




**MONTROSE ENVIRONMENTAL**


Montrose Environmental Group  
Date: 11/18/2025

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**Historical Soil Sampling Locations**  
**(09/18/2024, 11/14/2024, 07/22/2025, 07/23/2025)**  
 Gutteresen C33-31D

Noble-100322      Facility Number: 425745  
 NWSW/S33/T4N/R64W      REM Number: 33267  
 Weld County, Colorado      API Number: 05-123-34506

Figure 1



0    46    92    180    280  
Feet



Coord. Sys.: GCS North American 1983

TABLE 1  
FIELD DATA SUMMARY TABLE  
OPERATOR - NOBLE 100322  
GUTTERSEN C33-31D, WELD COUNTY, COLORADO  
REM # 33267

Sample ID	Sample Date	Depth (ft)	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
WH01@6	9/18/2024	6	40.26855700	-104.56452400	NC	0.6
FLR01@4	9/18/2024	4	40.26857100	-104.56454300	NC	0.4
WH01-S@4	9/18/2024	4	40.26854400	-104.56451200	NC	0.6
WH01-W@4	9/18/2024	4	40.26854800	-104.56454500	NC	0.7
WH01-E@4	9/18/2024	4	40.26856600	-104.56450200	NC	0.5
FL01R-W@3'	11/14/2024	3	40.26855700	-104.56452780	1.0	0.2
BKG01@0-6 <sup>1</sup>	11/14/2024	0-0.5	40.26850086	-104.56489800	0.8	0.1
BKG01@2.5 <sup>1</sup>	11/14/2024	2.5	40.26850086	-104.56489800	0.8	0.0
BKG01@3 <sup>1</sup>	11/14/2024	3	40.26850086	-104.56489800	0.8	0.2
BKG01@4 <sup>1</sup>	11/14/2024	4	40.26850086	-104.56489800	0.8	0.1
BKG02@0.5 <sup>2</sup>	7/22/25	0.5	40.26803420	-104.56377430	1.0	0.0
BKG02@2.5 <sup>2</sup>	7/22/25	2.5	40.26803420	-104.56377430	1.0	0.0
BKG02@3 <sup>2</sup>	7/22/25	3	40.26803420	-104.56377430	1.0	0.0
BKG02@4 <sup>2</sup>	7/22/25	4	40.26803420	-104.56377430	1.0	0.0
BKG02@5 <sup>2</sup>	7/22/25	5	40.26803420	-104.56377430	1.0	0.0
BKG02@6 <sup>2</sup>	7/22/25	6	40.26803420	-104.56377430	1.0	0.0
BKG03@0.5 <sup>2</sup>	7/22/25	0.5	40.26794650	-104.56377430	1.2	0.0
BKG03@2.5 <sup>2</sup>	7/22/25	2.5	40.26794650	-104.56377430	1.2	0.0
BKG03@3 <sup>2</sup>	7/22/25	3	40.26794650	-104.56377430	1.2	0.0
BKG03@4 <sup>2</sup>	7/22/25	4	40.26794650	-104.56377430	1.2	0.0
BKG03@5 <sup>2</sup>	7/22/25	5	40.26794650	-104.56377430	1.2	0.0
BKG03@6 <sup>2</sup>	7/22/25	6	40.26794650	-104.56377430	1.2	0.0
BKG04@0.5 <sup>2</sup>	7/23/25	0.5	40.26734270	-104.56377930	1.3	0.0
BKG04@2.5 <sup>2</sup>	7/23/25	2.5	40.26734270	-104.56377930	1.3	0.0
BKG04@3 <sup>2</sup>	7/23/25	3	40.26734270	-104.56377930	1.3	0.2
BKG04@4 <sup>2</sup>	7/23/25	4	40.26734270	-104.56377930	1.3	0.3
BKG04@5 <sup>2</sup>	7/23/25	5	40.26734270	-104.56377930	1.3	0.1
BKG04@6 <sup>2</sup>	7/23/25	6	40.26734270	-104.56377930	1.3	0.0
BKG05@0.5 <sup>2</sup>	7/23/25	0.5	40.26722550	-104.56377170	1.1	0.0
BKG05@2.5 <sup>2</sup>	7/23/25	2.5	40.26722550	-104.56377170	1.1	0.0
BKG05@3 <sup>2</sup>	7/23/25	3	40.26722550	-104.56377170	1.1	0.1
BKG05@4 <sup>2</sup>	7/23/25	4	40.26722550	-104.56377170	1.1	0.1
BKG05@5 <sup>2</sup>	7/23/25	5	40.26722550	-104.56377170	1.1	0.0
BKG05@6 <sup>2</sup>	7/23/25	6	40.26722550	-104.56377170	1.1	0.1
BKG06@0.5 <sup>2</sup>	7/23/25	0.5	40.26712980	-104.56374460	0.9	0.1
BKG06@2.5 <sup>2</sup>	7/23/25	2.5	40.26712980	-104.56374460	0.9	0.1
BKG06@3 <sup>2</sup>	7/23/25	3	40.26712980	-104.56374460	0.9	0.6
BKG06@4 <sup>2</sup>	7/23/25	4	40.26712980	-104.56374460	0.9	0.1
BKG06@5 <sup>2</sup>	7/23/25	5	40.26712980	-104.56374460	0.9	0.3
BKG06@6 <sup>2</sup>	7/23/25	6	40.26712980	-104.56374460	0.9	0.0

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).

<sup>1</sup>Background samples collected under the facility decommissioning Gutteresen C33-32 Tank REM# 37759

<sup>2</sup>Background samples collected under the Gutteresen C33-32 WH/FL REM# 33271

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  
GUTTERSEN C33-31D, WELD COUNTY, COLORADO  
REM # 33267

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**		
WH01@6	9/18/2024	6	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.0020	<500.000	<0.200	<25.0	<100
FLR01@4	9/18/2024	4	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.0020	258.100	<0.200	46.1	212
FL01R-W@3'	11/14/2024	3	<0.00200	<0.00500	<0.00500	<0.10000	<0.00500	<0.00500	<0.0038	<500.000	<0.500	<50.0	<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
- (<) = 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  
OPERATOR - NOBLE 100322  
GUTTERSEN C33-31D, WELD COUNTY, COLORADO  
REM # 33267

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
WH01@6	9/18/2024	6	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.002	<0.002
FLR01@4	9/18/2024	4	<0.020	<0.020	<0.005	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.002	<0.002
FL01R-W@3'	11/14/2024	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

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
- (<) = 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 4  
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION  
OPERATOR - NOBLE 100322  
GUTTERSEN C33-31D, WELD COUNTY, COLORADO  
REM # 33267

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
WH01@6	9/18/2024	6	<b>8.33</b>	0.368	0.740	<0.101
FLR01@4	9/18/2024	4	8.26	0.674	1.190	0.230
FL01R-W@3 <sup>1</sup>	11/14/2024	3	8.00	0.635	0.626	<2.000
BKG01@0-6 <sup>n1</sup>	11/14/2024	0-0.5	<b>8.58</b>	0.209	0.058	<2.000
BKG01@2.5 <sup>1</sup>	11/14/2024	2.5	<b>5.63</b>	0.838	0.447	<2.000
BKG01@3 <sup>1</sup>	11/14/2024	3	<b>5.25</b>	1.450	0.638	<2.000
BKG01@4 <sup>1</sup>	11/14/2024	4	7.78	0.910	0.924	<2.000
BKG02@0.5 <sup>2</sup>	7/22/25	0.5	7.54	0.341	0.369	0.100
BKG02@2.5 <sup>2</sup>	7/22/25	2.5	<b>8.91</b>	0.990	4.530	0.131
BKG02@3 <sup>2</sup>	7/22/25	3	<b>8.98</b>	2.710	<b>23.600</b>	0.108
BKG02@4 <sup>2</sup>	7/22/25	4	<b>8.63</b>	3.150	<b>15.100</b>	<0.100
BKG02@5 <sup>2</sup>	7/22/25	5	<b>8.41</b>	2.130	<b>9.650</b>	<0.100
BKG02@6 <sup>2</sup>	7/22/25	6	<b>8.62</b>	0.853	4.690	<0.100
BKG03@0.5 <sup>2</sup>	7/22/25	0.5	7.79	0.363	0.551	0.129
BKG03@2.5 <sup>2</sup>	7/22/25	2.5	<b>8.69</b>	<b>4.880</b>	<b>22.500</b>	0.241
BKG03@3 <sup>2</sup>	7/22/25	3	<b>8.48</b>	<b>4.860</b>	<b>17.200</b>	<0.100
BKG03@4 <sup>2</sup>	7/22/25	4	<b>8.70</b>	3.970	<b>21.300</b>	0.105
BKG03@5 <sup>2</sup>	7/22/25	5	<b>8.60</b>	0.884	<b>6.210</b>	<0.100
BKG03@6 <sup>2</sup>	7/22/25	6	<b>8.45</b>	1.340	5.400	<0.100
BKG04@0.5 <sup>2</sup>	7/23/25	0.5	6.79	0.281	0.084	<0.100
BKG04@2.5 <sup>2</sup>	7/23/25	2.5	7.03	0.218	0.100	<0.100
BKG04@3 <sup>2</sup>	7/23/25	3	7.43	0.196	0.130	<0.100
BKG04@4 <sup>2</sup>	7/23/25	4	7.61	0.333	0.414	<0.100
BKG04@5 <sup>2</sup>	7/23/25	5	7.69	0.718	1.810	<0.100
BKG04@6 <sup>2</sup>	7/23/25	6	7.82	0.980	4.350	<0.100
BKG05@0.5 <sup>2</sup>	7/23/25	0.5	7.03	0.169	0.323	<0.100
BKG05@2.5 <sup>2</sup>	7/23/25	2.5	7.22	0.171	0.118	<0.100
BKG05@3 <sup>2</sup>	7/23/25	3	7.19	0.147	0.155	<0.100
BKG05@4 <sup>2</sup>	7/23/25	4	7.10	0.149	0.320	<0.100
BKG05@5 <sup>2</sup>	7/23/25	5	8.11	0.349	1.110	<0.100
BKG05@6 <sup>2</sup>	7/23/25	6	8.17	0.439	3.100	<0.100
BKG06@0.5 <sup>2</sup>	7/23/25	0.5	7.08	0.224	0.121	<0.100
BKG06@2.5 <sup>2</sup>	7/23/25	2.5	7.38	0.207	0.082	<0.100
BKG06@3 <sup>2</sup>	7/23/25	3	7.48	0.162	0.102	<0.100
BKG06@4 <sup>2</sup>	7/23/25	4	7.10	0.138	0.162	<0.100
BKG06@5 <sup>2</sup>	7/23/25	5	7.50	0.094	0.328	<0.100
BKG06@6 <sup>2</sup>	7/23/25	6	8.26	0.224	0.495	<0.100
Maximum Background Concentration			8.98	4.880	23.600	0.241

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.

<sup>1</sup>Background samples collected under the facility decommissioning Gutteresen C33-32 Tank REM# 37759

<sup>2</sup>Background samples collected under the Gutteresen C33-32 WH/FL REM# 33271

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

NA - Not analyzed

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
OPERATOR - NOBLE 100322  
GUTTERSEN C33-31D, WELD COUNTY, COLORADO  
REM # 33267

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
WH01@6	9/18/2024	6	1.760	52.2	<0.0979	<0.244	<9.79	3.69	4.55	<0.255	<0.0979	<36.2
FLR01@4	9/18/2024	4	2.160	78.4	0.1400	<0.244	<9.12	4.82	5.39	<0.237	<0.0912	<33.7
FL01R-W@3'	11/14/2024	3	0.639	92.9	<0.200	<0.300	2.18	4.92	1.50	<0.260	0.0240	7.31
BKG01@0-6 <sup>1</sup>	11/14/2024	0-0.5	2.590	68.8	<0.2000	<0.300	4.42	5.77	3.74	<0.260	0.0206	16.4
BKG01@2.5 <sup>1</sup>	11/14/2024	2.5	1.280	26.8	<0.2000	<0.300	4.78	4.99	2.19	<0.260	<0.0200	16.6
BKG01@3 <sup>1</sup>	11/14/2024	3	1.470	31.6	0.2090	<0.300	6.27	5.46	2.51	<0.260	0.0202	19.6
BKG01@4 <sup>1</sup>	11/14/2024	4	2.590	106.0	0.2110	<0.300	4.91	5.81	3.94	<0.260	0.0257	20.1
BKG02@0.5 <sup>2</sup>	7/22/25	0.5	2.750	38.3	0.1370	<0.200	<10.00	<10.00	<10.00	0.372	<0.5000	<50.0
BKG02@2.5 <sup>2</sup>	7/22/25	2.5	2.970	65.2	0.1110	<0.200	<10.00	<10.00	<10.00	0.296	<0.5000	<50.0
BKG02@3 <sup>2</sup>	7/22/25	3	2.170	58.6	<0.1000	<0.200	<10.00	<10.00	<10.00	0.39	<0.5000	<50.0
BKG02@4 <sup>2</sup>	7/22/25	4	2.420	72.6	<0.1000	<0.200	<10.00	<10.00	<10.00	0.465	<0.5000	<50.0
BKG02@5 <sup>2</sup>	7/22/25	5	1.500	75.7	<0.1000	<0.200	<10.00	<10.00	<10.00	0.409	<0.5000	<50.0
BKG02@6 <sup>2</sup>	7/22/25	6	0.740	36.5	<0.1000	<0.200	<10.00	<10.00	<10.00	0.224	<0.5000	<50.0
BKG03@0.5 <sup>2</sup>	7/22/25	0.5	1.660	34.0	<0.1000	<0.200	<10.00	<10.00	<10.00	0.314	<0.5000	<50.0
BKG03@2.5 <sup>2</sup>	7/22/25	2.5	1.890	44.1	<0.1000	<0.200	<10.00	<10.00	<10.00	0.348	<0.5000	<50.0
BKG03@3 <sup>2</sup>	7/22/25	3	1.920	67.1	<0.1000	<0.200	<10.00	<10.00	<10.00	0.359	<0.5000	<50.0
BKG03@4 <sup>2</sup>	7/22/25	4	1.650	114.0	0.1030	<0.200	<10.00	<10.00	<10.00	0.405	<0.5000	<50.0
BKG03@5 <sup>2</sup>	7/22/25	5	1.290	35.1	<0.1000	<0.200	<10.00	<10.00	<10.00	0.287	<0.5000	<50.0
BKG03@6 <sup>2</sup>	7/22/25	6	0.750	38.0	<0.1000	<0.200	<10.00	<10.00	<10.00	0.215	<0.5000	<50.0
BKG04@0.5 <sup>2</sup>	7/23/25	0.5	1.400	30.4	<0.1000	<0.200	<10.00	<10.00	<10.00	0.484	<0.5000	<50.0
BKG04@2.5 <sup>2</sup>	7/23/25	2.5	1.370	40.5	<0.1000	<0.200	<14.30	<14.30	<14.30	0.54	<0.7140	<71.4
BKG04@3 <sup>2</sup>	7/23/25	3	1.400	35.4	<0.1000	<0.200	<10.00	<10.00	<10.00	0.534	<0.5000	<50.0
BKG04@4 <sup>2</sup>	7/23/25	4	1.950	50.6	<0.1000	<0.200	<10.00	<10.00	<10.00	0.529	<0.5000	<50.0
BKG04@5 <sup>2</sup>	7/23/25	5	1.350	57.7	<0.1000	<0.200	<10.00	<10.00	<10.00	0.124	<0.5000	<50.0
BKG04@6 <sup>2</sup>	7/23/25	6	1.980	58.1	<0.1000	NA	<10.00	<10.00	<10.00	0.777	<0.5000	<50.0
BKG05@0.5 <sup>2</sup>	7/23/25	0.5	1.300	27.3	0.1330	<0.200	<10.00	<10.00	<10.00	0.519	<0.5000	<50.0
BKG05@2.5 <sup>2</sup>	7/23/25	2.5	1.350	41.0	<0.1000	<0.200	<10.00	<10.00	<10.00	0.413	<0.5000	<50.0
BKG05@3 <sup>2</sup>	7/23/25	3	1.530	50.8	<0.1000	<0.200	<10.00	<10.00	<10.00	0.463	<0.5000	<50.0
BKG05@4 <sup>2</sup>	7/23/25	4	1.690	52.8	<0.1000	<0.200	<10.00	<10.00	<10.00	0.478	<0.5000	<50.0
BKG05@5 <sup>2</sup>	7/23/25	5	1.780	50.5	<0.1000	<0.200	<10.00	<10.00	<10.00	0.43	<0.5000	<50.0
BKG05@6 <sup>2</sup>	7/23/25	6	1.650	53.9	<0.1000	<0.200	<10.00	<10.00	<10.00	0.629	<0.5000	<50.0
BKG06@0.5 <sup>2</sup>	7/23/25	0.5	1.380	29.9	<0.1000	<0.200	<10.00	<10.00	<10.00	0.479	<0.5000	<50.0
BKG06@2.5 <sup>2</sup>	7/23/25	2.5	1.180	31.9	<0.1000	<0.200	<10.00	<10.00	<10.00	<0.100	<0.5000	<50.0
BKG06@3 <sup>2</sup>	7/23/25	3	1.450	42.6	<0.1000	<0.200	<10.00	<10.00	<10.00	0.423	<0.5000	<50.0
BKG06@4 <sup>2</sup>	7/23/25	4	1.200	40.6	<0.1000	<0.200	<10.00	<10.00	<10.00	<0.100	<0.5000	<50.0
BKG06@5 <sup>2</sup>	7/23/25	5	2.380	63.0	<0.1000	<0.200	<10.00	<10.00	<10.00	0.163	<0.5000	<50.0
BKG06@6 <sup>2</sup>	7/23/25	6	1.700	58.0	<0.1000	<0.200	<10.00	<10.00	<10.00	<0.100	<0.5000	<50.0
1.25x Maximum Background Concentration			3.713	142.5	0.264	-	7.84	7.26	4.93	0.971	0.03	25.13

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. Non-detect background results accounted for in the highest background concentration by using the reporting limit.

<sup>1</sup>Background samples collected under the facility decommissioning Gutteresen C33-32 Tank REM# 37759

<sup>2</sup>Background samples collected under the Gutteresen C33-32 WH/FL REM# 33271

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

NA - Not analyzed