

# DECOMMISSIONING REPORT

## LILLI UNIT 5SESW

ECMC SPILL TRACKING # 487087

ECMC REMEDIATION # 27551

Prepared for:

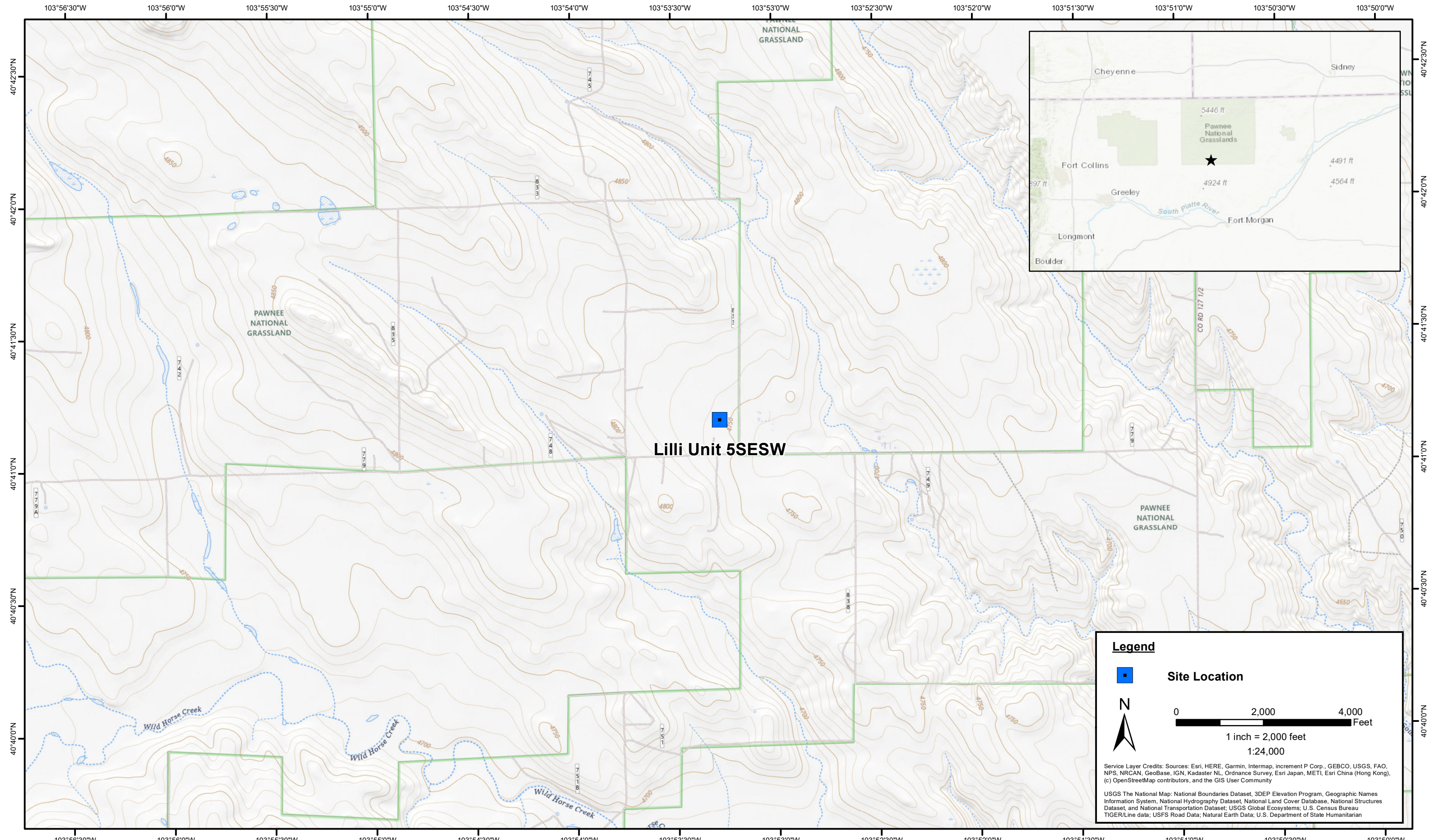


1099 18th Street  
Suite 1500  
Denver, CO 80202

Prepared by:



4725 Independence Street  
Wheat Ridge, CO 80033



DATE: June 2024

DESIGNED BY: B. Nelson

DRAWN BY: J. Clonts



**Tasman, Inc.**  
6855 W. 119th Ave  
Broomfield, CO 80020

**Noble Energy, Inc. – DJ Basin**  
**Lilli Unit 5SESW**  
SESW, Section 5, Township 8 North, Range 58 West  
Weld County, Colorado

Site Location Map

Figure  
1



**Legend**

- Soil Sample Location – Field Screen (Collected via Trimble GPS)
- Soil Sample Location – Lab Analyzed (Collected via Trimble GPS)

**Notes**

- 1) All locations are approximate unless otherwise noted.
- 2) Buried infrastructure has been spatially projected.

GPS – Global Positioning System

0 ft. 100 ft. 200 ft.

Image Source: Google Earth; 2013 Google

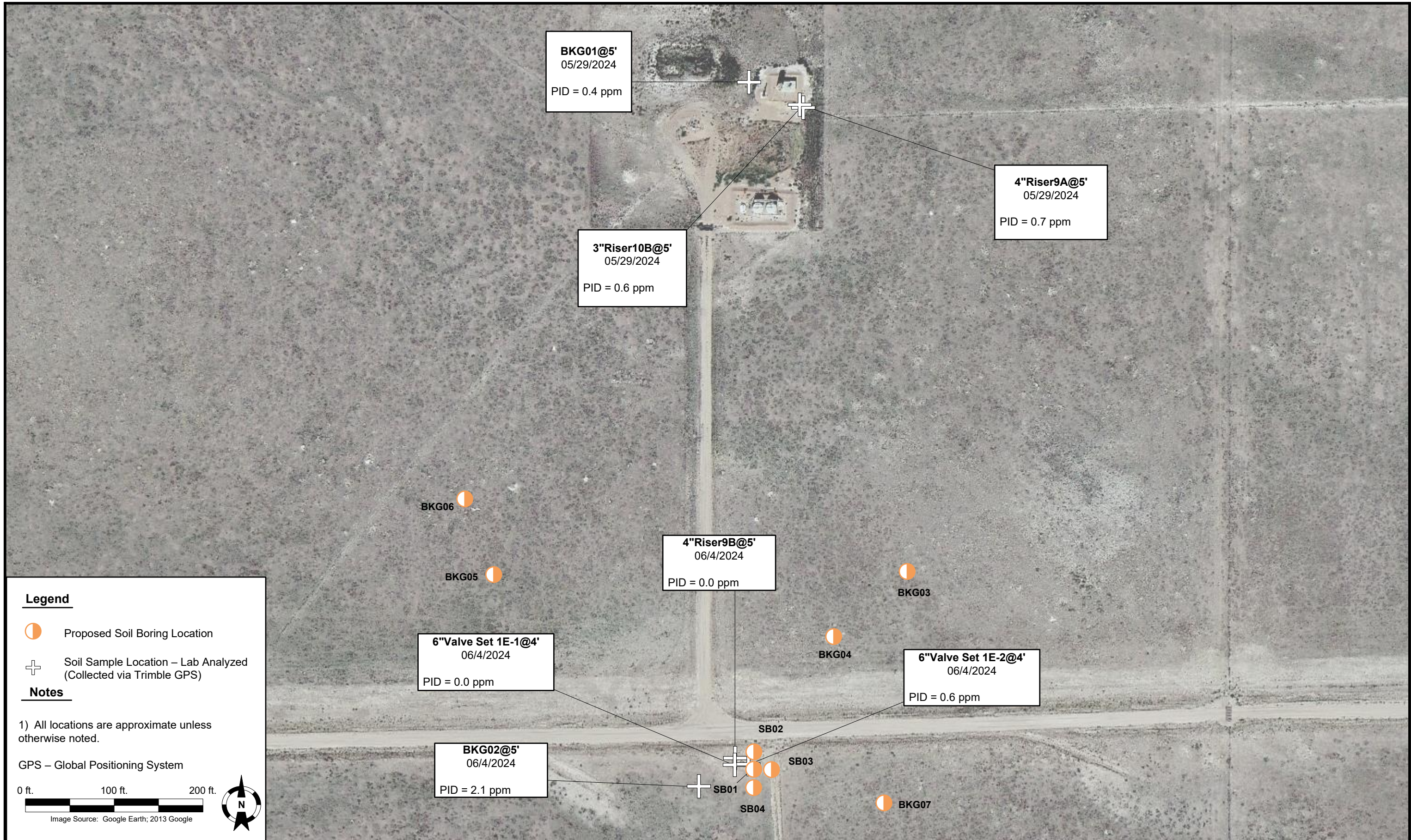
DATE:	June 2, 2025
DESIGNED BY:	C. Hamlin
DRAWN BY:	J. Marcus

**Tasman, Inc.**  
6855 W. 119<sup>th</sup> Ave.  
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**Noble Energy, Inc. – DJ Basin**  
**Lilli Unit-5SESW**  
SESW, Section 5, Township 8 North, Range 58 West  
Weld County, Colorado

SOIL SAMPLE  
LOCATION MAP

FIGURE  
2



DATE: June 23, 2025

DESIGNED BY: C. Hamlin

DRAWN BY: J. Marcus



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 Broomfield, CO 80020

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 Weld County, Colorado

PROPOSED SOIL BORING  
 LOCATION MAP

FIGURE  
 3

**TABLE 1**  
**FIELD DATA SUMMARY TABLE**  
**NOBLE ENERGY, INC (100322)**  
**LILLI UNIT 5SESW WELD COUNTY, COLORADO**  
**REM # 27551**



Sample ID	Sample Date	Depth (ft. bgs)	GPS Data <sup>(1)</sup>		PDOP Value	VOC Concentration <sup>(2)</sup> (ppm)
			Latitude	Longitude		
3" Riser10B@5'	5/29/2024	5	40.685922	-103.888087	1.0	0.60
4" Riser9A@5'	5/29/2024	5	40.685926	-103.888092	1.0	0.70
BKG01@5'	5/29/2024	5	40.685999	-103.888295	0.8	0.40
6" Valve Set 1E-1@4'	6/4/2024	4	40.683890	-103.888391	1.0	0.00
6" Valve Set 1E-2@4'	6/4/2024	4	40.683891	-103.888336	1.0	0.60
4" Riser9B@5'	6/4/2024	5	40.683905	-103.888388	1.5	0.00
BKG02@5'	6/4/2024	5	40.683824	-103.888537	0.8	2.10

**Notes:**

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTM Zone 13 North.
2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

Material excavated and transported off site for disposal.

PDOP = Position Dilution of Precision

ppm = Parts per million

ft. = Feet

bgs = Below ground surface

**TABLE 2**  
**SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA**  
**NOBLE ENERGY, INC (100322)**  
**LILLI UNIT 5SESW WELD COUNTY, COLORADO**  
**REM # 27551**



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**		
3" Riser10B@5'	5/29/2024	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50
4" Riser9A@5'	5/29/2024	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50
6" Valve SET 1E-1@4'	6/4/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50
4" Riser 9B@5'	6/4/2024	5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50
6" Valve SET 1E-2@4'	6/4/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50

**Notes:**

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

  = Material excavated and transported off site for disposal.

mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

\*\* Summation of GRO+DRO+ORO must be less than 500 mg/kg.

TABLE 3  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE ENERGY, INC (100322)  
LILLI UNIT SSESW WELD COUNTY, COLORADO  
REM # 27551



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
3" Riser10B@5'	5/29/2024	5	<0.00500	<0.00500	<b>0.0139</b>	0.0118	0.0295	0.00993	0.0218	<0.00500	0.0188	<0.00500	0.00953	0.0362	<0.00500	<0.00500
4" Riser9A@5'	5/29/2024	5	<0.00500	<0.00500	<b>0.0117</b>	0.0121	0.0305	0.0100	0.0189	<0.00500	0.0130	<0.00500	0.00922	0.0275	<0.00500	<0.00500
6" Valve SET 1E-1@4'	6/4/2024	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
4" Riser 9B@5'	6/4/2024	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
6" Valve SET 1E-2@4'	6/4/2024	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.

  = Material excavated and transported off site for disposal.

ft. = Feet

bgs = Below ground surface

mg/kg = Milligrams per kilogram

**Bold** values exceed the ECMC Table 915-1 limit(s).

Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).

**TABLE 4**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**NOBLE ENERGY, INC (100322)**  
**LILLI UNIT 5SESW WELD COUNTY, COLORADO**  
**REM # 27551**



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
3" Riser10B@5'	5/29/2024	5	<b>8.85</b>	0.169	0.0652	<2.00
4" Riser9A@5'	5/29/2024	5	<b>8.87</b>	0.172	0.0734	<2.00
6" Valve SET 1E-1@4'	6/4/2024	4	<b>8.49</b>	0.474	0.991	<2.00
4" Riser 9B@5'	6/4/2024	5	<b>8.30</b>	0.936	2.40	<2.00
6" Valve SET 1E-2@4'	6/4/2024	4	<b>8.62</b>	0.596	1.68	<2.00
BKG01@5' <sup>(1)</sup>	5/29/2024	5	<b>8.61</b>	0.453	1.06	<2.00
BKG02@4'	6/4/2024	4	<b>8.36</b>	1.03	3.09	NA
BKG02@5'	6/4/2024	5	<b>8.49</b>	0.948	3.09	NA
Maximum Background Concentration			8.49	-	-	-

**Notes:**

1. Based on the location of background sample within a remedial excavation extent, this sample is not used to compare to site inorganic concentrations.

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

NA = Constituent not analyzed

  = Material excavated and transported off site for disposal.

**Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within background concentrations.

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

Brown highlighted soil analytical values indicate a regulatory exceedance.

**TABLE 5**  
**SUMMARY OF METALS IN SOIL CHEMISTRY DATA**  
**NOBLE ENERGY, INC (100322)**  
**LILLI UNIT 5SESW WELD COUNTY, COLORADO**  
**REM # 27551**



Sample ID	Sample Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) <sup>(1)</sup> (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
3" Riser10B@5'	5/29/2024	5	<b>1.85</b>	<b>263</b>	<b>0.391</b>	<0.30	8.67	12.3	8.03	<0.260	0.0317	57.3
4" Riser9A@5'	5/29/2024	5	<b>1.78</b>	<b>274</b>	0.375	<0.30	8.45	13.8	7.67	<0.260	0.0321	35.1
6" Valve SET 1E-1@4'	6/4/2024	4	<b>3.74</b>	<b>221</b>	<b>0.407</b>	<0.30	8.74	12.6	8.36	<0.260	0.0428	33.4
4" Riser 9B@5'	6/4/2024	5	<b>4.38</b>	<b>237</b>	<b>0.413</b>	<0.30	8.64	11.5	8.83	<0.260	0.0421	33.9
6" Valve SET 1E-2@4'	6/4/2024	4	<b>4.04</b>	<b>231</b>	<b>0.382</b>	<0.30	8.59	11.6	8.26	<0.260	0.0377	34.1
BKG01@5' <sup>(2)</sup>	5/29/2024	5	<b>1.84</b>	<b>281</b>	<b>0.391</b>	<0.30	8.22	12.9	8.50	<0.260	0.0274	33.1
BKG02@4'	6/4/2024	4	<b>5.20</b>	<b>293</b>	<b>0.471</b>	<0.30	9.43	11.1	10.1	<0.260	0.0377	37.2
BKG02@5'	6/4/2024	5	<b>4.83</b>	<b>343</b>	<b>0.469</b>	<0.30	9.86	10.9	10.4	<0.260	0.0375	38.2
Maximum Background Concentration X 1.25			6.50	429	0.589	-	-	-	-	-	-	-

**Notes:**

- Compound falls within ECMC Table 915-1 Footnote 9.
- Based on the location of background sample within a remedial excavation extent, this sample is not used to compare to site inorganic concentrations.

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ft. = Feet

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**Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.

Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).