

**DECOMMISSIONING REPORT**  
**HAGEMEISTER USX AA 07-01 FLOWLINE**  
**ECMC REMEDIATION #36460**

Prepared for:



1099 18th Street  
Suite 1500  
Denver, CO 80202



Prepared by:



4725 Independence Street  
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.
- 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'<sup>(2)</sup>**  
 (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:	July 21, 2025
DESIGNED BY:	J. Whritenour
DRAWN BY:	D. Sardinia



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

**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

**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 <sup>1</sup> Latitude/Longitude		PDOP Value	VOC Concentration <sup>2</sup> (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
<b>HAGEMEISTER USX AA-66N63W 7NWNE TANK BATTERY REM #36558</b>						
BKG01@0-6"	10/30/2024	0.5	40.506317	-104.477873	0.9	0.2
BKG01@2.5'	10/30/2024	2.5	40.506317	-104.477873	0.9	0.2
BKG01@5'	10/30/2024	5	40.506317	-104.477873	0.9	0.3
BKG02@0.5-1.5'	02/06/2025	0.5-1.5	40.506368	-104.478205	NC	0.5
BKG02@5-6'	02/06/2025	5-6	40.506368	-104.478205	NC	0.3
BKG02@10-11'	02/06/2025	10-11	40.506368	-104.478205	NC	0.0
BKG02@13-14'	02/06/2025	13-14	40.506368	-104.478205	NC	0.0
BKG03@0.5-1.5'	02/06/2025	0.5-1.5	40.506570	-104.478379	NC	0.1
BKG03@5-6'	02/06/2025	5-6	40.506570	-104.478379	NC	0.0
BKG03@10-11'	02/06/2025	10-11	40.506570	-104.478379	NC	0.0
BKG03@14-15'	02/06/2025	14-15	40.506570	-104.478379	NC	0.0
BKG04@0.5-1.5'	02/06/2025	0.5-1.5	40.507003	-104.477603	NC	0.1
BKG04@5-6'	02/06/2025	5-6	40.507003	-104.477603	NC	0.2
BKG04@10-11'	02/06/2025	10-11	40.507003	-104.477603	NC	0.1
BKG04@14-15'	02/06/2025	14-15	40.507003	-104.477603	NC	0.1
BKG05@0.5-1.5'	02/06/2025	0.5-1.5	40.506828	-104.477147	NC	0.1
BKG05@5-6'	02/06/2025	5-6	40.506828	-104.477147	NC	0.0
BKG05@10-11'	02/06/2025	10-11	40.506828	-104.477147	NC	0.0
BKG05@14-15'	02/06/2025	14-15	40.506828	-104.477147	NC	0.0
BKG06@0.5-1.5'	02/06/2025	0.5-1.5	40.506583	-104.477398	NC	0.1
BKG06@5-6'	02/06/2025	5-6	40.506583	-104.477398	NC	0.0
BKG06@10-11'	02/06/2025	10-11	40.506583	-104.477398	NC	0.0
BKG06@14-15'	02/06/2025	14-15	40.506583	-104.477398	NC	0.0

**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

NC = Not collected

NA = Not analyzed

Source material characterization sample, excavated and transported off site for disposal.

Material excavated and transported off site for disposal.

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	<50	<0.50	<50	<50

**Notes:**

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.

ECMC = Energy and 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

NA = Not analyzed

Source material characterization sample, excavated and transported off site for disposal.

Material excavated and transported off site for disposal.

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	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
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).
- Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
- \* Indicates laboratory minimum detection limit in excess of SSL.

ECMC = Energy and 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

Source material characterization sample, excavated and transported off site for disposal.

Material excavated and transported off site for disposal.



**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	<b>8.68</b>	<b>6.78</b>	<b>16.8</b>	<2.00
BKG01-FL@4'	10/30/2024	4	8.57	1.75	7.31	<2.00
<b>HAGEMEISTER USX AA-66N63W 7NWNE TANK BATTERY REM #36558</b>						
BKG01@0-6"	10/30/2024	0.5	7.05	0.356	0.221	<2.00
BKG01@2.5'	10/30/2024	2.5	9.34	4.18	29.8	3.22
BKG01@5'	10/30/2024	5	8.4	4.46	34.3	<2.00
BKG02@0.5-1.5'	02/06/2025	0.5-1.5	8.54	0.134	0.149	<2.00
BKG02@5-6'	02/06/2025	5-6	8.92	1.87	16.3	<2.00
BKG02@10-11'	02/06/2025	10-11	8.50	0.500	3.05	<2.00
BKG02@13-14'	02/06/2025	13-14	8.75	0.407	2.76	<2.00
BKG03@0.5-1.5'	02/06/2025	0.5-1.5	7.90	0.428	0.339	<2.00
BKG03@5-6'	02/06/2025	5-6	9.00	2.42	22.3	<2.00
BKG03@10-11'	02/06/2025	10-11	8.72	0.421	2.73	<2.00
BKG03@14-15'	02/06/2025	14-15	8.45	0.607	3.39	<2.00
BKG04@0.5-1.5'	02/06/2025	0.5-1.5	7.66	0.153	0.144	<2.00
BKG04@5-6'	02/06/2025	5-6	8.23	4.03	9.98	<2.00
BKG04@10-11'	02/06/2025	10-11	8.49	0.633	7.89	<2.00
BKG04@14-15'	02/06/2025	14-15	8.95	0.650	0.0900	<2.00
BKG05@0.5-1.5'	02/06/2025	0.5-1.5	7.81	0.0700	21.8	<2.00
BKG05@5-6'	02/06/2025	5-6	9.09	1.84	20.8	<2.00
BKG05@10-11'	02/06/2025	10-11	8.75	0.501	4.09	<2.00
BKG05@14-15'	02/06/2025	14-15	8.05	0.779	4.95	<2.00
BKG06@0.5-1.5'	02/06/2025	0.5-1.5	6.99	0.435	0.868	<2.00
BKG06@5-6'	02/06/2025	5-6	8.83	1.67	21.1	<2.00
BKG06@10-11'	02/06/2025	10-11	8.80	0.878	3.45	<2.00
BKG06@14-15'	02/06/2025	14-15	8.38	0.927	7.17	<2.00
Maximum Background Concentration			9.34	4.46	34.3	-

**Notes:**

- Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within background concentrations.
- Red** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
- Brown highlighted soil analytical values indicate a regulatory exceedance.

ECMC = Energy and Carbon Management Commission

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

mg/L = Milligrams per liter

ft. = Feet

bgs = Below ground surface

NA = Not analyzed

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = Millimhos per centimeter

Source material characterization sample, excavated and transported off site for disposal.

Material excavated and transported off site for disposal.

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) <sup>6</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	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
FL01-W@4'	10/30/2024	4	<b>3.77</b>	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
<b>HAGEMEISTER USX AA-66N63W 7NWNW TANK BATTERY REM #36558</b>												
BKG01@0-6"	10/30/2024	0.5	2.22	36.4	<0.200	<0.30*	2.94	5.35	2.57	<0.260	<0.0200	11.7
BKG01@2.5'	10/30/2024	2.5	2.23	46.3	<0.200	<0.30*	2.30	3.77	2.61	<0.260	<0.0200	10.3
BKG01@5'	10/30/2024	5	1.60	42.0	<0.200	<0.30*	3.19	4.25	2.77	<0.260	<0.0200	11.9
BKG02@0.5-1.5'	02/06/2025	0.5-1.5	2.37	43.0	<0.200	<0.30*	2.89	4.57	2.30	<0.260	<0.0200	12.5
BKG02@5-6'	02/06/2025	5-6	2.18	56.0	<0.200	<0.30*	2.51	3.34	2.00	<0.260	<0.0200	11.2
BKG02@10-11'	02/06/2025	10-11	3.44	82.7	0.233	<0.30*	5.54	5.70	5.12	<0.260	0.0281	16.5
BKG02@13-14'	02/06/2025	13-14	1.57	169	0.265	<0.30*	3.00	5.94	3.34	<0.260	<0.0200	14.0
BKG03@0.5-1.5'	02/06/2025	0.5-1.5	2.43	45.3	0.261	<0.30*	4.12	7.86	2.74	<0.260	0.0217	16.8
BKG03@5-6'	02/06/2025	5-6	2.46	29.8	<0.200	<0.30*	2.91	4.16	2.51	<0.260	<0.0200	12.5
BKG03@10-11'	02/06/2025	10-11	2.29	18.5	<0.200	<0.30*	2.86	4.26	2.46	<0.260	<0.0200	12.7
BKG03@14-15'	02/06/2025	14-15	3.21	26.5	<0.200	<0.30*	2.65	4.16	2.27	<0.260	<0.0200	11.7
BKG04@0.5-1.5'	02/06/2025	0.5-1.5	2.85	41.6	<0.200	<0.30*	3.69	4.55	2.63	<0.260	<0.0200	13.5
BKG04@5-6'	02/06/2025	5-6	2.41	51.6	<0.200	<0.30*	2.45	4.55	2.44	<0.260	<0.0200	12.1
BKG04@10-11'	02/06/2025	10-11	6.89	24.2	0.231	<0.30*	5.40	6.26	5.16	<0.260	<0.0200	29.0
BKG04@14-15'	02/06/2025	14-15	3.95	505	0.286	<0.30*	6.79	11.0	6.65	<0.260	<0.0200	26.8
BKG05@0.5-1.5'	02/06/2025	0.5-1.5	3.04	45.5	<0.200	<0.30*	3.31	4.79	3.23	<0.260	0.0231	15.4
BKG05@5-6'	02/06/2025	5-6	2.37	49.8	<0.200	<0.30*	2.48	3.77	2.81	<0.260	<0.0200	11.9
BKG05@10-11'	02/06/2025	10-11	1.93	182	0.224	<0.30*	3.45	5.57	3.49	<0.260	0.0675	13.9
BKG05@14-15'	02/06/2025	14-15	2.42	78.0	<0.200	<0.30*	3.08	5.11	2.91	<0.260	<0.0200	15.2
BKG06@0.5-1.5'	02/06/2025	0.5-1.5	1.88	29.1	<0.200	<0.30*	3.25	5.15	2.09	<0.260	<0.0200	13.2
BKG06@5-6'	02/06/2025	5-6	2.03	65.2	<0.200	<0.30*	3.17	4.99	2.69	<0.260	0.0214	16.2
BKG06@10-11'	02/06/2025	10-11	2.81	56.7	0.240	<0.30*	3.46	6.33	3.82	<0.260	<0.0200	16.4
BKG06@14-15'	02/06/2025	14-15	3.42	18.5	<0.200	<0.30*	2.60	3.52	2.46	<0.260	<0.0200	11.3
1.25x Maximum Background Concentration			8.61	-	-	-	-	-	-	-	-	-

**Notes:**

- Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
- Red** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
- Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
- Reporting limit used for 1.25 multiplier when all background results for a specific metal are non-detect.
- \* Indicates laboratory minimum detection limit in excess of SSL.
- Compound falls within the 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

NA = Not analyzed

Source material characterization sample, excavated and transported off site for disposal.

Material excavated and transported off site for disposal.






**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