

# **FREMONT ENVIRONMENTAL INC.**

March 4, 2024

Mr. Daniel Peterson  
Noble Energy Inc.  
2115 117<sup>th</sup> Avenue  
Greeley, CO 80634

Subject:           **Facility Closure Data Submittal**  
Howard USX A09-19  
NWNW Sec: 9 T6N R64W  
Weld County, Colorado  
Fremont Project No. C024-052  
Facility # 461003  
Remediation # 32243


Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted facility closure activities for the Noble Energy Inc. (Noble) Howard USX A09-19. Impacted soil was not encountered during abandonment activities. Details of the Howard USX A09-19 facility closure activities are documented in the attached Closure Report. Groundwater was not encountered during facility abandonment activities.

Please contact me at (336) 541-3048 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

**FREMONT ENVIRONMENTAL INC.**



Aaron Otillar  
Consultant

Attachments:

- Facility Closure Checklist
- Tables
- Figures
- Photos



Third Party <i>Owner</i>									
Removal Date									
Sample taken? <i>Location/ Sample</i>									
PID Readings									
Photo Number(s)									

### Other Facility Equipment

Equipment type					
Equipment <i>Condition</i>					
Age					
Soil impacts					
PID Readings					
Sample taken? <i>Location/ Sample</i>					
Photo Number(s)					

Other observations regarding other facility or third party equipment:

### Summary

Was impacted soil identified?	
No	Yes - less than 10 cubic yards
Yes - more than 10 cubic yards	
Total number of samples field screened:	Total number of samples collected:
Highest PID Reading:	Total number of samples submitted to lab for analysis:
If more than 10 cubic yards of impacted soil were observed:	
Vertical extent:	Estimated spill volume:
Lateral extent:	Volume of soil removed:
Is additional investigation required?	
Was groundwater encountered during the investigation?	
No	Yes - not impacted or in contact with impacted soils
Yes - groundwater impacted and/or in contact with impacted soils	
Measured depth to groundwater:	Was remedial groundwater removal conducted?    Yes    No
Date Groundwater was encountered:	Commencement date of removal:
Sheen on groundwater?                      Yes                      No	Volume of groundwater removed prior to sampling:
Free product observed?                      Yes                      No	Volume of groundwater removed post sampling:
Total number of samples collected:	Total Volume of groundwater removed:
Total number of samples submitted to lab for analysis:	

## Buried or Partially Buried Vessel Closure Checklist

### COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional attachments (optional):		Pit Closure		Wellhead Closure		Flowline Closure		Tank Battery Closure	
Site Name & COGCC Facility Number:		Date:						Remediation Project #:	
Associated Wells:		Age of Site:						Number of Photos Attached:	
Location: (GPS coordinates of vault or southeastern tank berm for multiple)							Estimated Facility Size (acres):		
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)									
USCS Soil Type:				Estimated Depth to Groundwater:					
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)									
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)									
Buried or Partially Buried Vessels									
Tank Contents									
Size (barrels)									
Age									
Construction Material									
Visual Integrity of Tank									
Condition of tank Foundation									
PID Readings									
Condition of Jumps Lines									
PID Readings									
Sample taken? Location/Sample ID#									
Photo Number(s)									
Other observations regarding partially buried vessels:									
Summary									
Was impacted soil identified? <div style="display: flex; justify-content: space-around;"> <span>No</span> <span>Yes - less than 10 cubic yards</span> <span>Yes - more than 10 cubic yards</span> </div>									
Total number of samples field screened:				Total number of samples collected:					
Highest PID Reading:				Total number of samples submitted to lab for analysis:					
If more than 10 cubic yards of impacted soil were observed:									
Vertical extent:				Estimated spill volume:					
Lateral extent:				Volume of soil removed:					
Is additional investigation required?									
Was groundwater encountered during the investigation? <div style="display: flex; justify-content: space-around;"> <span>No</span> <span>Yes - not impacted or in contact with impacted soils</span> <span>Yes - groundwater impacted and/or in contact with impacted soils</span> </div>									
Measured depth to groundwater:				Was remedial groundwater removal conducted?    Yes    No					
Date Groundwater was encountered:				Commencement date of removal:					
Sheen on groundwater?                      Yes                      No				Volume of groundwater removed prior to sampling:					
Free product observed?                      Yes                      No				Volume of groundwater removed post sampling:					
Total number of samples collected:				Total Volume of groundwater removed:					
Total number of samples submitted to lab for analysis:									

**TABLE 1**  
**FIELD DATA SUMMARY TABLE**  
**OPERATOR NOBLE 100322**  
**HOWARD A09-19 FACILITY, WELD COUNTY, COLORADO**  
**REM # 32243**

Sample ID	Sample Date	Depth	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
AST01@0.5'	03/04/2024	0.5'	-104.5630566	40.5048058	NS	13.3
AST02@0.5'	03/04/2024	0.5'	-104.5630876	40.5047690	NS	12.5
AST03@0.5'	03/04/2024	0.5'	-104.5631193	40.5047300	NS	12.9
AST04@0.5'	03/04/2024	0.5'	-104.5631477	40.5046943	NS	13.2
PWV-B@5'	03/04/2024	5'	-104.5630448	40.5047047	NS	15
PWV-E@2'	03/04/2024	2'	-104.5630048	40.5046780	NS	11.6
PWV-E2@2'	03/04/2024	2'	-104.5629675	40.5047343	NS	10.4
PWV-N@2'	03/04/2024	2'	-104.5629666	40.5047946	NS	10.3
PWV-S@2'	03/04/2024	2'	-104.5630852	40.5046238	NS	9.4
PWV-W@2'	03/04/2024	2'	-104.5630888	40.5047207	NS	11
PWV-W2@2'	03/04/2024	2'	-104.5630483	40.5047722	NS	11.3
SEP01-DL@2'	03/04/2024	2'	-104.5632371	40.5045233	NS	11.7
SEP02-DL@2'	03/04/2024	2'	-104.5632358	40.5045186	NS	8.9

Sample ID	Sample Date	Depth	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
BKG01	03/04/2024	0.5', 2', 5'	-104.5628700	40.5048641	NS	6.6
BKG03	03/04/2024	0.5', 2', 5'	-104.5628728	40.5047631	NS	6.4
BKG02	03/04/2024	0.5', 2', 5'	-104.5629189	40.5047013	NS	6.1

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  
OPERATOR NOBLE 100322  
HOWARD A09-19 FACILITY, WELD COUNTY, COLORADO  
REM # 32243

Sample ID	Sample Date	Depth (ft)	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**		
AST01@0.5'	03/04/2024	0.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
AST02@0.5'	03/04/2024	0.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
AST03@0.5'	03/04/2024	0.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
AST04@0.5'	03/04/2024	0.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
PWV-B@5'	03/04/2024	5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
PWV-E@2'	03/04/2024	2'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
PWV-E2@2'	03/04/2024	2'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
PWV-N@2'	03/04/2024	2'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
PWV-S@2'	03/04/2024	2'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
PWV-W@2'	03/04/2024	2'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
PWV-W2@2'	03/04/2024	2'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
SEP01-DL@2'	03/04/2024	2'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500
SEP02-DL@2'	03/04/2024	2'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<500

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. \* Indicates laboratory minimum detection limit in excess of SSL
  4. \*\* Summation of GRO+DRO+ORO must be less than 500 mg/kg
- NA - Not analyzed

TABLE 3  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
OPERATOR NOBLE 100322  
HOWARD A09-19 FACILITY, WELD COUNTY, COLORADO  
REM # 32243

Sample ID	Sample Date	Depth (ft)	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
AST01@0.5'	03/04/2024	0.5'	<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
AST02@0.5'	03/04/2024	0.5'	<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
AST03@0.5'	03/04/2024	0.5'	<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
AST04@0.5'	03/04/2024	0.5'	<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
PWV-B@5'	03/04/2024	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
PWV-E@2'	03/04/2024	2'	<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
PWV-E2@2'	03/04/2024	2'	<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
PWV-N@2'	03/04/2024	2'	<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
PWV-S@2'	03/04/2024	2'	<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
PWV-W@2'	03/04/2024	2'	<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
PWV-W2@2'	03/04/2024	2'	<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
SEP01-DL@2'	03/04/2024	2'	<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
SEP02-DL@2'	03/04/2024	2'	<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

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. \* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

**TABLE 4**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**OPERATOR NOBLE 100322**  
**HOWARD A09-19 FACILITY, WELD COUNTY, COLORADO**  
**REM # 32243**

Sample ID	Sample Date	Depth (ft)	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
AST01@0.5'	03/04/2024	0.5'	7.28	0.048	0.022	<2.00
AST02@0.5'	03/04/2024	0.5'	7.08	0.039	0.0207	<2.00
AST03@0.5'	03/04/2024	0.5'	<b>8.44</b>	0.174	0.172	<2.00
AST04@0.5'	03/04/2024	0.5'	7.51	0.0618	0.0302	<2.00
PWV-B@5'	03/04/2024	5'	<b>8.73</b>	0.117	0.0901	<2.00
PWV-E@2'	03/04/2024	2'	7.85	0.0677	0.0819	<2.00
PWV-E2@2'	03/04/2024	2'	8.23	0.0744	0.133	<2.00
PWV-N@2'	03/04/2024	2'	<b>8.72</b>	0.223	0.464	<2.00
PWV-S@2'	03/04/2024	2'	<b>8.6</b>	0.145	0.0853	<2.00
PWV-W@2'	03/04/2024	2'	<b>8.83</b>	0.124	0.127	<2.00
PWV-W2@2'	03/04/2024	2'	8.18	0.256	0.54	<2.00
SEP01-DL@2'	03/04/2024	2'	<b>8.77</b>	0.133	0.201	<2.00
SEP02-DL@2'	03/04/2024	2'	<b>8.82</b>	0.121	0.164	<2.00

Sample ID	Sample Date	Depth (ft)	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
BKG01@0.5'	03/04/2024	0.5'	<b>8.47</b>	0.272	0.484	<2.00
BKG01@2'	03/04/2024	2'	<b>8.66</b>	0.221	0.515	<2.00
BKG01@5'	03/04/2024	5'	<b>8.41</b>	0.288	0.506	<2.00
BKG02@0.5'	03/04/2024	0.5'	<b>8.36</b>	0.341	0.708	<2.00
BKG02@2'	03/04/2024	2'	<b>8.47</b>	0.226	0.391	<2.00
BKG02@5'	03/04/2024	5'	<b>8.59</b>	0.28	0.625	<2.00
BKG03@0.5'	03/04/2024	0.5'	<b>8.63</b>	0.174	0.197	<2.00
BKG03@2'	03/04/2024	2'	<b>8.49</b>	0.29	0.652	<2.00
BKG03@5'	03/04/2024	5'	<b>8.54</b>	0.221	0.431	<2.00
Maximum Root Background Concentration (0 - 3 ft)			<b>8.66</b>	<b>0.341</b>	<b>0.708</b>	NA
Average Root Background Concentration (0 - 3 ft)			<b>8.51</b>	<b>0.254</b>	<b>0.491</b>	NA
Maximum Background Concentration			<b>8.66</b>	<b>0.341</b>	<b>0.708</b>	NA
Average Background Concentration			<b>8.51</b>	<b>0.257</b>	<b>0.501</b>	NA

1. Bold faced values exceed the ECMC Table 915-1 limit(s)
  2. Blue highlighted soil analytical values indicate a regulatory exceedance
- NA - Not analyzed

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
OPERATOR NOBLE 100322  
HOWARD A09-19 FACILITY, WELD COUNTY, COLORADO  
REM # 32243

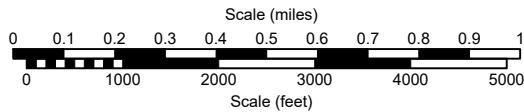
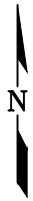
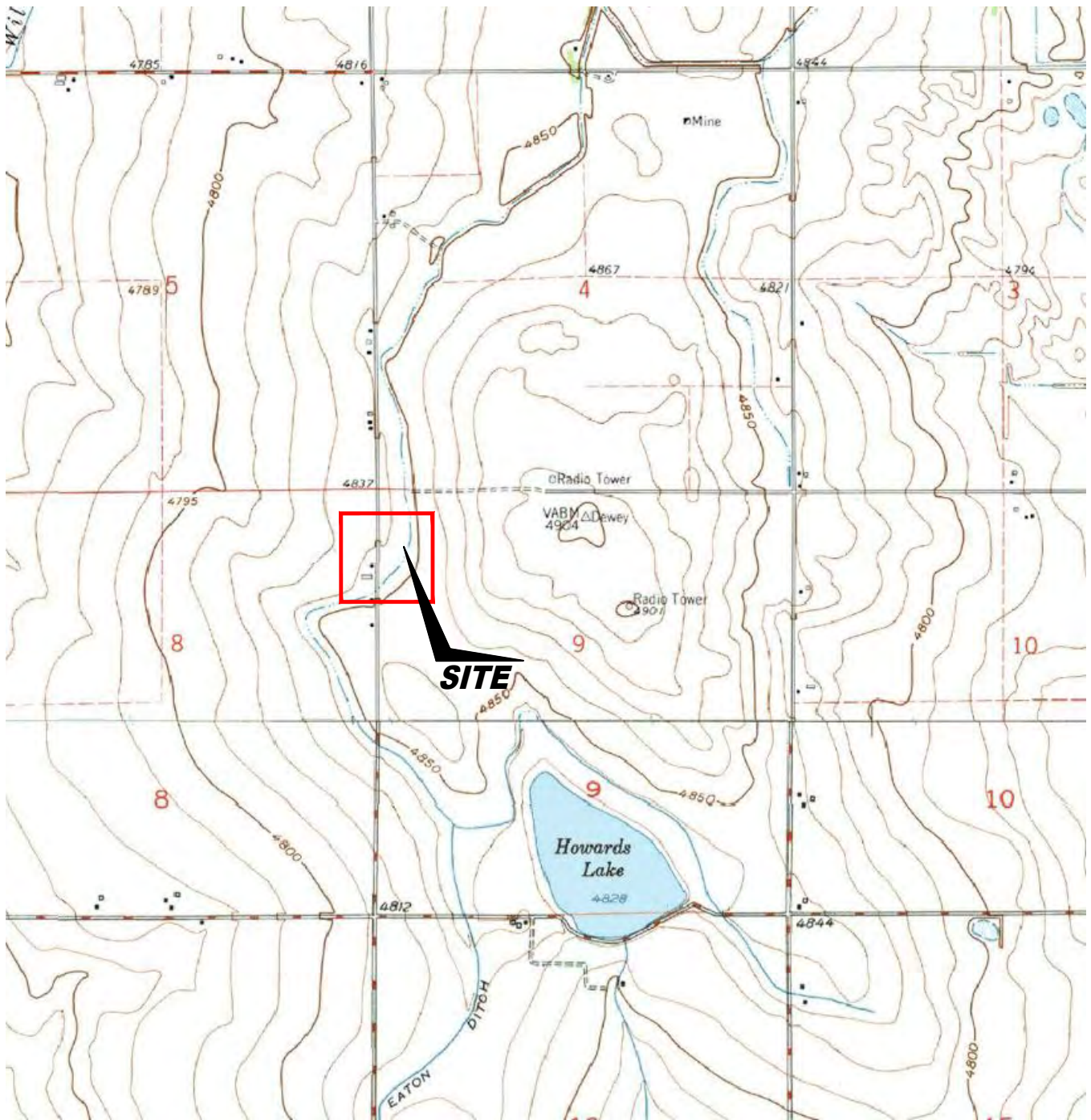
Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
AST01@0.5'	03/04/2024	0.5'	<b>0.931</b>	<b>84.9</b>	0.232	<0.30	1.81	8.83	2.08	<0.260	0.0325	8.25
AST02@0.5'	03/04/2024	0.5'	<b>0.876</b>	<b>87.6</b>	0.262	<0.30	1.71	11.6	2.09	<0.260	0.0325	8.14
AST03@0.5'	03/04/2024	0.5'	<b>0.962</b>	<b>139</b>	0.330	<0.30	1.89	10.1	2.55	<0.260	0.0455	9.02
AST04@0.5'	03/04/2024	0.5'	<b>1.03</b>	79.6	0.214	<0.30	1.77	7.97	1.91	<0.260	0.0257	8.13
PWV-B@5'	03/04/2024	5'	<b>1.11</b>	<b>137</b>	0.244	<0.30	1.90	10.3	2.44	<0.260	0.058	9.24
PWV-E@2'	03/04/2024	2'	<b>1.14</b>	<b>88.0</b>	0.278	<0.30	1.58	10.8	2.20	<0.260	0.0334	8.01
PWV-E2@2'	03/04/2024	2'	<b>1.26</b>	<b>116</b>	0.254	<0.30	1.97	12.0	2.71	<b>0.261</b>	0.107	9.39
PWV-N@2'	03/04/2024	2'	<b>1.02</b>	<b>137</b>	0.366	<0.30	2.04	11.3	2.93	<0.260	0.0583	9.89
PWV-S@2'	03/04/2024	2'	<b>0.933</b>	<b>113</b>	0.265	<0.30	2.12	10.7	2.29	<0.260	0.0542	10.50
PWV-W@2'	03/04/2024	2'	<b>0.994</b>	<b>150</b>	0.346	<0.30	1.96	<b>14.3</b>	2.84	<0.260	0.0612	10.00
PWV-W2@2'	03/04/2024	2'	<b>1.08</b>	<b>169</b>	0.307	<0.30	2.45	12.8	2.75	<0.260	0.0832	10.90
SEP01-DL@2'	03/04/2024	2'	<b>1.08</b>	<b>126</b>	0.245	<0.30	1.83	9.44	2.27	<0.260	0.0397	9.47
SEP02-DL@2'	03/04/2024	2'	<b>0.955</b>	<b>133</b>	0.365	<0.30	1.88	10.3	3.25	<0.260	0.0358	9.60
BKG01@0.5'	03/04/2024	0.5'	<b>1.54</b>	<b>138</b>	0.311	<0.30	2.70	<b>14.5</b>	2.63	<b>0.308</b>	0.0816	9.89
BKG01@2'	03/04/2024	2'	<b>0.893</b>	60.6	0.229	<0.30	2.77	12.3	1.84	<0.260	0.0637	3.65
BKG01@5'	03/04/2024	5'	<b>1.42</b>	<b>131</b>	0.271	<0.30	2.83	13.0	2.62	<b>0.275</b>	0.0737	9.76
BKG02@0.5'	03/04/2024	0.5'	<b>1.03</b>	65.6	<0.200	<0.30	2.07	10.7	1.56	<0.260	0.0543	5.29
BKG02@2'	03/04/2024	2'	<b>1.28</b>	<b>160</b>	0.367	<0.30	2.20	12.3	3.43	<0.260	0.0732	10.00
BKG02@5'	03/04/2024	5'	<b>0.995</b>	<b>107</b>	0.303	<0.30	2.77	9.97	2.53	<0.260	0.0967	2.64
BKG03@0.5'	03/04/2024	0.5'	<b>1.26</b>	79.5	<0.200	<0.30	2.14	7.63	2.85	<0.260	0.051	10.50
BKG03@2'	03/04/2024	2'	<b>14.1</b>	<b>288</b>	<b>1.71</b>	<0.30	10.80	<b>23.9</b>	15.30	<b>0.85</b>	0.216	14.90
BKG03@5'	03/04/2024	5'	<b>5.96</b>	<b>124</b>	0.362	<0.30	7.53	13.4	8.67	<0.260	0.0806	30.30
Maximum Root Zone Background Concentration (0 - 3 ft)			<b>14.1</b>	<b>288</b>	<b>1.71</b>	NA	<b>10.8</b>	<b>23.9</b>	<b>15.3</b>	<b>0.85</b>	0.216	<b>14.9</b>
125% Average Root Zone Background Concentration (0 - 3 ft)			<b>4.19</b>	<b>164.9</b>	<b>0.818</b>	NA	<b>4.73</b>	<b>16.9</b>	<b>5.75</b>	<b>0.72</b>	0.112	<b>11.3</b>
Maximum Background Concentration			<b>14.1</b>	<b>288</b>	<b>1.71</b>	NA	<b>10.8</b>	<b>23.9</b>	<b>15.3</b>	<b>0.85</b>	0.216	<b>30.3</b>
125% Average Background Concentration			<b>3.96</b>	<b>160.2</b>	<b>0.63</b>	NA	<b>4.97</b>	<b>16.35</b>	<b>5.75</b>	<b>0.60</b>	0.110	<b>13.5</b>

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)

\* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
**SITE LOCATION MAP**  
**NOBLE ~ HOWARD USX A 09-19 TANK**

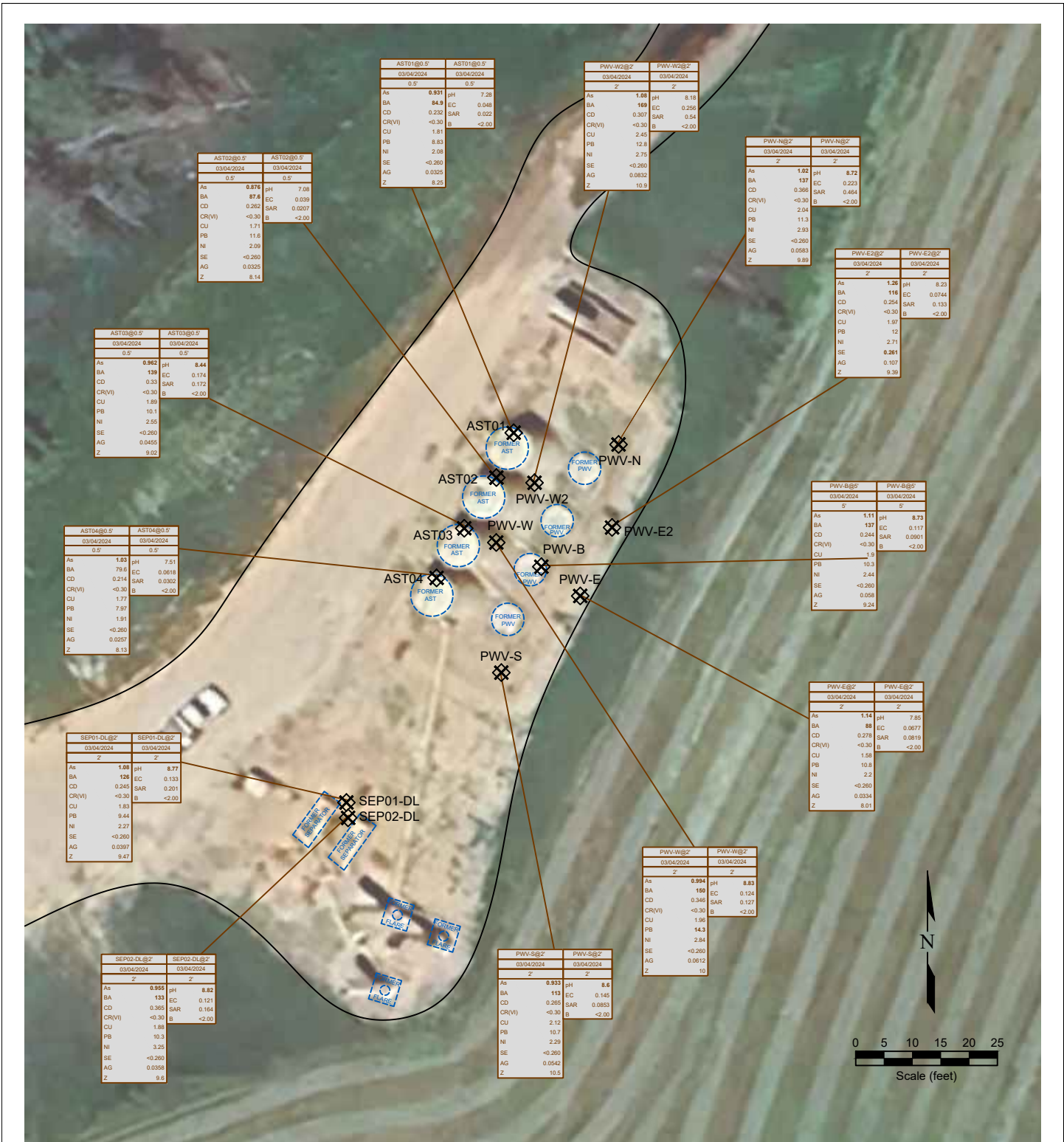
NWNW Sec. 9, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.504470°, -104.563232°

Project # <b>CO24-052</b>	API #	Facility # <b>423216</b>
Date <b>8/28/24</b>	Remediation # <b>32243</b>	Filename <b>24052T</b>









**LEGEND**

- WELL HEAD LOCATION
- ⊗ SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- FLOWLINE
- FENCE LINE
- ||||| CONTAINMENT BERM
- CONTAINMENT WALL
- NS NOT ANALYZED

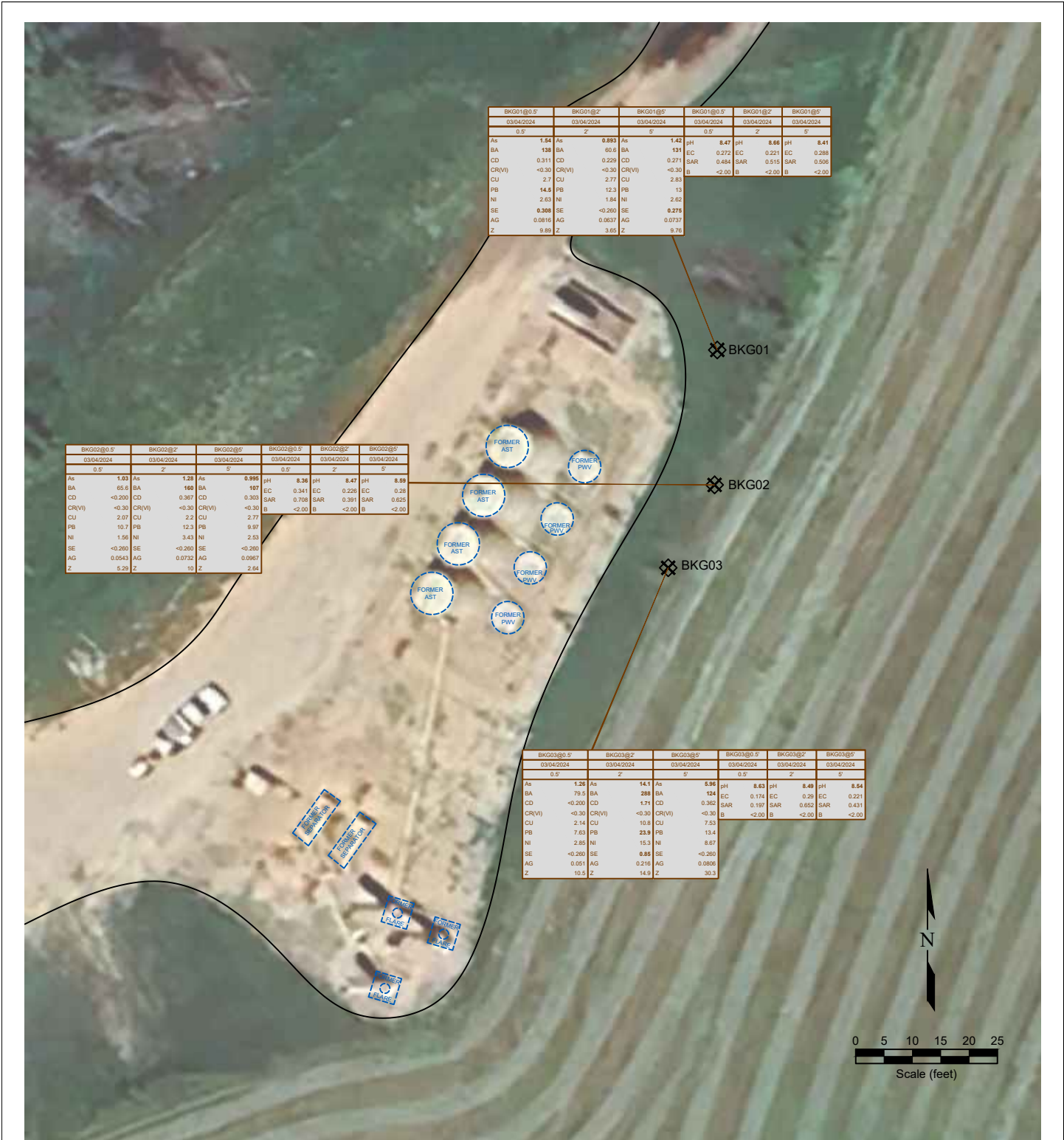
SAMPLE ID	SAMPLE DATE	SAMPLE ID	SAMPLE DATE
As	-0.01	As	-0.01
BA	-0.01	BA	-0.01
CD	-0.01	CD	-0.01
CR(VI)	-0.01	CR(VI)	-0.01
CU	-0.01	CU	-0.01
PB	-0.01	PB	-0.01
NI	-0.01	NI	-0.01
SE	-0.01	SE	-0.01
AG	-0.01	AG	-0.01
Z	-0.01	Z	-0.01

**Figure 4**  
**METALS AND INORGANIC SOIL CHEMISTRY MAP**  
**NOBLE ~ HOWARD USX A 09-19 TANK**

NWNW Sec. 9, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.504470°, -104.563232°

Project No. <b>CO24-052</b>	API #	Facility # <b>423216</b>
Date <b>8/28/24</b>	Remediation # <b>32243</b>	Filename <b>24052Q</b>





**LEGEND**

- WELL HEAD LOCATION
- ⊗ SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- FLOWLINE
- FENCE LINE
- ||||| CONTAINMENT BERM
- CONTAINMENT WALL
- NS NOT ANALYZED

SAMPLE ID	SAMPLE DATE	DEPTH (ft)	PARAMETER	UNIT	VALUE
As	03/04/2024	0.0'	ARSENIC	(mg/kg)	1.54
BA	03/04/2024	0.0'	BARIUM	(mg/kg)	138
CD	03/04/2024	0.0'	CADMIUM	(mg/kg)	0.311
CR(VI)	03/04/2024	0.0'	CHROMIUM (VI)	(mg/kg)	<-0.30
CU	03/04/2024	0.0'	COPPER	(mg/kg)	2.7
PB	03/04/2024	0.0'	LEAD	(mg/kg)	14.5
NI	03/04/2024	0.0'	NICKEL	(mg/kg)	2.63
SE	03/04/2024	0.0'	SELENIUM	(mg/kg)	0.308
AG	03/04/2024	0.0'	SILVER	(mg/kg)	0.0816
Z	03/04/2024	0.0'	ZINC	(mg/kg)	9.89

**Figure 5  
BACKGROUND SAMPLE SOIL CHEMISTRY MAP**

**NOBLE ~ HOWARD USX A 09-19 TANK**

NWNW Sec. 9, T6N, R64W, 6th PM  
Weld County, Colorado  
40.504470°, -104.563232°

Project No. <b>CO24-052</b>	API #	Facility # <b>423216</b>	
Date <b>8/28/24</b>	Remediation # <b>32243</b>	Filename <b>24052Q</b>	



**Description:**

#1 Howard A09-19 Facility - Site Sign

# Photo Log



***Description:***

#2 Howard A09-19 Facility - PWV Excavation Facing North

# Photo Log



***Description:***

#3 Howard A09-19 Facility - ECD

# Photo Log



***Description:***

#4 Howard A09-19 Facility - ECD

# Photo Log



***Description:***

#6 Howard A09-19 Facility - Separator Excavation

# Photo Log



**Description:**

#7 Howard A09-19 Facility - Separator Excavation



***Description:***

#8 Howard A09-19 Facility - Separator Excavation

# Photo Log



**Description:**

#9 Howard A09-19 Facility - ECD Pad and Flowline Headed East

# Photo Log



***Description:***

#10 Howard A09-19 Facility - ECD

# Photo Log



***Description:***

#11 Howard A09-19 Facility - PWV Excavation Facing South

# Photo Log



**Description:**

#12 Howard A09-19 Facility - AST Footprints

# Photo Log



**Description:**

#13 Howard A09-19 Facility - MH