01

Prepared & Analyzed: 04/27/22

Specific Conductance (EC) 2.40 0.0100 mmhos/cm 2.43 1.24 20

Summit Scientific

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Whiting Oil & Gas
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Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:

05/02/22 12:59

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BFD0589 - General Preparation

LCS (BFD0589-BS1)

Prepared & Analyzed: 04/27/22

pH	9.12	pH Units	9.18	99.3	95-105
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Duplicate (BFD0589-DUP1)

Source: 2204254-01

Prepared & Analyzed: 04/27/22

pH	7.68	pH Units	7.66	0.261	20
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Whiting Oil & Gas
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Project: McLaughlin 94 Closure

Project Number: 20221740.001A

Project Manager: Vince DeCianne

Reported:
05/02/22 12:59

Notes and Definitions

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
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