

**THIRD QUARTER 2023 SITE MONITORING
DATA CARPIO A26-05 Facility
COGCC REMEDIATION # 20996**

Prepared for:



2115 117th Avenue
Greeley, CO 80631

Prepared by:



6855 W. 119th Ave
Broomfield, CO 80020

TABLE 1
GROUNDWATER ELEVATION DATA
NOBLE ENERGY, INC. - CARPIO A26-05 FACILITY



Monitoring Well ID	Date	Top of Casing Elevation (ft. AMSL)	Total Depth (ft. BTOC)	Depth to Water (ft.) ⁽¹⁾	Depth to LNAPL (ft.) ⁽¹⁾	LNAPL Thickness (ft.)	Groundwater Elevation* (ft. AMSL)
BH01	06/22/22	4654.84	11.49	3.26	ND	ND	4651.64
BH01	09/12/22	4654.84	11.48	5.18	ND	ND	4649.72
BH01	11/16/22	4654.84	11.34	4.05	ND	ND	4650.85
BH01	02/02/23	4654.84	11.27	2.68	ND	ND	4652.22
BH01	05/16/23	4654.84	11.15	1.42	ND	ND	4653.48
BH01	08/07/23	4654.84	11.11	3.33	ND	ND	4651.57
BH02	06/22/22	4654.43	12.12	2.85	ND	ND	4651.64
BH02	09/12/22	4654.43	12.05	4.76	ND	ND	4649.73
BH02	11/16/22	4654.43	12.03	3.64	ND	ND	4650.85
BH02	02/02/23	4654.43	12.03	2.26	ND	ND	4652.23
BH02	05/16/23	4654.43	11.89	1.03	ND	ND	4653.46
BH02	08/07/23	4654.43	11.87	2.91	ND	ND	4651.58
BH03	06/22/22	4653.56	11.71	2.07	ND	ND	4651.62
BH03	09/12/22	4653.56	11.45	4.15	ND	ND	4649.54
BH03	11/16/22	4653.56	11.43	2.84	ND	ND	4650.85
BH03	02/02/23	4653.56	11.40	1.48	ND	ND	4652.21
BH03	05/16/23	4653.56	11.26	0.33	ND	ND	4653.36
BH03	08/07/23	4653.56	11.23	2.13	ND	ND	4651.56
BH04	06/22/22	4654.90	11.36	3.32	ND	ND	4651.64
BH04	09/12/22	4654.90	11.37	5.24	ND	ND	4649.72
BH04	11/16/22	4654.90	11.36	4.11	ND	ND	4650.85
BH04	02/02/23	4654.90	11.28	2.73	ND	ND	4652.23
BH04	05/16/23	4654.90	11.23	1.51	ND	ND	4653.45
BH04	08/07/23	4654.90	11.08	3.40	ND	ND	4651.56
BH05	06/22/22	4655.16	10.00	2.22	ND	ND	4653.10
BH05	09/12/22	4655.16	9.85	4.69	ND	ND	4650.63
BH05	11/16/22	4655.16	9.90	3.22	ND	ND	4652.10
BH05	02/02/23	4655.16	9.75	1.87	ND	ND	4653.45
BH05	05/16/23	4655.16	9.52	0.66	ND	ND	4654.66
BH05	08/07/23	4655.16	9.39	2.53	ND	ND	4652.79
BH06	11/16/22	4653.33	12.41	3.76	ND	ND	4649.63
BH06	02/02/23	4653.33	12.32	2.46	ND	ND	4650.93
BH06	05/16/23	4653.33	12.27	1.06	ND	ND	4652.33
BH06	08/07/23	4653.33	12.21	2.99	ND	ND	4650.40
BH07	11/16/22	4655.17	13.00	4.26	ND	ND	4648.91
BH07	02/02/23	4655.17	12.93	2.87	ND	ND	4650.30
BH07	05/16/23	4655.17	12.60	1.66	ND	ND	4651.51
BH07	08/07/23	4655.17	12.48	3.56	ND	ND	4649.61
BH08	11/16/22	4653.43	11.64	4.23	ND	ND	4649.20
BH08	02/02/23	4653.43	12.91	3.89	ND	ND	4649.54
BH08	05/16/23	4653.43	11.40	1.63	ND	ND	4651.80

TABLE 1
GROUNDWATER ELEVATION DATA
NOBLE ENERGY, INC. - CARPIO A26-05 FACILITY



Monitoring Well ID	Date	Top of Casing Elevation (ft. AMSL)	Total Depth (ft. BTOC)	Depth to Water (ft.) ⁽¹⁾	Depth to LNAPL (ft.) ⁽¹⁾	LNAPL Thickness (ft.)	Groundwater Elevation* (ft. AMSL)
BH08	08/07/23	4653.43	11.59	3.50	ND	ND	4649.93
BH09	11/16/22	4655.90	12.83	4.43	ND	ND	4649.16
BH09	02/02/23	4655.90	12.28	2.76	ND	ND	4650.83
BH09	05/16/23	4655.90	11.90	1.88	ND	ND	4651.71
BH09	08/07/23	4655.90	11.83	3.78	ND	ND	4649.81
BH10	11/16/22	4653.82	12.91	2.94	ND	ND	4648.52
BH10	02/02/23	4653.82	11.62	0.39	ND	ND	4651.07
BH10	05/16/23	4653.82	13.04	0.32	ND	ND	4651.14
BH10	08/07/23	4653.82	12.87	2.26	ND	ND	4649.20

Notes:

⁽¹⁾ Depth to water measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

* Groundwater elevation was corrected for product thickness (when present) using the following calculation:

$$\text{Groundwater elevation} = (\text{TOC Elevation} - \text{Measured Depth to Water}) + (\text{LNAPL Thickness in Well} \times \text{LNAPL Relative Density})$$

LNAPL relative density was estimated to be 0.75

Definitions:

- ft. = Feet
- AMSL = Above mean sea level
- BTOC = Below top of casing
- BGS = Below ground surface
- LNAPL = Light non-aqueous phase liquid
- ND = No LNAPL detected

TABLE 2
GROUNDWATER ANALYTICAL DATA
NOBLE ENERGY, INC. - CARPIO A26-05 FACILITY



Monitoring Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)	TDS (mg/L)	Chloride Ion (mg/L)	Sulfate Ion (mg/L)
COGCC Standard		5	560	700	1,400	140	67	67	<1.25 x Background	250 or <1.25 x Background	250 or <1.25 x Background
GW01@3.5'	03/11/22	21	91	9.3	97	3.0	22	9.3	NA	NA	NA
BH01	06/22/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,730	67.8	1,510
BH01	09/12/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,920	31.0	1,820
BH01	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,250	33.2	624
BH01	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,490	38.2	899
BH01	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,660	68.2	1,400
BH01	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,600	71.0	1,510
BH02	06/22/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,350	34.8	1,280
BH02	09/12/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,290	29.4	1,250
BH02	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,090	32.6	496
BH02	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,160	37.2	657
BH02	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,470	58.4	1,050
BH02	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,360	43.2	1,120
BH03	06/22/22	100	110	92	5,600	9.6	170	74	1,620	64.6	1,290
BH03	09/12/22	34	<1.0	1.3	<2.0	<1.0	3.9	<1.0	1,580	27.8	1,540
BH03	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,280	30.4	694
BH03	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,330	37.4	804
BH03	05/16/23	1.8	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,550	51.4	1,200
BH03	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,650	58.6	1,380
BH04	06/22/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,700	69.0	1,460
BH04	09/12/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,620	37.4	1,560
BH04	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,280	42.6	607
BH04	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,400	39.6	864
BH04	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,490	44.6	1,040
BH04	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,650	66.6	1,370
BH05	06/22/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,730	37.0	1,660
BH05	09/12/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,640	34.0	1,590
BH05	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,390	24.0	634
BH05 ⁽²⁾	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,610	42.4	1010
BH05 ⁽²⁾	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,990	41.8	1,670
BH05	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,790	79.4	1,670
BH06	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,160	30.4	505
BH06	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,260	33.2	805
BH06	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,680	84.0	1,160
BH06	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,280	43.6	941
BH07	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,150	27.0	551
BH07	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,340	36.0	844
BH07	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	2,500	156	1,850
BH07	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,320	55.6	1,040
BH08	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,180	25.6	640
BH08	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,440	38.4	879
BH08	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,540	59.0	1,020
BH08	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,340	41.6	1,040
BH09	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,210	19.6	502
BH09	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,360	34.6	849
BH09	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,650	41.6	1,140
BH09	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,400	38.8	1,100
BH10	11/16/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,210	18.0	393
BH10	02/02/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,500	39.4	958
BH10	05/16/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,810	27.8	1,440
BH10	08/07/23	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	1,470	42.8	1,190

Notes:

⁽¹⁾ Groundwater standards referenced from 2 CCR 404-1, Table 915-1 (January 15, 2021).

⁽²⁾ Monitoring well used for inorganic background levels.

Definitions:

- < = Analytical result is less than the indicated laboratory reporting limit
- COGCC = Colorado Oil and Gas Conservation Commission
- mg/L = Milligrams per liter
- µg/L = Micrograms per liter
- 1,2,4 - TMB = 1,2,4 Trimethylbenzene
- 1,3,5 - TMB = 1,3,5 Trimethylbenzene
- TDS = Total Dissolved Solids
- NA = Not analyzed

Highlighted results are equal to or exceed the COGCC Table 915-1 standard

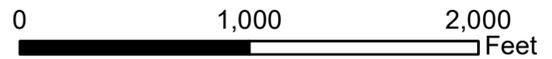
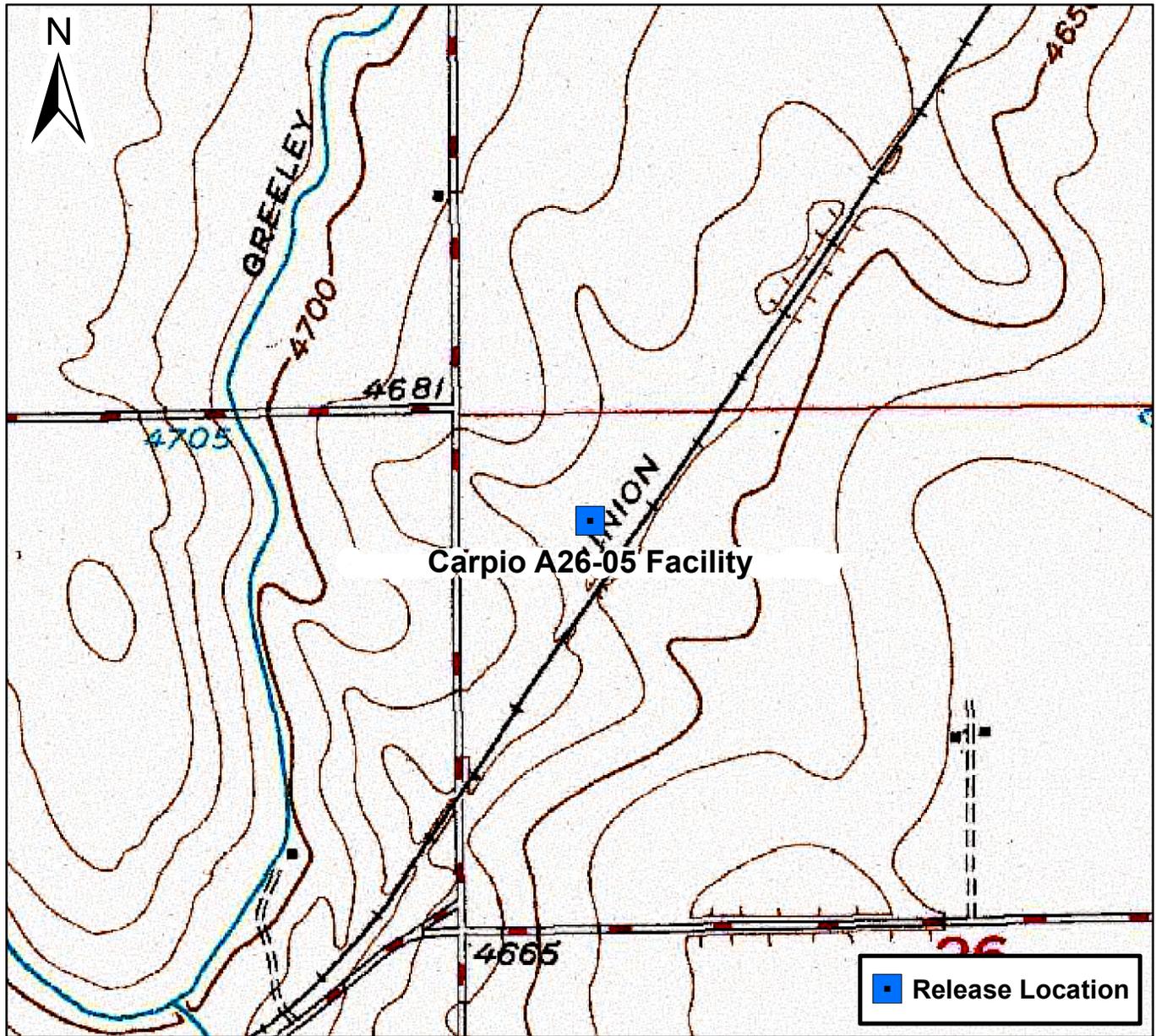


Figure 1

Site Location Map
 Carpio A26-05 Facility
 SWNE S26 T6N R64W
 Weld County, Colorado





Legend

-  Monitoring Well Location
(Collected via Trimble GPS)
-  Excavation Extent
(Collected via Trimble GPS)

Notes

- 1) All locations are approximate unless otherwise noted.
- 2) Site Infrastructure has been removed; shown for illustrative purposes only.

GPS – Global Positioning System
 mg/L – Milligrams per liter
 µg/L – Micrograms per liter

0 ft. 25 ft. 50 ft. 

Image Source: Google Earth; Google 2020

DATE:	03/27/2023
DESIGNED BY:	JW
DRAWN BY:	HM



TASMAN Tasman, Inc.
 6855 W 119th Avenue
 Broomfield, CO 80020

**Noble Energy, Inc. – DJ Basin
 Carpio A26-05 Facility**
 SWNE, Section 26, Township 6 North, Range 64 West
 Weld County, Colorado

Site Overview Map

FIGURE
2



Legend

- Monitoring Well
(Collected via Trimble GPS)
- Excavation Extent
(Collected via Trimble GPS)
- Groundwater Elevation Contour
(Dashed Where Inferred)
- 4763.81** Measured Groundwater Elevation–ft. amsl
- Approximate Groundwater Flow Direction

Notes

- 1) All locations are approximate unless otherwise noted
- 2) Site Infrastructure has been removed; shown for illustrative purposes only.

GPS – Global Positioning System
ft. amsl – Feet above mean sea level

0 ft. 15 ft. 30 ft.

Image Source: Google Earth; Google 2020

DATE:	08/28/2023
DESIGNED BY:	JW
DRAWN BY:	MK

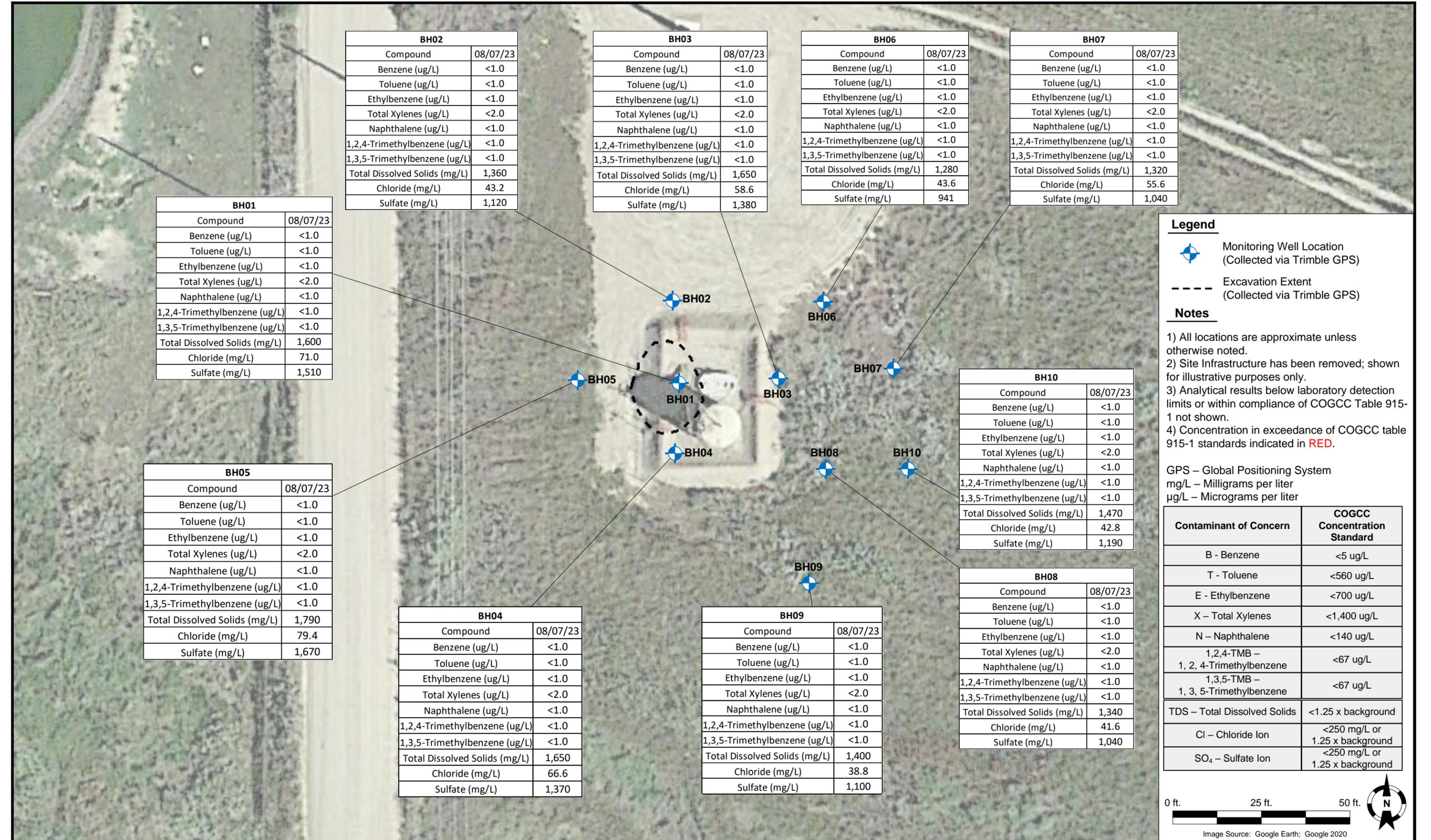


TASMAN Tasman, Inc.
6855 W 119th Avenue
Broomfield, CO 80020

**Noble Energy, Inc. – DJ Basin
Carpio A26-05 Facility**
SWNE, Section 26, Township 6 North, Range 64 West
Weld County, Colorado

Site Assessment
Groundwater Potentiometric
Surface Contour Map
(08/7/2023)

**FIGURE
3**



BH02	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,360
Chloride (mg/L)	43.2
Sulfate (mg/L)	1,120

BH03	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,650
Chloride (mg/L)	58.6
Sulfate (mg/L)	1,380

BH06	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,280
Chloride (mg/L)	43.6
Sulfate (mg/L)	941

BH07	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,320
Chloride (mg/L)	55.6
Sulfate (mg/L)	1,040

BH01	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,600
Chloride (mg/L)	71.0
Sulfate (mg/L)	1,510

BH10	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,470
Chloride (mg/L)	42.8
Sulfate (mg/L)	1,190

BH05	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,790
Chloride (mg/L)	79.4
Sulfate (mg/L)	1,670

BH04	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,650
Chloride (mg/L)	66.6
Sulfate (mg/L)	1,370

BH09	
Compound	08/07/23
Benzene (ug/L)	<1.0
Toluene (ug/L)	<1.0
Ethylbenzene (ug/L)	<1.0
Total Xylenes (ug/L)	<2.0
Naphthalene (ug/L)	<1.0
1,2,4-Trimethylbenzene (ug/L)	<1.0
1,3,5-Trimethylbenzene (ug/L)	<1.0
Total Dissolved Solids (mg/L)	1,400
Chloride (mg/L)	38.8
Sulfate (mg/L)	1,100

DATE: 08/17/2023

DESIGNED BY: JW

DRAWN BY: HM



**Noble Energy, Inc. – DJ Basin
 Carpio A26-05 Facility**
 SWNE, Section 26, Township 6 North, Range 64 West
 Weld County, Colorado

Groundwater Analytical
 Results Map
 (08/07/2023)

FIGURE
 4

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 24, 2023

Jacob Whritenour
Tasman Geosciences
6855 W. 119th Ave.
Broomfield, CO 80020
RE: Noble - Carpio A26-05 FAC
Work Order #2305387

Enclosed are the results of analyses for samples received by Summit Scientific on 05/16/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacob Wood For Paul Shrewsbury
President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

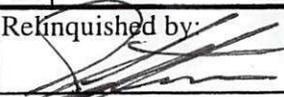
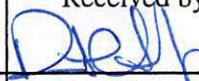
Reported:
05/24/23 14:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	2305387-01	Water	05/16/23 11:02	05/16/23 16:30
BH02	2305387-02	Water	05/16/23 10:50	05/16/23 16:30
BH03	2305387-03	Water	05/16/23 10:59	05/16/23 16:30
BH04	2305387-04	Water	05/16/23 10:24	05/16/23 16:30
BH05	2305387-05	Water	05/16/23 10:10	05/16/23 16:30
BH06	2305387-06	Water	05/16/23 10:48	05/16/23 16:30
BH07	2305387-07	Water	05/16/23 10:36	05/16/23 16:30
BH08	2305387-08	Water	05/16/23 10:38	05/16/23 16:30
BH09	2305387-09	Water	05/16/23 10:07	05/16/23 16:30
BH10	2305387-10	Water	05/16/23 10:22	05/16/23 16:30

		Send Data To:	Send Invoice To:
Client: Noble / Tasman, Inc.		Project Manager: Jake Whritenour	Company: Noble Energy, Inc.
Address: 6855 W. 119th Ave.		E-Mail: Jwhritenour@tasman-geo.com	Project Name/Location: Corpio AZG-05 (FAC)
City/State/Zip: Broomfield / CO / 80020			AFE#:
Phone: 303-487-1228		Project Name: Corpio AZG-05 (FAC)	PO/Billing Codes:
Sampler Name: Patrick Kline		Project Number: N/A	Contact: Dan Peterson

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX	Naphthalene	1,2,4-TMB	1,3,5-TMB	TDS	Chloride		Sulfate
1	BH01	5/16/23	1102	4	3				X					X	X	X	X	X	X	
2	BH02		1050																	
3	BH03		1059																	
4	BH04		1024																	
5	BH05		1010																	
6	BH06		1048																	
7	BH07		1036																	
8	BH08		1038																	
9	BH09		1067																	
10	BH10		1022																	
11																				
12																				
13																				
14																				
15																				

Relinquished by: 	Date/Time: 5/16/23 1430	Received by: Summit North Office	Date/Time: 5/16/23 1430	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: SZ	Date/Time: 5/16/23 1630	Received by: 	Date/Time: 5/16/23 1630	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 8.4	Corrected Temperature: 	IR gun #: 1	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2305387

Client: Noble/Tosman Client Project ID: Carpio AZC-05(FAC)

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

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

Temp (°C) Thermometer #

	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"/>	OUTSIDE
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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):

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

AS
Custodian Printed Name

5/14/23
Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH01
2305387-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **05/16/23 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	14.8	111 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.1	98.6 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.4	100 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	68.2	12.0		mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1400	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1660	10.0		mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH02
2305387-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **05/16/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	13.5	101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	12.4	93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.3	99.7 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	58.4	12.0	mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1050	60.0	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1470	10.0	mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH03
2305387-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.8	1.0	ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **05/16/23 10:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	14.6	110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.3	99.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.9	96.6 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	51.4	12.0	mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1200	60.0	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	1550	10.0	mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH04
2305387-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **05/16/23 10:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	14.8	111 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.3	99.8 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.3	99.7 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	44.6	12.0		mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1040	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1490	10.0		mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH05
2305387-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **05/16/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	14.6	109 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.1	98.3 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.2	99.4 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	41.8	12.0		mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1670	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1990	10.0		mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH06
2305387-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **05/16/23 10:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	13.8	103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	12.5	93.8 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.3	99.9 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	84.0	12.0		mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1160	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1680	10.0		mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH07
2305387-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **05/16/23 10:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	14.7	110 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	99.2 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.1	98.2 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	156	12.0		mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1850	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	2500	10.0		mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH08
2305387-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **05/16/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	14.5	109 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	98.7 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.2	99.3 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	59.0	12.0		mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1020	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1540	10.0		mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Carpio A26-05 FAC
Project Number: UWRWE-A1698-ABN
Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

BH09
2305387-09 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0607	05/17/23	05/17/23	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **05/16/23 10:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	14.3	107 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.1	98.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.3	99.7 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	41.6	12.0		mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1140	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1650	10.0		mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Reported:
05/24/23 14:56

BH10
2305387-10 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/23 10:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0607	05/17/23	05/18/23	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **05/16/23 10:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	13.8	103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	12.6	94.3 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.2	98.7 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **05/16/23 10:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	27.8	12.0		mg/L	200	BGE0680	05/19/23	05/19/23	EPA 300.0	
Sulfate	1440	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **05/16/23 10:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1810	10.0		mg/L	1	BGE0616	05/17/23	05/17/23	SM2540C	

Summit Scientific

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Reported:
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGE0607 - EPA 5030 Water MS

Blank (BGE0607-BLK1)

Prepared & Analyzed: 05/17/23

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>	14.4		"	13.3		108		23-173		
<i>Surrogate: Toluene-d8</i>	13.1		"	13.3		98.3		20-170		
<i>Surrogate: 4-Bromofluorobenzene</i>	13.0		"	13.3		97.8		21-167		

LCS (BGE0607-BS1)

Prepared & Analyzed: 05/17/23

Benzene	36.1	1.0	ug/l	41.7		86.7		51-132		
Toluene	38.4	1.0	"	41.7		92.2		51-138		
Ethylbenzene	44.2	1.0	"	41.7		106		58-146		
m,p-Xylene	90.5	2.0	"	83.3		109		57-144		
o-Xylene	43.3	1.0	"	41.7		104		53-146		
Naphthalene	43.5	1.0	"	41.7		104		70-130		
1,2,4-Trimethylbenzene	49.6	1.0	"	41.7		119		70-130		
1,3,5-Trimethylbenzene	49.7	1.0	"	41.7		119		70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	14.3		"	13.3		107		23-173		
<i>Surrogate: Toluene-d8</i>	12.8		"	13.3		95.9		20-170		
<i>Surrogate: 4-Bromofluorobenzene</i>	12.9		"	13.3		96.5		21-167		

Matrix Spike (BGE0607-MS1)

Source: 2305387-01

Prepared & Analyzed: 05/17/23

Benzene	37.9	1.0	ug/l	41.7	ND	91.0		34-141		
Toluene	39.8	1.0	"	41.7	ND	95.5		27-151		
Ethylbenzene	44.1	1.0	"	41.7	ND	106		29-160		
m,p-Xylene	90.0	2.0	"	83.3	ND	108		20-166		
o-Xylene	43.3	1.0	"	41.7	ND	104		33-159		
Naphthalene	48.4	1.0	"	41.7	ND	116		70-130		
1,2,4-Trimethylbenzene	49.8	1.0	"	41.7	ND	120		70-130		
1,3,5-Trimethylbenzene	49.7	1.0	"	41.7	ND	119		70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	15.0		"	13.3		113		23-173		
<i>Surrogate: Toluene-d8</i>	13.1		"	13.3		98.4		20-170		
<i>Surrogate: 4-Bromofluorobenzene</i>	13.2		"	13.3		98.7		21-167		

Summit Scientific

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Reported:
05/24/23 14:56

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		

Batch BGE0607 - EPA 5030 Water MS

Matrix Spike Dup (BGE0607-MSD1)	Source: 2305387-01			Prepared & Analyzed: 05/17/23						
Benzene	38.1	1.0	ug/l	41.7	ND	91.4	34-141	0.447	30	
Toluene	39.7	1.0	"	41.7	ND	95.3	27-151	0.226	30	
Ethylbenzene	44.4	1.0	"	41.7	ND	106	29-160	0.565	30	
m,p-Xylene	89.9	2.0	"	83.3	ND	108	20-166	0.133	30	
o-Xylene	43.2	1.0	"	41.7	ND	104	33-159	0.208	30	
Naphthalene	49.4	1.0	"	41.7	ND	119	70-130	2.07	30	
1,2,4-Trimethylbenzene	49.4	1.0	"	41.7	ND	119	70-130	0.846	30	
1,3,5-Trimethylbenzene	49.7	1.0	"	41.7	ND	119	70-130	0.0805	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>15.3</i>		<i>"</i>	<i>13.3</i>		<i>115</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>99.4</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.7</i>	<i>21-167</i>			



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Reported:
05/24/23 14:56

Anions by EPA Method 300.0 - Quality Control
Summit Scientific

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

Batch BGE0680 - General Preparation

Blank (BGE0680-BLK1)

Prepared & Analyzed: 05/19/23

Chloride	ND	0.0600	mg/L						
Sulfate	ND	0.300	"						

LCS (BGE0680-BS1)

Prepared & Analyzed: 05/19/23

Chloride	2.79	0.0600	mg/L	3.00	93.0	90-110			
Sulfate	13.5	0.300	"	15.0	90.1	90-110			

Duplicate (BGE0680-DUP1)

Source: 2305350-01

Prepared & Analyzed: 05/19/23

Chloride	45.8	12.0	mg/L		44.0		4.01	20	
Sulfate	114	60.0	"		129		12.3	20	

Matrix Spike (BGE0680-MS1)

Source: 2305350-01

Prepared & Analyzed: 05/19/23

Chloride	640	12.0	mg/L	600	44.0	99.3	80-120		
Sulfate	3130	60.0	"	3000	129	100	80-120		



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Project Number: UWRWE-A1698-ABN

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Reported:
05/24/23 14:56

Total Dissolved Solids by SM2540C - Quality Control

Summit Scientific

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

Batch BGE0616 - General Preparation

Blank (BGE0616-BLK1)

Prepared & Analyzed: 05/17/23

Total Dissolved Solids ND 10.0 mg/L

Duplicate (BGE0616-DUP1)

Source: 2305387-01

Prepared & Analyzed: 05/17/23

Total Dissolved Solids 1760 10.0 mg/L 1660 5.50 20



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Project: Noble - Carpio A26-05 FAC

Project Number: UWRWE-A1698-ABN

Project Manager: Jacob Whritenour

Reported:
05/24/23 14:56

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