



FLOWLINE ABANDONMENT FORM

SITE NAME: Wells Ranch AA35-69-1HNB							DATE: 6/28/2024	REM. PROJECT #: 35408	WEATHER: Sunny's 90s		
SITE DIRECTIONS: CR64/CR68; South on 64 (1.79mi); E (1.2mi); S (0.47mi); E (0.175mi); S (0.263mi)							CLIENT: Noble				
LEGALS AND LAT/LONG: 40.4430537 -104.3934923 (Facility pad)							TASMAN PERSONNEL: Molly Parks				
SOIL TYPES: Silty Sand - SM							SURFACE GRADIENT:				
SOIL SAMPLING							FACILITY INFRASTRUCTURE				
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo?	Grab or Lab Sample?	EQUIPMENT	Quantity	Photo?		
							Above Ground Storage Tank (AST)				
6/28/2024 13:26	FL01R-W@4'	1.7	No Staining	No Odor	Yes	Lab	Buried or Partially Buried Vessel				
6/28/2024 10:56	FL01R-S@4'	2.5	No Staining	No Odor	Yes	Lab	Separator				
6/28/2024 14:50	GL01R-W@4'	2.7	No Staining	No Odor	Yes	Lab	Emission Control Device (ECD)				
6/28/2024 11:22	GL01R-01@5'	1.9	No Staining	Organic Odor	Yes	Lab	Dump Line				
							Wellhead	1	✓		
							Flowline	1	✓		
							Other: GLO1R	1	✓		
							Soil Loads Removed				
							IMPACTED SOIL IDENTIFIED?				
							ESTIMATED VOLUME OF IMPACTS:				
							Date	Number	CY		
							Total Removed				
							0				
							0				
							Disposal Facility:				
							Groundwater Recovery				
							DATE GW ENCOUNTERED:			DEPTH:	
							GROUNDWATER IN CONTACT WITH IMPACTED SOIL?				
							LNAPL OR SHEEN OBSERVED ON GW?				
GROUNDWATER SAMPLING							Date	BBLs			
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?					
							Total Removed				
							0				
							Disposal Facility:				

GENERAL OBSERVATION FORM

 Site Area/AOC: Wells Ranch AA35-69-1HNB Client: Noble

 Daily Forecast/Weather: Sunny's 90s Personnel: Molly Parks

 Task/Location Description: Flowline Decom

Time	Description
	6-27-24
09:53	On Site
09:53	Started JSA
09:53	Finished JSA
	Scope of work: Sample at the wellhead, separator, and gas lift
	Notes:
	Line length (1980')
	Line will be ABIP until other lines/facility get decommissioned
	This line does not have a pump jack but instead runs off a gas lift. What this means is when the oil/water/gas gets
	Separated at the separator then the gas returns back to the well head and act like a pump jack putting pressure down the well
	(GL01R will be the label for the gas lift samples)
	We will not sample the gas lift by the separator since it runs through the compressor and we have active lines in the area
	6-28-24
	Notes:
	GL01R-01 is the gas lift line entering the meter house
	No background samples will be collected during this time due to the limited locate radius of 50ft.
	Backgrounds will be collected when flowline is removed.
	All samples were dug out with a hydrovac
	Soil Lithology:
	FL01R-W: SM Silty sand, dark brown, moist, fine grain, well sort, no staining, no odor
	FL01R-S: SM Silty sand, dark brown, moist, fine grain, well sort, no staining no odor
	GL01R-W: SM Silty sand, dark brown, moist, fine grain, well sort, no staining, no odor
	GL01R-01: SM Silty sand, dark brown, moist, fine grain, well sort, no staining organic odor
13:21	Waiting on an additional vac truck to flush for GL01R-W

Need photo log?



Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Site photo facing north from the wellhead			



Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Site photo facing south from the well head			



Equipment ID: FL01R-W@4'	Equipment Type: Flowline
Material: Steel	Volume:
Contents: Oil/Gas/Water	

Notes/Conditions: Sample was taken by the crew with hand auger.
No GW present. Water in photo remains from hydrovac.

Equipment ID: GL01R-W@4'	Equipment Type: Flowline
Material: Steel	Volume:
Contents: Oil/Gas/Water	

Notes/Conditions: Gas lift line that runs into the wellhead
Sample was taken by the crew



Equipment ID: FL01R-S@4'		Equipment Type: Flowline		Equipment ID: GL01R-01@5'		Equipment Type: Gas lift line	
Material: Steel	Volume:	Contents: Oil/Gas/Water		Material:	Volume:	Contents:	
Notes/Conditions: Sample collected by crew.				Notes/Conditions: Sample collected with hand auger. This gas lift line enters the meter house on the wellhead facility pad			

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE ENERGY, INC. (100322)
WELLS RANCH AA35-69-1HNB FLOWLINE, WELD COUNTY, COLORADO
REM # 35408

Sample ID	Sample Date	Depth (ft. bgs)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
FL01R-S@4'	06/28/2024	4	40.443243	-104.393284	1.0	2.5
FL01R-W@4'	06/28/2024	4	40.448478	-104.394063	1.0	1.7
GL01R-01@5'	06/28/2024	5	40.447844	-104.394131	1.0	1.9
GL01R-W@4'	06/28/2024	4	40.448496	-104.394117	0.8	2.7

Notes:

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTMZone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

in. = Inches

ft. = Feet

bgs = Below ground surface

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY, INC. (100322)
WELLS RANCH AA35-69-1HNB FLOWLINE, WELD COUNTY, COLORADO
REM # 35408

Sample ID	Sample Date	Depth (ft. bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500**		
FL01R-S@4'	06/28/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL01R-W@4'	06/28/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
GL01R-01@5'	06/28/2024	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
GL01R-W@4'	06/28/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

Notes:

- 1. ** Summation of GRO+DRO+ORO must be less than 500 mg/kg.
- ECMC = Energy & Carbon Management Commission
- (<) = Analytical result is less than the indicated laboratory reporting limit.
- TPH-GRO = Total petroleum hydrocarbons - gasoline range organics
- TPH-DRO = Total petroleum hydrocarbons - diesel range organics
- TPH-ORO = Total petroleum hydrocarbons - oil range organics
- mg/kg = Milligrams per kilogram
- ft. = Feet
- bgs = Below ground surface

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY INC. (100322)
WELLS RANCH AA35-69-1HNB FLOWLINE, WELD COUNTY, COLORADO
REM # 35408

Sample ID	Sample Date	Depth (ft. bgs)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01R-S@4'	06/28/2024	4	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01R-W@4'	06/28/2024	4	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
GL01R-01@5'	06/28/2024	5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
GL01R-W@4'	06/28/2024	4	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Notes:

ECMC = Colorado Energy & Carbon Management Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

ft. = Feet

bgs = Below ground surface

mg/kg = Milligrams per kilogram

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY INC. (100322)
WELLS RANCH AA35-69-1HNB FLOWLINE, WELD COUNTY, COLORADO
REM # 35408

Sample ID	Sample Date	Depth (ft. bgs)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
FL01R-S@4'	06/28/2024	4	9.17	0.0925	0.0514	<2.00
FL01R-W@4'	06/28/2024	4	8.66	0.154	0.0486	<2.00
GL01R-01@5'	06/28/2024	5	9.01	0.107	0.0728	<2.00
GL01R-W@4'	06/28/2024	4	9.12	0.0732	0.0122	<2.00

Notes:

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.

2. Brown highlighted soil analytical values indicate a regulatory exceedance.

ECMC = Colorado Energy & Carbon Management Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligram per liter

(<) = Analytical result is less than the indicated laboratory reporting limit.

ft. = Feet

bgs = Below ground surface

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE ENERGY INC. (100322)
WELLS RANCH AA35-69-1HNB FLOWLINE, WELD COUNTY, COLORADO
REM # 35408

Sample ID	Sample Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) ^[4] (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
FL01R-S@4'	06/28/2024	4	2.21	56.8	<0.180	<0.30*	2.91	5.45	3.20	<0.234	<0.0180	13.1
FL01R-W@4'	06/28/2024	4	1.97	119	<0.200	<0.30*	3.74	5.11	4.22	<0.260	0.0233	19.3
GL01R-01@5'	06/28/2024	5	2.38	289	<0.200	<0.30*	2.69	3.77	2.81	<0.260	<0.0200	11.4
GL01R-W@4'	06/28/2024	4	1.90	198	<0.200	<0.30*	3.92	5.15	3.61	<0.260	0.0276	16.7

Notes:

- 1. Bold** faced values exceed the ECMC Table 915-1 limit(s) above native background concentrations.
- Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
- Compound falls within ECMC Table 915-1 Footnote 9.

ECMC = Energy & Carbon Management Commission

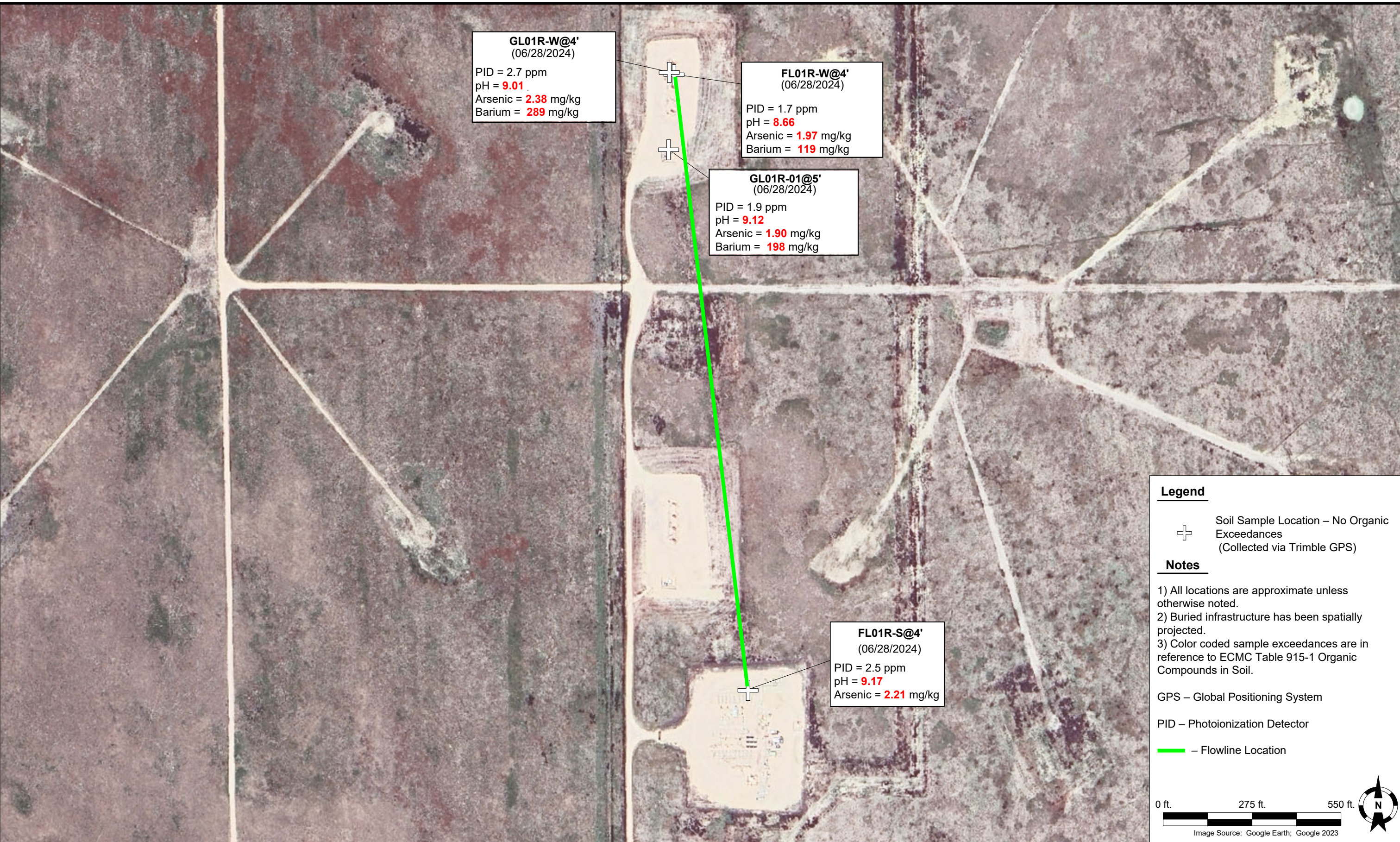
(<) = Analytical result is less than the indicated laboratory reporting limit.

mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

* Indicates laboratory minimum detection limit in excess of SSL



Legend

⊕ Soil Sample Location – No Organic Exceedances (Collected via Trimble GPS)

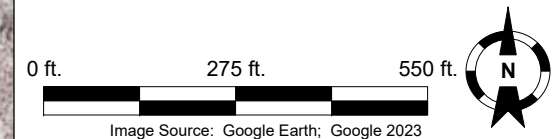
Notes

- 1) All locations are approximate unless otherwise noted.
- 2) Buried infrastructure has been spatially projected.
- 3) Color coded sample exceedances are in reference to ECMC Table 915-1 Organic Compounds in Soil.

GPS – Global Positioning System

PID – Photoionization Detector

— Flowline Location



DATE:	7/08/2024
DESIGNED BY:	JW
DRAWN BY:	LR

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

**Noble Energy, Inc. (100322) – DJ Basin
Wells Ranch AA35-69-1HNB Flowline**
NWNW, Section 36, Township 6 North, Range 63 West
Weld County, Colorado

Flowline Closure & Soil Analytical Results Map
(06/28/2024)

FIGURE 1