



FIGURES

Figure 1: Groundwater Analytical Map (01/24/23)

Figure 2: Inorganic Groundwater Parameters Map (01/24/23)

Figure 3: Groundwater Elevation Map (01/24/23)



LEGEND

- INITIAL ASSESSMENT EXTENTS
- APPROXIMATE EXCAVATION EXTENTS
- APPROXIMATE MONITORING WELL LOCATIONS

PARAMETERS

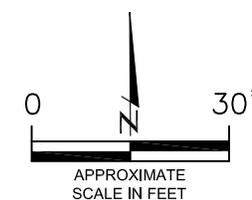
GROUNDWATER SAMPLE LOCATION	
DATE	
B	= BENZENE (µg/L)
T	= TOLUENE (µg/L)
E	= ETHYLBENZENE (µg/L)
X	= TOTAL XYLENES (µg/L)
N	= NAPHTHALENE (µg/L)
1,2,4-TMB	= 1,2,4-TRIMETHYLBENZENE (µg/L)
1,3,5-TMB	= 1,3,5-TRIMETHYLBENZENE (µg/L)

µg/L = MICROGRAMS PER LITER

NOTES:
VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE THE LABORATORY REPORTING LIMIT.

VALUES PRESENTED IN **BOLD** EXCEED THE APPLICABLE COGCC TABLE 915-1 REGULATORY LIMITS.

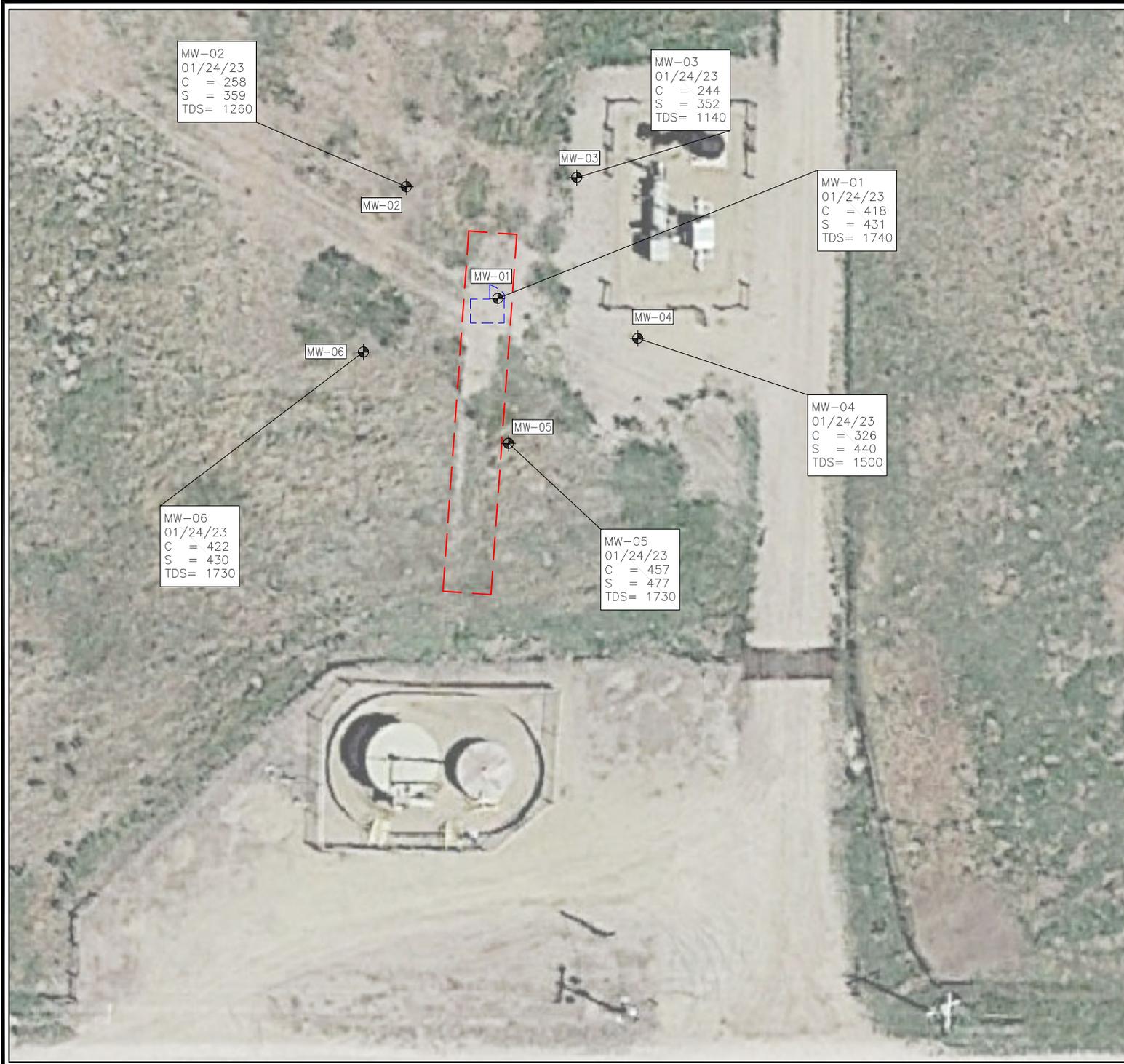
COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION



GROUNDWATER ANALYTICAL MAP
(01/24/23)
LIBSACK 4-8-27
VENT LINE RELEASE
40.276553 / -104.644507
SW¼ SE¼ SEC.27 T4N R65W 6PM
WELD COUNTY, COLORADO
LOCATION ID 310312
REMEDIATION # 23926

DATE:
02/14/23
DRAWN BY:
TC
FIG.
NO. 1

EAGLE
ENVIRONMENTAL
CONSULTING, LLC
8000 W 44th Ave, Wheat Ridge, CO 80033
Ph: 303-433-0479 • F: 303-325-5449



MW-02
01/24/23
C = 258
S = 359
TDS= 1260

MW-03
01/24/23
C = 244
S = 352
TDS= 1140

MW-01
01/24/23
C = 418
S = 431
TDS= 1740

MW-04
01/24/23
C = 326
S = 440
TDS= 1500

MW-05
01/24/23
C = 457
S = 477
TDS= 1730

MW-06
01/24/23
C = 422
S = 430
TDS= 1730

LEGEND

- INITIAL ASSESSMENT EXTENTS
- APPROXIMATE EXCAVATION EXTENTS
- APPROXIMATE MONITORING WELL LOCATIONS

PARAMETERS

SAMPLE LOCATION
DATE
C = CHLORIDE (mg/L)
S = SULFATE (mg/L)
TDS = TOTAL DISSOLVED SOLIDS (mg/L)

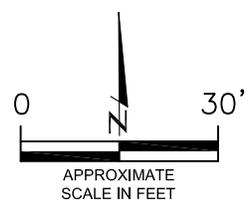
mg/L = MILLIGRAMS PER LITER

NOTES:
INORGANIC GROUNDWATER SAMPLES WERE COLLECTED 01/24/23.

THE INORGANIC GROUNDWATER PARAMETERS IN MW-03 FROM OCTOBER 2022 WERE USED IN THE DETERMINATION OF LOCAL BACKGROUND LEVELS AT THE SITE.

VALUES PRESENTED IN **BOLD** EXCEED THE COGCC TABLE 915-1 REGULATORY LIMITS FOR THAT COMPOUND

BACKGROUND: GOOGLE EARTH AERIAL IMAGERY JUNE 2021

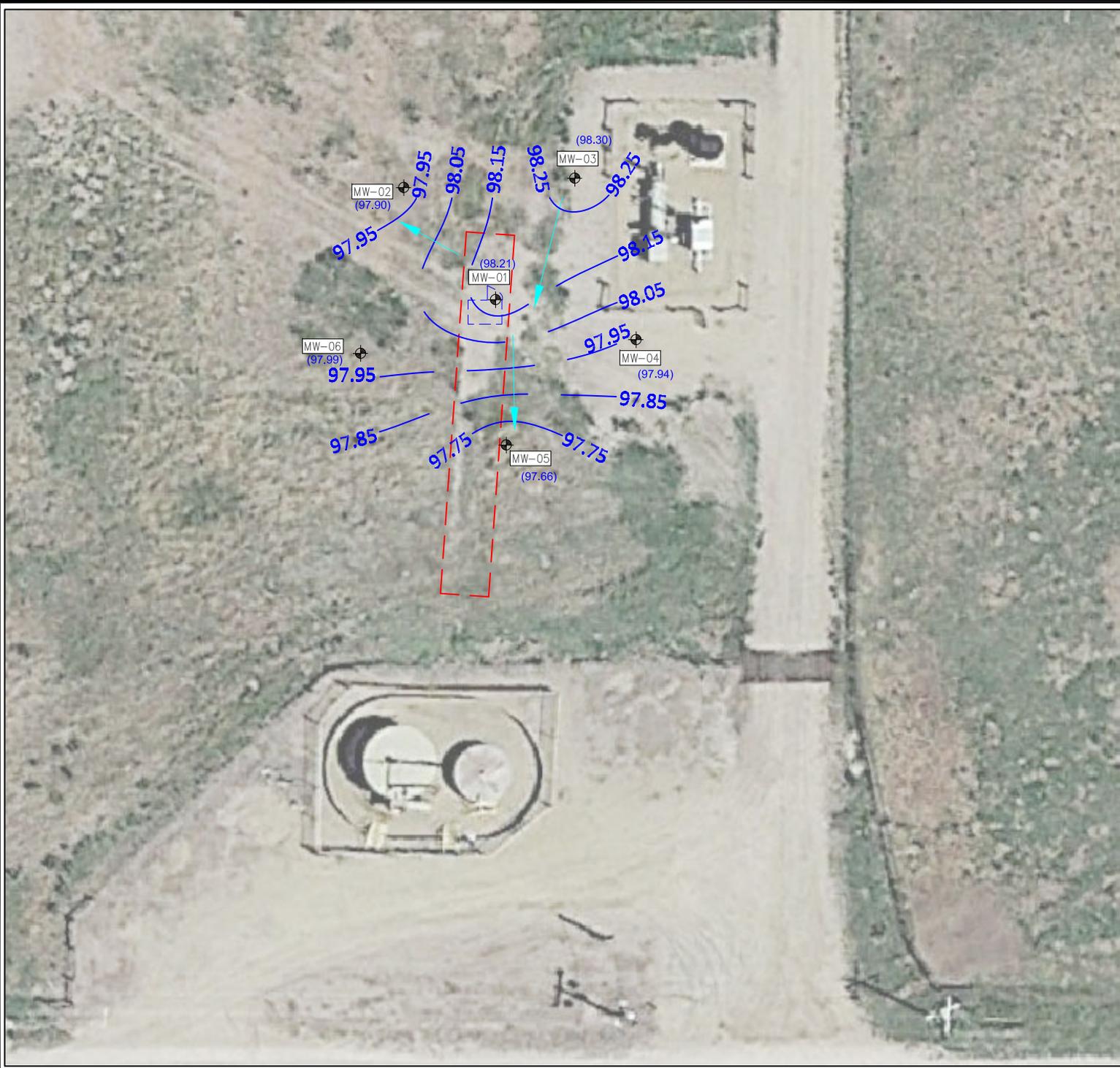


INORGANIC GROUNDWATER PARAMETERS MAP

(01/24/23)
LIBSACK 4-8-27
VENT LINE RELEASE
40.276553 / -104.644507
SW¼ SE¼ SEC.27 T4N R65W 6PM
WELD COUNTY, COLORADO
LOCATION ID 310312
REMIEDIATION # 23926

DATE:
02/14/23
DRAWN BY:
TC
FIG.
NO. 2

EAGLE ENVIRONMENTAL CONSULTING, LLC
8000 W 44th Ave, Wheat Ridge, CO 80033
Ph: 303-433-0479 • F: 303-325-5449



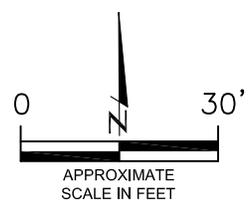
LEGEND

- INITIAL ASSESSMENT EXTENTS
- APPROXIMATE EXCAVATION EXTENTS
- APPROXIMATE MONITORING WELL LOCATIONS
- (91.45) RELATIVE GROUNDWATER ELEVATION (FT.)
- INFERRED GROUNDWATER ELEVATION CONTOUR (FT.)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

FT. = FEET

NOTE: GROUNDWATER ELEVATION DATA COLLECTED ON 01/24/23.

HYDRAULIC GRADIENT (MW-03 TO MW-05): 0.011 FT./FT



GROUNDWATER ELEVATION MAP
(01/24/23)
LIBSACK 4-8-27
VENT LINE RELEASE
40.276553 / -104.644507
SW¼ SE¼ SEC.27 T4N R65W 6PM
WELD COUNTY, COLORADO
LOCATION ID 310312
REMIADIATION # 23926

DATE:
02/14/23
DRAWN BY:
TC
FIG.
NO. 3

EAGLE
ENVIRONMENTAL
CONSULTING, LLC
8000 W 44th Ave, Wheat Ridge, CO 80033
Ph: 303-433-0479 • F: 303-325-5449



TABLES

Table 1: Groundwater Analytical Results Summary

Table 2: Inorganic Groundwater Parameters Summary

Table 3: Groundwater Elevation Summary

TABLE 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY
LIBSACK 4-8-27
VENT LINE RELEASE
40.276553 / -104.644507
SW1/4 SE1/4 SEC.27 T4N R65W 6PM
WELD COUNTY, COLORADO
LOCATION ID 310312
REMEDATION # 23926

Sample Location (Latitude/Longitude)	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- Trimethylbenzene (µg/L)	1,3,5 - Trimethylbenzene (µg/L)
COGCC Table 915-1 Regulatory Limits (µg/L)		5	560	700	1400	140	67	67
GW-01 (40.276553 / -104.644507)	07/06/22	49.1	116	<1.00	309	<2.00	7.70	25.7
MW-01 (40.2765621117 / -104.644501207)	10/20/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	01/24/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
MW-02 (40.276628485 / -104.644572364)	10/20/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	01/24/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
MW-03 (40.276630801 / -104.644441206)	10/20/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	01/24/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
MW-04 (40.276541392 / -104.644401104)	10/20/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	01/24/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
MW-05 (40.276482328 / -104.644504078)	10/20/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	01/24/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
MW-06 (40.276530662 / -104.655607801)	10/20/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	01/24/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
COGCC = Colorado Oil and Gas Conservation Commission µg/L - micrograms per liter Note: Values presented with a less than symbol (<) indicate concentrations were not observed at or above the laboratory reporting limit. Values presented in bold typeface exceed their respective COGCC - Regulatory Limits (Table 915-1).								



TABLE 2
INORGANIC GROUNDWATER PARAMETERS SUMMARY
LIBSACK 4-8-27
VENT LINE RELEASE
40.276553 / -104.644507
SW1/4 SE1/4 SEC.27 T4N R65W 6PM
WELD COUNTY, COLORADO
LOCATION ID 310312
REMEDIATION # 23926

Sample Location (Latitude/Longitude)	Date	Chloride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)
COGCC Table 915-1 Regulatory Limits (mg/L)		<1.25xLocal Background (674)	<1.25xLocal Background (738)	<1.25xLocal Background (2275)
MW-01 (40.276562117 / -104.644501207)	10/21/22	375	381	1490
	01/24/23	418	431	1740
MW-02 (40.276628485 / -104.644572364)	10/21/22	247	293	1770
	01/24/23	258	359	1260
MW-03 (40.276630801 / -104.644441206)	10/21/22	539	590	1820
	01/24/23	244	352	1140
MW-04 (40.276541392 / -104.644401104)	10/21/22	375	392	1470
	01/24/23	326	440	1500
MW-05 (40.276482328 / -104.644504078)	10/21/22	204	262	1040
	01/24/23	457	477	1730
MW-06 (40.276530662 / -104.655607801)	10/21/22	396	346	1430
	01/24/23	422	430	1730

Notes:

COGCC - Colorado Oil and Gas Conservation Commission mg/L = milligrams per liter

Note: The Inorganic Groundwater Parameters in monitoring wells MW-03 were used in the determination of "local background" levels at the site. Local "regulatory limit" (1.25*local background) presented (in parentheses).

Values presented in **bold** typeface exceed their respective COGCC - Regulatory Limits (Table 915-1).



TABLE 3
GROUNDWATER ELEVATION SUMMARY
LIBSACK 4-8-27
VENT LINE RELEASE
40.276553 / -104.644507
SW1/4 SE1/4 SEC.27 T4N R65W 6PM
WELD COUNTY, COLORADO
LOCATION ID 310312
REMEDIATION # 23926

Sample Location (Latitude/Longitude)	Date	Relative Top of Casing Elevation (feet)	Depth to Groundwater from TOC (feet)	Relative Groundwater Elevation (feet)
MW-01 (40.276562117 / -104.644501207)	10/20/22	99.97	1.86	98.11
	01/24/23		1.76	98.21
MW-02 (40.276628485 / -104.644572364)	10/20/22	99.93	2.10	97.83
	01/24/23		2.03	97.90
MW-03 (40.276630801 / -104.644441206)	10/20/22	100	1.79	98.21
	01/24/23		1.70	98.30
MW-04 (40.276541392 / -104.644401104)	10/20/22	99.94	2.11	97.83
	01/24/23		2.00	97.94
MW-05 (40.276482328 / -104.644504078)	10/20/22	99.88	2.32	97.56
	01/24/23		2.22	97.66
MW-06 (40.276530662 / -104.655607801)	10/20/22	99.96	1.99	97.97
	01/24/23		1.97	97.99
NOTES: TOC - top of casing				





ATTACHMENT A

Laboratory Analytical Reports

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

January 27, 2023

Martin Eckert III

Eagle Environmental Consulting

8000 W 44th Ave

Wheat Ridge, CO 80033

RE: Libsack #4-8-27

Work Order # 2301415

Enclosed are the results of analyses for samples received by Summit Scientific on 01/24/23 11:47. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Sheely". The signature is written in a cursive style with a large, stylized "S" at the beginning.

Scott Sheely For Paul Shrewsbury

President



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
01/27/23 10:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-01	2301415-01	Water	01/24/23 11:05	01/24/23 11:47
MW-02	2301415-02	Water	01/24/23 10:55	01/24/23 11:47
MW-03	2301415-03	Water	01/24/23 10:45	01/24/23 11:47
MW-04	2301415-04	Water	01/24/23 10:35	01/24/23 11:47
MW-05	2301415-05	Water	01/24/23 10:25	01/24/23 11:47
MW-06	2301415-06	Water	01/24/23 10:15	01/24/23 11:47

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

2301415

Summit Scientific

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 1

Client: Eagle Environmental Consulting
 Address: 7800 W 44th Ave
 City/State/Zip: Wheat Ridge, CO 80033
 Phone: 303-433-0479
 Sampler Name: TC/EL

Project Manager: Martin Eckert III / invoice: Jacob
 E-Mail: mce3@eagle-enviro.com
 Project Name: Liback #4-8-27
 Project Number: _____

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	BTEX-8200D	Naphthalene-8200D	Tarbs-8200D					
1	MW-01	01/24/23	1105	3	X				X				X	X	X					
2	MW-02	↓	1055	↓	↓				↓				↓	↓	↓				MDLs needed	
3	MW-03		1045	↓	↓				↓				↓	↓	↓					
4	MW-04		1035	↓	↓				↓				↓	↓	↓					
5	MW-05		1025	↓	↓				↓				↓	↓	↓					
6	MW-06		1015	↓	↓				↓				↓	↓	↓					
7																				
8																				
9																				
10																				

Relinquished by: <u>Trevor Copple</u>	Date/Time: <u>1-24-23/1147</u>	Received by: <u>[Signature]</u>	Date/Time: <u>1/24/23 11:47</u>	Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours _____ Standard <input checked="" type="checkbox"/> 48 hours _____	Notes: Sample Integrity: Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No
Temperature Upon Receipt: <u>4.6</u>	Corrected Temperature: <u>_____</u>	IR gun correction: <u>_____</u>	IR gun #: <u>2</u>		

S₂

Sample Receipt Checklist

S2 Work Order# 2301415

Client: Payle Environmental Consulting Client Project ID: Libsark #4-8-27

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

Matrix (Check all that apply) Air Soil/Solid Water Other

Temp (°C) 4.6 Thermometer # 2

	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"/>	on ice
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"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<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"/>	
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"/>	
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, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
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):

None

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

Juno
Custodian Printed Name

1/24/23
Date/Time



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/27/23 10:17

MW-01
2301415-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/23 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	1.0	0.043	ug/l	1	BGA0618	01/25/23	01/26/23	EPA 8260B	
Toluene	ND	1.0	0.061	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	0.14	"	"	"	"	"	"	
Naphthalene	ND	1.0	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	0.069	"	"	"	"	"	"	

Date Sampled: **01/24/23 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		79.4 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.5 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.1 %		21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/27/23 10:17

MW-02
2301415-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/23 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	1.0	0.043	ug/l	1	BGA0618	01/25/23	01/26/23	EPA 8260B	
Toluene	ND	1.0	0.061	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	0.14	"	"	"	"	"	"	
Naphthalene	ND	1.0	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	0.069	"	"	"	"	"	"	

Date Sampled: **01/24/23 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		78.4 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.8 %		21-167		"	"	"	"	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/27/23 10:17

MW-03
2301415-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/23 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	1.0	0.043	ug/l	1	BGA0618	01/25/23	01/26/23	EPA 8260B	
Toluene	ND	1.0	0.061	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	0.14	"	"	"	"	"	"	
Naphthalene	ND	1.0	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	0.069	"	"	"	"	"	"	

Date Sampled: **01/24/23 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		71.9 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.9 %		21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/27/23 10:17

MW-04
2301415-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/23 10:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	1.0	0.043	ug/l	1	BGA0618	01/25/23	01/26/23	EPA 8260B	
Toluene	ND	1.0	0.061	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	0.14	"	"	"	"	"	"	
Naphthalene	ND	1.0	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	0.069	"	"	"	"	"	"	

Date Sampled: **01/24/23 10:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		72.3 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		90.4 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.8 %		21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/27/23 10:17

MW-05
2301415-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	1.0	0.043	ug/l	1	BGA0618	01/25/23	01/26/23	EPA 8260B	
Toluene	ND	1.0	0.061	"	"	"	"	"	"	"
Ethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	"
Xylenes (total)	ND	2.0	0.14	"	"	"	"	"	"	"
Naphthalene	ND	1.0	0.10	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	1.0	0.069	"	"	"	"	"	"	"

Date Sampled: **01/24/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		84.5 %		23-173		"	"	"	"	"
Surrogate: Toluene-d8		93.2 %		20-170		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		92.6 %		21-167		"	"	"	"	"

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/27/23 10:17

MW-06
2301415-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	1.0	0.043	ug/l	1	BGA0618	01/25/23	01/26/23	EPA 8260B	
Toluene	ND	1.0	0.061	"	"	"	"	"	"	"
Ethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	"
Xylenes (total)	ND	2.0	0.14	"	"	"	"	"	"	"
Naphthalene	ND	1.0	0.10	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	1.0	0.068	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	1.0	0.069	"	"	"	"	"	"	"

Date Sampled: **01/24/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		94.1 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		89.6 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.8 %		21-167		"	"	"	"	

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
01/27/23 10:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGA0618 - EPA 5030 Water MS

Blank (BGA0618-BLK1)

Prepared & Analyzed: 01/25/23

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	2.0	"								
Naphthalene	ND	1.0	"								
1,2,4-Trimethylbenzene	ND	1.0	"								
1,3,5-Trimethylbenzene	ND	1.0	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	11.0		"	13.3		82.2		23-173			
<i>Surrogate: Toluene-d8</i>	13.0		"	13.3		97.2		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	13.0		"	13.3		97.3		21-167			

LCS (BGA0618-BS1)

Prepared & Analyzed: 01/25/23

Benzene	42.7	1.0	ug/l	50.0		85.3		51-132			
Toluene	44.7	1.0	"	50.0		89.4		51-138			
Ethylbenzene	46.6	1.0	"	50.0		93.2		58-146			
m,p-Xylene	96.7	2.0	"	100		96.7		57-144			
o-Xylene	47.4	1.0	"	50.0		94.8		53-146			
Naphthalene	47.8	1.0	"	50.0		95.7		70-130			
1,2,4-Trimethylbenzene	47.8	1.0	"	50.0		95.6		70-130			
1,3,5-Trimethylbenzene	47.3	1.0	"	50.0		94.6		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.2		"	13.3		76.5		23-173			
<i>Surrogate: Toluene-d8</i>	12.5		"	13.3		93.6		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.5		"	13.3		94.1		21-167			

Matrix Spike (BGA0618-MS1)

Source: 2301374-01

Prepared & Analyzed: 01/25/23

Benzene	44.3	1.0	ug/l	50.0	ND	88.7		34-141			
Toluene	46.9	1.0	"	50.0	ND	93.7		27-151			
Ethylbenzene	48.9	1.0	"	50.0	ND	97.8		29-160			
m,p-Xylene	102	2.0	"	100	ND	102		20-166			
o-Xylene	48.9	1.0	"	50.0	ND	97.7		33-159			
Naphthalene	43.6	1.0	"	50.0	ND	87.2		70-130			
1,2,4-Trimethylbenzene	50.3	1.0	"	50.0	ND	101		70-130			
1,3,5-Trimethylbenzene	50.0	1.0	"	50.0	ND	100		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.37		"	13.3		70.3		23-173			
<i>Surrogate: Toluene-d8</i>	12.6		"	13.3		94.5		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.4		"	13.3		93.4		21-167			

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/27/23 10:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGA0618 - EPA 5030 Water MS

Matrix Spike Dup (BGA0618-MSD1)	Source: 2301374-01			Prepared & Analyzed: 01/25/23						
Benzene	44.3	1.0	ug/l	50.0	ND	88.7	34-141	0.00	30	
Toluene	46.6	1.0	"	50.0	ND	93.3	27-151	0.492	30	
Ethylbenzene	48.5	1.0	"	50.0	ND	97.0	29-160	0.739	30	
m,p-Xylene	100	2.0	"	100	ND	100	20-166	1.12	30	
o-Xylene	48.6	1.0	"	50.0	ND	97.2	33-159	0.554	30	
Naphthalene	43.7	1.0	"	50.0	ND	87.4	70-130	0.229	30	
1,2,4-Trimethylbenzene	50.8	1.0	"	50.0	ND	102	70-130	0.950	30	
1,3,5-Trimethylbenzene	50.7	1.0	"	50.0	ND	101	70-130	1.47	30	
Surrogate: 1,2-Dichloroethane-d4	9.37		"	13.3		70.3	23-173			
Surrogate: Toluene-d8	12.6		"	13.3		94.6	20-170			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		92.9	21-167			

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
01/27/23 10:17

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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

January 31, 2023

Martin Eckert III

Eagle Environmental Consulting

8000 W 44th Ave

Wheat Ridge, CO 80033

RE: Libsack #4-8-27

Work Order # 2301416

Enclosed are the results of analyses for samples received by Summit Scientific on 01/24/23 11:47. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Sheely". The signature is written in a cursive style with a large, stylized "S" at the beginning.

Scott Sheely For Paul Shrewsbury

President



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
01/31/23 14:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-01	2301416-01	Water	01/24/23 11:05	01/24/23 11:47
MW-02	2301416-02	Water	01/24/23 10:55	01/24/23 11:47
MW-03	2301416-03	Water	01/24/23 10:45	01/24/23 11:47
MW-04	2301416-04	Water	01/24/23 10:35	01/24/23 11:47
MW-05	2301416-05	Water	01/24/23 10:25	01/24/23 11:47
MW-06	2301416-06	Water	01/24/23 10:15	01/24/23 11:47

Summit Scientific

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S₂

Sample Receipt Checklist

S2 Work Order# 2301416

Client: Eagle Environmental Consulting Client Project ID: Libsach # 4-8-27

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

Matrix (Check all that apply) Air Soil/Solid Water Other

Temp (°C) 4.6 Thermometer # 2

	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>
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"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<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"/>	
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"/>	
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):

Polys

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

Jms
Custodian Printed Name

1/24/23
Date/Time



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/31/23 14:51

MW-01
2301416-01 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/24/23 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chloride	418	12.0	0.290	mg/L	200	BGA0625	01/25/23	01/26/23	EPA 300.0	
Sulfate	431	60.0	1.41	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **01/24/23 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Total Dissolved Solids	1740	10.0	10.0	mg/L	1	BGA0620	01/25/23	01/25/23	SM2540C	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]

Project Manager: Martin Eckert III

Reported:

01/31/23 14:51

MW-02
2301416-02 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/24/23 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chloride	258	12.0	0.290	mg/L	200	BGA0625	01/25/23	01/26/23	EPA 300.0	
Sulfate	359	60.0	1.41	"	"	"	"	"	"	"

Total Dissolved Solids by SM2540C

Date Sampled: **01/24/23 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Total Dissolved Solids	1260	10.0	10.0	mg/L	1	BGA0620	01/25/23	01/25/23	SM2540C	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/31/23 14:51

MW-03
2301416-03 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/24/23 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chloride	244	12.0	0.290	mg/L	200	BGA0625	01/25/23	01/26/23	EPA 300.0	
Sulfate	352	60.0	1.41	"	"	"	"	"	"	"

Total Dissolved Solids by SM2540C

Date Sampled: **01/24/23 10:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Total Dissolved Solids	1140	10.0	10.0	mg/L	1	BGA0620	01/25/23	01/25/23	SM2540C	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/31/23 14:51

MW-04
2301416-04 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/24/23 10:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chloride	326	12.0	0.290	mg/L	200	BGA0625	01/25/23	01/26/23	EPA 300.0	
Sulfate	440	60.0	1.41	"	"	"	"	"	"	"

Total Dissolved Solids by SM2540C

Date Sampled: **01/24/23 10:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Total Dissolved Solids	1500	10.0	10.0	mg/L	1	BGA0620	01/25/23	01/25/23	SM2540C	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/31/23 14:51

MW-05
2301416-05 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/24/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chloride	457	12.0	0.290	mg/L	200	BGA0625	01/25/23	01/26/23	EPA 300.0	
Sulfate	477	60.0	1.41	"	"	"	"	"	"	"

Total Dissolved Solids by SM2540C

Date Sampled: **01/24/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Total Dissolved Solids	1730	10.0	10.0	mg/L	1	BGA0620	01/25/23	01/25/23	SM2540C	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/31/23 14:51

MW-06
2301416-06 (Water)

Summit Scientific

Anions by EPA Method 300.0

Date Sampled: **01/24/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chloride	422	12.0	0.290	mg/L	200	BGA0625	01/25/23	01/26/23	EPA 300.0	
Sulfate	430	60.0	1.41	"	"	"	"	"	"	"

Total Dissolved Solids by SM2540C

Date Sampled: **01/24/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Total Dissolved Solids	1730	10.0	10.0	mg/L	1	BGA0620	01/25/23	01/25/23	SM2540C	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/31/23 14:51

Anions by EPA Method 300.0 - Quality Control

Summit Scientific

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

Batch BGA0625 - General Preparation

Blank (BGA0625-BLK1)

Prepared: 01/25/23 Analyzed: 01/26/23

Chloride	ND	0.0600	mg/L							
Sulfate	0.0352	0.300	"							

LCS (BGA0625-BS1)

Prepared: 01/25/23 Analyzed: 01/26/23

Chloride	3.21	0.0600	mg/L	3.00	107	90-110				
Sulfate	16.5	0.300	"	15.0	110	90-110				

Duplicate (BGA0625-DUP1)

Source: 2301416-01

Prepared: 01/25/23 Analyzed: 01/26/23

Chloride	425	12.0	mg/L		418			1.71	20	
Sulfate	462	60.0	"		431			6.89	20	

Matrix Spike (BGA0625-MS1)

Source: 2301416-01

Prepared: 01/25/23 Analyzed: 01/26/23

Chloride	1000	12.0	mg/L	600	418	97.7	80-120			
Sulfate	3470	60.0	"	3000	431	101	80-120			

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 01/31/23 14:51

Total Dissolved Solids by SM2540C - Quality Control
Summit Scientific

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

Batch BGA0620 - General Preparation

Blank (BGA0620-BLK1)

Prepared & Analyzed: 01/25/23

Total Dissolved Solids ND 10.0 mg/L

Duplicate (BGA0620-DUP1)

Source: 2301400-01

Prepared & Analyzed: 01/25/23

Total Dissolved Solids 538 10.0 mg/L 562 4.24 20

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Libsack #4-8-27

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
01/31/23 14:51

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