

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
MCKAY FEDERAL T7N-R64W-S2 L01, WELD COUNTY, COLORADO
REM # 29868

Sample ID	Sample Date	Depth	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
AST01 - 0.5FT	10/16/2024	0.5ft	40.5969874	-104.51812	0.8	0.0
PWV B Wall - 4FT	10/16/2024	4ft	40.5966211	-104.51764	-	0.7
PWV S Wall - 3FT	10/16/2024	3ft	40.5966045	-104.51764	-	1.3
SEP DL - 3FT	10/16/2024	3ft	40.5969347	-104.51804	0.9	1.8
AST02 - 0.5FT	10/17/2024	0.5ft	40.5963438	-104.51768	-	0.0
AST03 - 0.5FT	10/17/2024	0.5ft	40.5963796	-104.51768	-	0.0
AST04 - 0.5FT	10/17/2024	0.5ft	40.5964286	-104.51768	-	0.0
AST05 - 0.5FT	10/17/2024	0.5ft	40.5964652	-104.51769	0.9	0.0
AST06 - 0.5FT	10/17/2024	0.5ft	40.596511	-104.517692	0.8	1.9
AST07 - 0.5FT	10/17/2024	0.5ft	40.596555	-104.517686	-	0.0
AST08 - 0.5FT	10/17/2024	0.5ft	40.596596	-104.517693	-	0.0
AST09 - 0.5FT	10/17/2024	0.5ft	40.596636	-104.517700	-	0.0
AST10 - 0.5FT	10/17/2024	0.5ft	40.596675	-104.517700	-	0.0
AST11 - 0.5FT	10/17/2024	0.5ft	40.596717	-104.517703	-	0.0
AST12 - 0.5FT	10/17/2024	0.5ft	40.596758	-104.517707	-	0.1

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

 = 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 100322
MCKAY FEDERAL T7N-R64W-S2 L01, WELD COUNTY, COLORADO
REM # 29868

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 - 0.5FT	10/16/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV B Wall - 4FT	10/16/2024	4ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
PWV S Wall - 3FT	10/16/2024	3ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	64	<0.50	64	<50
SEP DL - 3FT	10/16/2024	3ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	224	<0.50	160	64
AST02 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST03 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST04 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST05 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST06 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST07 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST08 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST09 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST10 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST11 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
AST12 - 0.5FT	10/17/2024	0.5ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

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

= 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 100322
MCKAY FEDERAL T7N-R64W-S2 L01, WELD COUNTY, COLORADO
REM # 29868

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 - 0.5FT	10/16/2024	0.5ft	<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 Wall - 4FT	10/16/2024	4ft	<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 Wall - 3FT	10/16/2024	3ft	<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
SEP DL - 3FT	10/16/2024	3ft	<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	0.0115
AST02 - 0.5FT	10/17/2024	0.5ft	<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 - 0.5FT	10/17/2024	0.5ft	<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 - 0.5FT	10/17/2024	0.5ft	<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
AST05 - 0.5FT	10/17/2024	0.5ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0114	<0.00500	<0.00500	0.00931	<0.00500
AST06 - 0.5FT	10/17/2024	0.5ft	<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
AST07 - 0.5FT	10/17/2024	0.5ft	<0.00500	<0.00500	0.00522	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00538	0.00549
AST08 - 0.5FT	10/17/2024	0.5ft	<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
AST09 - 0.5FT	10/17/2024	0.5ft	<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
AST10 - 0.5FT	10/17/2024	0.5ft	<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
AST11 - 0.5FT	10/17/2024	0.5ft	<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
AST12 - 0.5FT	10/17/2024	0.5ft	<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

= 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 100322
MCKAY FEDERAL T7N-R64W-S2 L01, WELD COUNTY, COLORADO
REM # 29868

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 - 0.5FT	10/16/2024	0.5ft	8.70	0.142	0.0213	<2.00
PWV B Wall - 4FT	10/16/2024	4ft	9.09	0.483	4.30	<2.00
PWV S Wall - 3FT	10/16/2024	3ft	8.45	0.234	0.0968	<2.00
SEP DL - 3FT	10/16/2024	3ft	9.42	0.425	2.68	<2.00
AST02 - 0.5FT	10/17/2024	0.5ft	8.69	0.178	0.0934	<2.00
AST03 - 0.5FT	10/17/2024	0.5ft	8.71	0.118	0.0415	<2.00
AST04 - 0.5FT	10/17/2024	0.5ft	8.81	0.130	0.171	<2.00
AST05 - 0.5FT	10/17/2024	0.5ft	8.76	0.156	0.121	<2.00
AST06 - 0.5FT	10/17/2024	0.5ft	8.90	0.283	1.03	<2.00
AST07 - 0.5FT	10/17/2024	0.5ft	7.99	1.65	1.21	<2.00
AST08 - 0.5FT	10/17/2024	0.5ft	8.56	0.324	0.883	<2.00
AST09 - 0.5FT	10/17/2024	0.5ft	8.53	0.215	0.340	<2.00
AST10 - 0.5FT	10/17/2024	0.5ft	8.54	0.167	0.0888	<2.00
AST11 - 0.5FT	10/17/2024	0.5ft	8.64	0.172	0.214	<2.00
AST12 - 0.5FT	10/17/2024	0.5ft	8.66	0.202	0.292	<2.00

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

= 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 100322
MCKAY FEDERAL T7N-R64W-S2 L01, WELD COUNTY, COLORADO
REM # 29868

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 - 0.5FT	10/16/2024	0.5ft	2.34	99.1	<0.200	<0.30	6.73	7.19	7.40	<0.260	0.0291	27.6
PWV B Wall - 4FT	10/16/2024	4ft	2.21	58.5	<0.200	<0.30	4.61	6.40	5.03	<0.260	0.0220	20.6
PWV S Wall - 3FT	10/16/2024	3ft	2.49	125	<0.200	<0.30	8.06	6.98	7.15	<0.260	0.0269	29.7
SEP DL - 3FT	10/16/2024	3ft	2.58	82.0	0.203	<0.30	8.48	7.55	7.97	<0.260	0.0250	32.0
AST02 - 0.5FT	10/17/2024	0.5ft	0.876	66.8	<0.200	<0.30	1.65	4.67	1.69	<0.260	0.142	6.33
AST03 - 0.5FT	10/17/2024	0.5ft	0.973	59.1	<0.200	<0.30	1.93	5.29	1.88	<0.260	0.123	7.28
AST04 - 0.5FT	10/17/2024	0.5ft	0.819	63.5	<0.200	<0.30	1.74	4.74	1.61	<0.260	0.108	6.32
AST05 - 0.5FT	10/17/2024	0.5ft	0.983	105	<0.200	<0.30	2.11	6.30	2.11	<0.260	0.116	7.99
AST06 - 0.5FT	10/17/2024	0.5ft	1.67	336	0.336	<0.30	3.96	8.79	3.49	0.795	0.126	13.4
AST07 - 0.5FT	10/17/2024	0.5ft	1.33	295	0.242	<0.30	3.51	7.48	3.04	0.452	0.111	10.5
AST08 - 0.5FT	10/17/2024	0.5ft	1.06	152	<0.200	<0.30	2.22	6.26	2.08	<0.260	0.116	8.12
AST09 - 0.5FT	10/17/2024	0.5ft	1.01	91.8	<0.200	<0.30	2.10	6.88	1.96	<0.260	0.0921	7.49
AST10 - 0.5FT	10/17/2024	0.5ft	0.923	194	<0.200	<0.30	2.00	5.97	1.85	<0.260	0.0919	6.84
AST11 - 0.5FT	10/17/2024	0.5ft	1.04	93.5	<0.200	<0.30	2.00	5.86	1.99	<0.260	0.0770	6.92
AST12 - 0.5FT	10/17/2024	0.5ft	0.87	59.7	<0.200	<0.30	1.90	4.10	1.53	<0.260	0.0579	6.93

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)

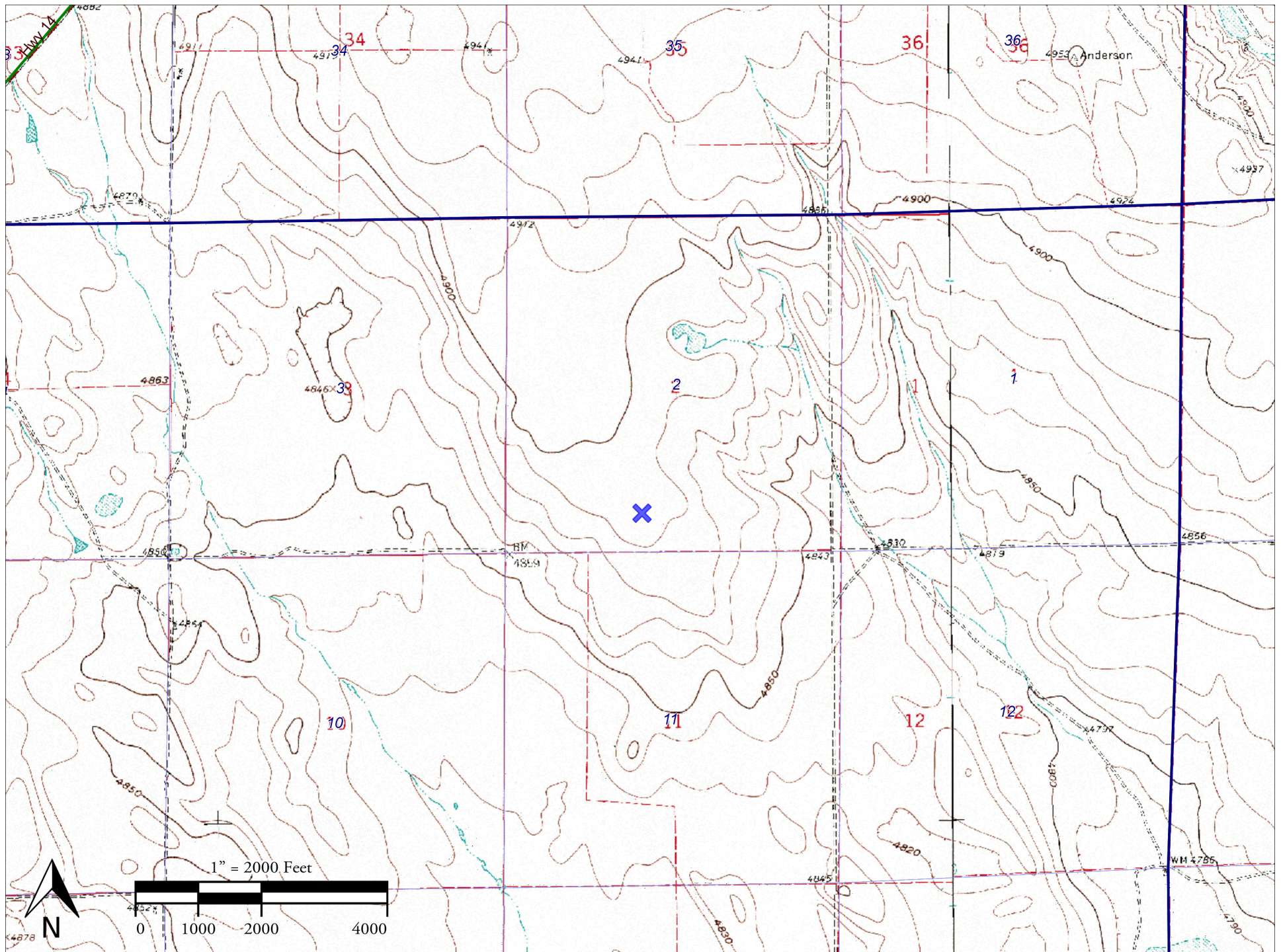
* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

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

= Material excavated and transported off site for disposal.

Noble - McKay Fed T7N-R64W-S2 L01



McKay Fed T7N-R64W-S2 L01

SESEW, Sec. 2, TWP 7N, RNG 64W
Facility ID: 416847
40.5964652, -104.51769
Remediation Project #: 29868

Legend

Sample Locations

Impacted Loaction



Proposed
Excavation:
10'x10'x1' deep
(not to scale)



Photo Log



Description:

#1- AST01-0.5FT - No visual staining or odor

Photo Log



Description:

#2- AST02-0.5FT - No visual staining or odor

Photo Log



Description:

#3- AST03-0.5FT - No visual staining or odor

Photo Log



Description:

#4- AST04-0.5FT - No visual staining or odor

Photo Log



Description:

#5- AST05-0.5FT - No visual staining or odor

Photo Log



Description:

#6- AST06-0.5FT - Visual staining, no odor

Photo Log



Description:

#7- AST07-0.5FT - No visual staining or odor

Photo Log



Description:

#8- AST08-0.5FT - No visual staining or odor

Photo Log



Description:

#9- AST09-0.5FT - No visual staining or odor

Photo Log



Description:

#10- AST10-0.5FT - No visual staining or odor

Photo Log



Description:

#11- AST11-0.5FT - No visual staining or odor

Photo Log



Description:

#12- AST12-0.5FT - No visual staining or odor



Description:

#13- PWV N WALL-3FT - No visual staining or odor

Photo Log



Description:

#14- PWV E WALL-3FT - No visual staining or odor



Description:

#15- PWV S WALL-3FT - No visual staining or odor



Description:

#16- PWV W Wall-4FT - No visual staining or odor

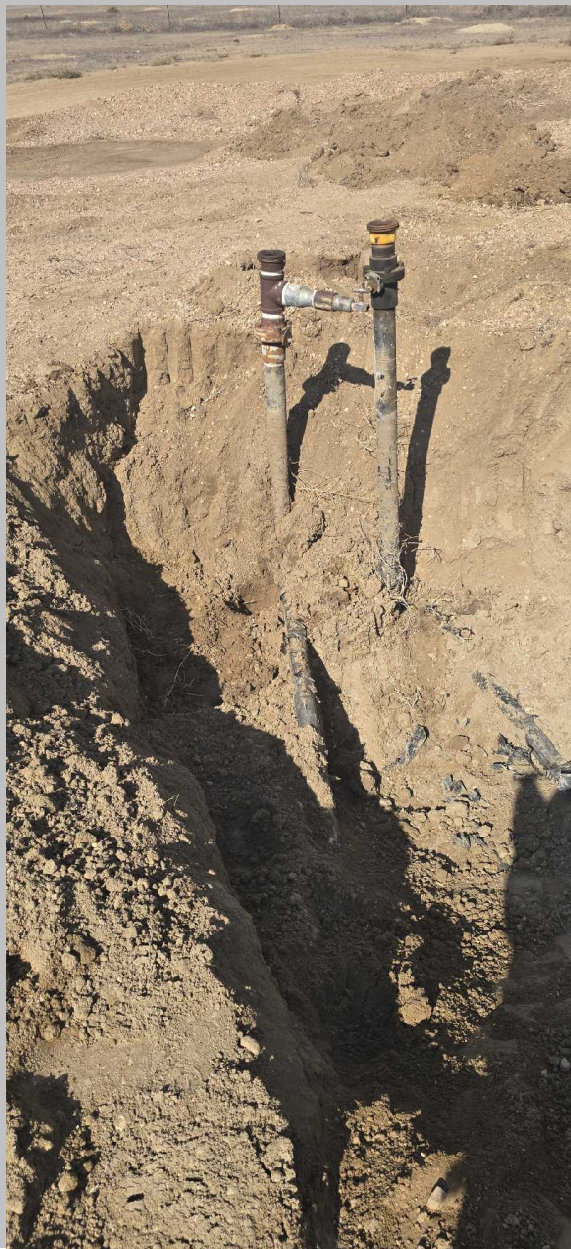
Photo Log



Description:

#17- PWV B-4FT - No visual staining or odor

Photo Log



Description:

#18- Sep DL-3FT - No visual staining or odor

Photo Log



Description:

#19- Flare-0.5FT - No visual staining or odor