

FLOWLINE ABANDONMENT REPORT
SPEICHER 31-15 FLOWLINE

ECMC REMEDIATION # 39249

Prepared for:



1099 18th Street
Suite 1500
Denver, CO 80202



Prepared by:



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Wheat Ridge, CO 80033



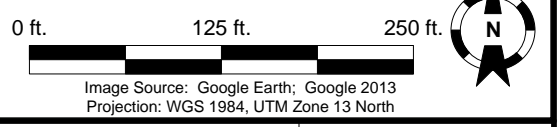
Legend

-  Soil Sample Location – Lab Analyzed (Collected via Trimble GPS)
-  Flowline Location – Abandoned in Place

Notes

1) All locations are approximate unless otherwise noted.

GPS – Global Positioning System
 PID – Photoionization Detector
 ppm – Parts per million



DATE:	May 13, 2025
DESIGNED BY:	J. Whritenour
DRAWN BY:	L. Reed



Tasman, Inc.
 4725 Independence Street
 Wheat Ridge, CO 80033

Noble Energy, Inc - 100322
Speicher 31-15 Flowline
 NWNE, Section 15, Township 6 North, Range 64 West
 Weld County, Colorado

**SOIL SAMPLE
 LOCATION MAP
 (FLOWLINE)**

**FIGURE
 1**

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE ENERGY, INC. (100322)
SPEICHER 31-15, WELD COUNTY, CO
REM # 39249

Sample ID	Sample Date	Depth (ft. bgs)	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
FL01R-W@3'	05/13/2025	3	40.491607	-104.533268	0.8	0.0
BKG01@3'	05/13/2025	3	40.491470	-104.533282	0.9	2.1

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).

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)
SPEICHER 31-15, WELD COUNTY, CO
REM # 39249

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-W@3'	05/13/2025	3	<0.00099	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<5.8	<0.20	<3.8	<5.8

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

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

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

(<) = 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

NA - Not analyzed

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY, INC. (100322)
SPEICHER 31-15, WELD COUNTY, CO
REM # 39249

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	1800	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
FLO1R-W@3'	05/13/2025	3	<0.0040	<0.0040	<0.0050	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

1. Bold values exceed the ECMC Table 915-1 limit(s)
 2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
- (-) = Analytical result is less than the indicated laboratory reporting limit.
mg/kg = Milligrams per kilogram
ft. = Feet
bgs = Below ground surface
NA - Not analyzed

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY, INC. (100322)
SPEICHER 31-15, WELD COUNTY, CO
REM # 39249

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-W@3'	05/13/2025	3	7.41	0.305	1.01	<0.50
BKG01@3'	05/13/2025	3	7.33	0.646	1.37	<0.50
Maximum Background Concentration			-	-	-	-

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

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

3. **Brown** highlighted soil analytical values indicate a regulatory exceedance.

mg/L = Milligrams per liter

ft. = Feet

bgs = Below ground surface

mmhos/cm = Millimohs per centimeter

NA - Not analyzed

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE ENERGY, INC. (100322)
SPEICHER 31-15, WELD COUNTY, CO
REM # 39249

Sample ID	Sample Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (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	15000	71	0.3	3100	400	1500	390	390	23000
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-W@3'	5/13/2025	3	2.6	43.1	<0.25	<0.43*	3.1	3.8	4.0	<0.21	<0.50	14.2
BKG01@3'	5/13/2025	3	3.2	40.7	<0.25	<0.42*	3.2	4.2	3.7	<0.21	<0.51	15.6
1.25x Maximum Background Concentration			4.0	-	-	-	-	-	-	-	-	-

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
2. **Red** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
3. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
4. Non-detect background results accounted for in the highest background concentration by using the reporting limit.
5. * Indicates laboratory minimum detection limit in excess of SSL

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

NA - Not analyzed



FLOWLINE ABANDONMENT FORM

CLIENT: Noble		SITE NAME: Speicher 31-15					DATE: 5/13/2025	REM. PROJECT #: 39249	WEATHER: Sunny 80s	
SITE DIRECTIONS: CR 70 and 57, S 1/10, W 1/10 into site area							JOB#: 10459			
LEGALS AND LAT/LONG: NWNE, S15, T6N, R64W / 40.491610, -104.533280							TASMAN PERSONNEL: M. Reynolds, P. Downs			
SOIL TYPES: Poorly Graded Sand - SP							SURFACE GRADIENT: East			
SOIL SAMPLING							FACILITY INFRASTRUCTURE			
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo?	Grab or Lab Sample?	EQUIPMENT	Quantity		
							Above Ground Storage Tank (AST)			
05-13-2025 10:36	FL01R-W@3'	0.0	No Staining	No Odor	Yes	Lab	Buried or Partially Buried Vessel			
05-13-2025 11:01	BKG01@3'	2.1	No Staining	No Odor	Yes	Lab	Separator			
							Emission Control Device (ECD)			
							Dump Line			
							Wellhead			
							Flowline	1	✓	
							Other:			
							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:			

Chevron Rockies Business Unit

Field Qualitative Criteria for ECMC Reporting Associated with the Discovery of Potentially Impacted Material

If answered **Yes** to any of the questions listed below, this may suggest the presence of potentially impacted materials as outlined in ECMC Rule 912. Out of an abundance of caution, a “Yes” response will be reported to the ECMC within 24 hours after discovery, regardless of laboratory results. **Immediately notify the RBU Remediation Team.** Include a copy of this Field Qualitative Spill Criteria Checklist in the field Report.

Please answer the following questions when on-site:

1. Is there visible petroleum hydrocarbon staining in the soil? No_____
2. Does the soil sample from the stained area have a petroleum odor? No_____
3. Is there a petroleum hydrocarbon sheen on the nearby surface water? No_____
4. Does there appear to be a sheen of the surface of accumulated groundwater or seeps within the excavation indicative of petroleum? No_____
5. Is stained soil in contact with groundwater? No_____

Please Include relevant photos of the site conditions for items 1-5.

Location name: Speicher 31-15_____

Please Circle Facility Type: Flowline_____



Equipment ID: FL01R-W@3'		Equipment Type: Flowline		Equipment ID: BKG01@3'		Equipment Type:	
Material: Steel		Volume:		Material:		Volume:	
Contents: Oil/Gas/Water				Contents:			
Notes/Conditions: Facing south				Notes/Conditions: Facing east			