


Equipment ID: FL01-W@4'

Equipment Type: Flowline

Material:
Volume:
Contents:
Notes/Conditions:
Equipment ID: BKG01-FL@4'

Equipment Type:
Material:
Volume:
Contents:
Notes/Conditions: SC brown, moist, sandy clay well sorted, no odor, no stain

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE ENERGY, INC. - 100322
HAGEMEISTER USX AA 07-01, WELD COUNTY, COLORADO
REM # 36460

Sample ID	Sample Date	Depth (ft. bgs)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
FL01-W@4'	10/30/2024	4	40.506954	-104.471982	0.9	2.6
BKG01-FL@4'	10/30/2024	4	40.506884	-104.477392	1.0	0.2

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).

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
HAGEMEISTER USX AA 07-01, WELD COUNTY, COLORADO
REM # 36460

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**		
FL01-W@4'	10/30/2024	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

Notes:

1. **Bold** values exceed the ECMC Table 915-1 limit(s).
2. Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
3. * Indicates laboratory minimum detection limit in excess of SSL.
4. ** 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
HAGEMEISTER USX AA 07-01, WELD COUNTY, COLORADO
REM # 36460

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
FL01-W@4'	10/30/2024	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:

1. **Bold** values exceed the ECMC Table 915-1 limit(s).
2. Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
3. * Indicates laboratory minimum detection limit in excess of SSL.

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
HAGEMEISTER USX AA 07-01, WELD COUNTY, COLORADO
REM # 36460

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
FL01-W@4'	10/30/2024	4	8.68	6.78	16.8	<2.00
BKG01-FL@4'	10/30/2024	4	8.57	1.75	7.31	<2.00
Maximum Background Concentration			8.57	1.75	7.31	-

Notes:

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.

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
HAGEMEISTER USX AA 07-01, WELD COUNTY, COLORADO
REM # 36460

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
FL01-W@4'	10/30/2024	4	3.77	55.5	0.271	<0.30*	5.84	10.1	4.03	<0.260	0.0260	18.5
BKG01-FL@4'	10/30/2024	4	2.92	46.5	<0.200	<0.30*	2.63	4.10	3.26	<0.260	<0.0200	11.9
Maximum Background Concentration			2.92	-	-	-	-	-	-	-	-	-
Maximum Background Concentration X 1.25			3.65	-	-	-	-	-	-	-	-	-

Notes:

- 1.** Bold faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
- 2.** Bold 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. Compound falls within ECMC Table 915-1 Footnote 9.
5. Non-detect background results accounted for in the highest background concentration by using the reporting limit.

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


Notes

- 1) All locations are approximate unless otherwise noted.
- 2) Soil sample collected during decommissioning of the associated Hagemeister USX AA-66N63W 7NWNE Tank Battery, (REM #36558)

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

0 ft. 125 ft. 250 ft.

Image Source: Google Earth; Google 2021
 Projection: WGS 1984, UTM Zone 13 North



SEP01-FL@4'⁽²⁾
 (10/30/2024)
 PID = 0.1 ppm

BKG01-FL@4'
 (10/30/2024)
 PID = 0.2 ppm

FL01R-W@4'
 (10/30/2024)
 PID = 2.6 ppm

DATE:	January 29, 2025
DESIGNED BY:	J. Whritenour
DRAWN BY:	L. Buck



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

Noble Energy, Inc. – 100322 – DJ Basin
Hagemeister USX AA 07-01 Flowline
 NENE, Section 7, Township 6 North, Range 63 West
 Weld County, Colorado

Flowline Decommissioning
 & Soil Analytical Results
 Map (10/30/2024)

FIGURE
 1