









**Photographic Log**

					
<b>Equipment ID:</b> AST01@0-6"		<b>Equipment Type:</b> Above Ground Storage Tank	<b>Equipment ID:</b> VRU01@0-6"		<b>Equipment Type:</b> Vaper Recovery Unit
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Crude Oil	<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b>
<b>Notes/Conditions:</b> SW.Well graded, poorly sorted, brown, fine to course, not odor no stain, moist			<b>Notes/Conditions:</b> SW.Well graded, poorly sorted, brown, fine to course, not odor no stain, moist		



**Photographic Log**

					
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water
<b>Notes/Conditions:</b> SILTY SAND,BROWN,FINE GRAINED,MOIST, POORLEY GRADED, NO ODOR NO STAIN			<b>Notes/Conditions:</b> SILTY SAND,BROWN,FINE GRAINED,MOIST, POORLEY GRADED, NO ODOR NO STAIN		


**Photographic Log**

					
<b>Equipment ID:</b> SEP01-DL-E@1.5'	<b>Equipment Type:</b>		<b>Equipment ID:</b> SEP01-DL-S@1.5'	<b>Equipment Type:</b> Dump Line	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water
<b>Notes/Conditions:</b> SILTY SAND,BROWN,FINE GRAINED,MOIST, POORLEY GRADED, NO ODOR NO STAIN			<b>Notes/Conditions:</b> SILTY SAND,BROWN,FINE GRAINED,MOIST, POORLEY GRADED, NO ODOR NO STAIN		

**Photographic Log**

					
<b>Equipment ID:</b> FLARE01 @0-6"	<b>Equipment Type:</b> Emission Control Device		<b>Equipment ID:</b> MH01 @0-6"	<b>Equipment Type:</b> METER HOUSE	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Condensate	<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b>
<b>Notes/Conditions:</b> SW.Well graded, poorly sorted, brown, fine to course, not odor no stain, moist			<b>Notes/Conditions:</b> SW.Well graded, poorly sorted, brown, fine to course, not odor no stain, moist		

**Photographic Log**

					
<b>Equipment ID:</b> SEP01-FL@3'	<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> BKG01@0-6",1.5',3'	<b>Equipment Type:</b>	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>
<b>Notes/Conditions:</b> SILTY SAND,BROWN,FINE GRAINED,MOIST, POORLEY GRADED, NO ODOR NO STAIN			<b>Notes/Conditions:</b> SILTY SAND,BROWN,FINE GRAINED,MOIST, POORLEY GRADED, NO ODOR NO STAIN		

**TABLE 1**  
**FIELD DATA SUMMARY TABLE**  
**PDC ENERGY, INC. - 69175**  
**DUNHAM 41-5 TANK BATTERY, WELD COUNTY, COLORADO**  
**REM # 36700**

Sample ID	Sample Date	Depth (ft. bgs)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
MH01@0-6"	09/05/24	0-0.5	40.087381	-104.455318	0.8	0.2
FLARE01@0-6"	09/05/24	0-0.5	40.087311	-104.455352	0.8	0.3
AST01@0-6"	09/05/24	0-0.5	40.087346	-104.454973	0.9	0.2
SEP01-FL@3'	09/05/24	3	40.087331	-104.455320	0.8	0.5
SEP01-DL-B@3'	09/05/24	3	40.087352	-104.455257	1	0.1
SEP01-DL-N@1.5'	09/05/24	1.5	40.087359	-104.455258	0.9	0.1
SEP01-DL-S@1.5'	09/05/24	1.5	40.087346	-104.455256	0.9	0.3
SEP01-DL-E@1.5'	09/05/24	1.5	40.087353	-104.455244	1	0.2
SEP01-DL-W@1.5'	09/05/24	1.5	40.087351	-104.455270	0.9	0.1
VRU01@0-6"	09/05/24	0-0.5	40.087322	-104.455017	1	0.3
BKG01@0-6"	09/05/24	0-0.5	40.086290	-104.454490	0.9	0.0
BKG01@1.5'	09/05/24	1.5	40.086290	-104.454490	0.9	0.0
BKG01@3'	09/05/24	3	40.086290	-104.454490	0.9	0.0

**Notes:**

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

ft. = Feet

bgs = Below ground surface

TABLE 2  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
PDC ENERGY, INC. - 69175  
DUNHAM 41-5 TANK BATTERY, WELD COUNTY, COLORADO  
REM # 36700

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**		
AST01@0-6"	09/05/24	0-0.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50
SEP01-FL@3'	09/05/24	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50
SEP01-DL-B@3'	09/05/24	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50
SEP01-DL-S@1.5'	09/05/24	1.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50	<50

**Notes:**

- Bold** values exceed the ECMC Table 915-1 limit(s).
- Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
- \*\* 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  
PDC ENERGY, INC. - 69175  
DUNHAM 41-5 TANK BATTERY, WELD COUNTY, COLORADO  
REM # 36700

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
AST01@0-6"	09/05/24	0-0.5	<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
SEP01-FL@3'	09/05/24	3	<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-B@3' <sup>[3]</sup>	09/05/24	3	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<b>0.00880</b>	0.0126
SEP01-DL-B@3' <sup>[4]</sup>	09/05/24	3	<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-S@1.5'	09/05/24	1.5	<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

**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. Batch ID #BHI0159, Lab Report 2409063
4. Batch ID #BHI0425, Lab Report 2409063R

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**  
**PDC ENERGY, INC. - 69175**  
**DUNHAM 41-5 TANK BATTERY, WELD COUNTY, COLORADO**  
**REM # 36700**

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
AST01@0-6"	09/05/24	0-0.5	7.98	0.492	0.930	<2.00
SEP01-FL@3'	09/05/24	3	<b>8.59</b>	0.398	3.26	<2.00
SEP01-DL-B@3'	09/05/24	3	8.23	0.247	0.0942	<2.00
SEP01-DL-S@1.5'	09/05/24	1.5	<b>8.38</b>	0.143	0.0358	<2.00
BKG01@0-6"	09/05/24	0-0.5	8.34	0.279	1.10	<2.00
BKG01@1.5'	09/05/24	1.5	7.93	4.62	6.51	3.24
BKG01@3'	09/05/24	3	8.20	10.2	24.9	<2.00
Maximum Background Concentration			8.34	10.2	24.9	<2.00
Mean Background Concentration			8.16	10.2	24.90	<2.00

**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  
PDC ENERGY, INC. - 69175  
DUNHAM 41-5 TANK BATTERY, WELD COUNTY, COLORADO  
REM # 36700

Sample ID	Sample Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) <sup>[4]</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	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
AST01@0-6"	09/05/24	0-0.5	<b>1.95</b>	31.4	<0.200	<0.30*	5.45	2.96	3.62	<0.260	<0.0200	12.9
SEP01-FL@3'	09/05/24	3	<b>3.08</b>	<b>84.9</b>	<b>0.450</b>	<0.30*	9.16	9.47	8.74	<0.260	0.0328	32.2
SEP01-DL-B@3'	09/05/24	3	<b>3.42</b>	67.4	<0.200	<0.30*	7.91	<b>14.5</b>	6.98	<0.260	0.0265	26.8
SEP01-DL-S@1.5'	09/05/24	1.5	<b>2.83</b>	76.7	<0.200	<0.30*	8.28	6.89	7.69	<0.260	0.0279	26.7
BKG01@0-6"	09/05/24	0-0.5	3.09	90.8	0.267	<0.30*	9.47	9.94	8.89	<0.260	0.0410	32.8
BKG01@1.5'	09/05/24	1.5	3.56	118	0.264	<0.30*	11.2	9.12	12.7	<0.260	0.0375	35.4
BKG01@3'	09/05/24	3	2.42	73.6	<0.200	<0.30*	5.97	5.79	5.86	<0.260	0.0305	21.0
Maximum Background Concentration			3.56	118	0.267	-	-	9.94	-	-	-	-
Maximum Background Concentration X 1.25			4.45	148	0.334	-	-	12.4	-	-	-	-
Mean Background Concentration			3.02	94.1	0.266	-	-	8.28	-	-	-	-
Mean Background Concentration X 1.25			3.78	118	0.332	-	-	10.4	-	-	-	-

**Notes:**

- Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
- Bold** faced values exceed the ECMC Table 915-1 limit(s) and native background concentrations.
- Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
- Compound falls within ECMC Table 915-1 Footnote 9.
- Non-detect background results accounted for in the highest background concentration by using the reporting limit.

ECMC = Energy & Carbon Management Commission

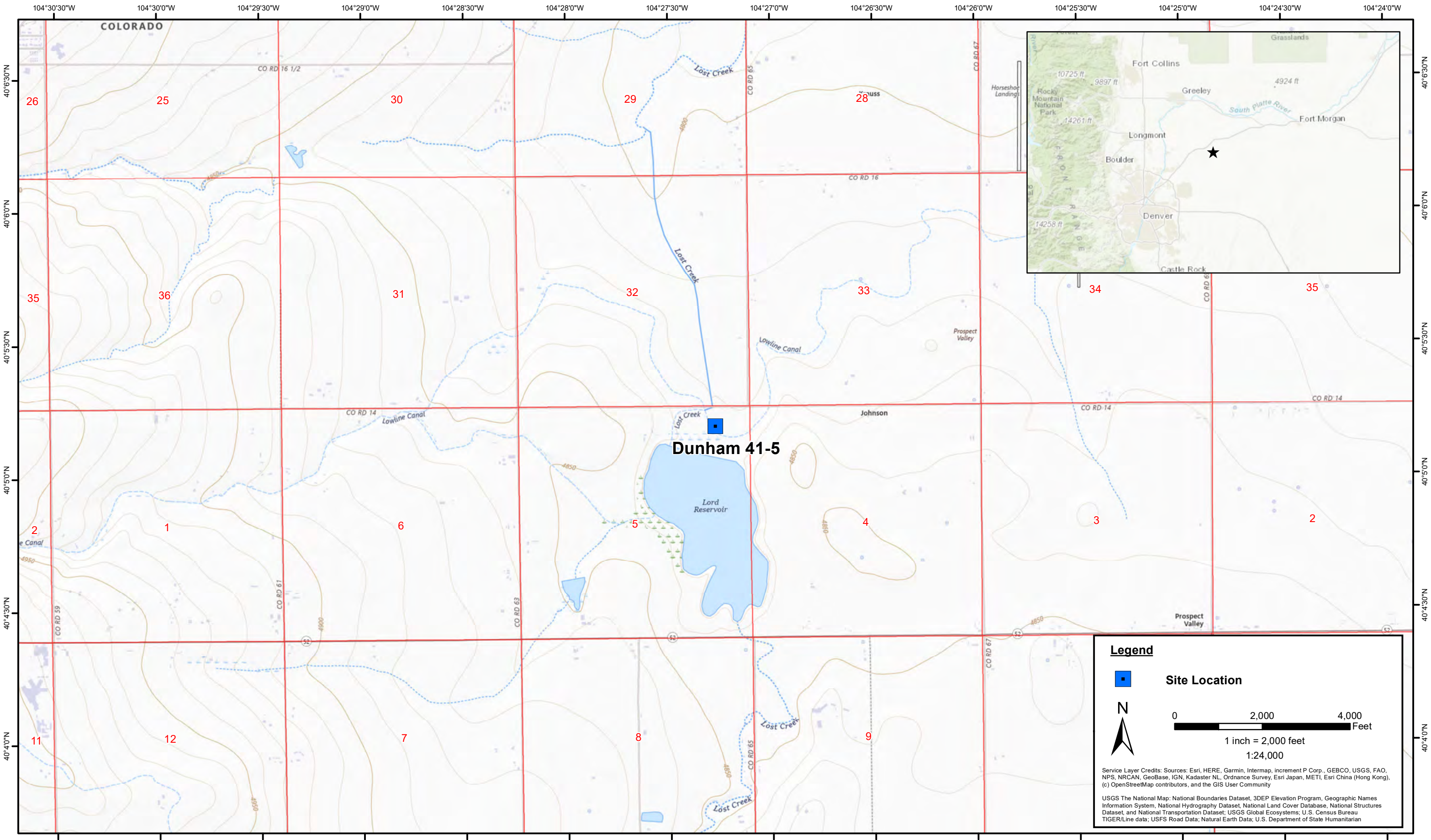
(<) = Analytical result is less than the indicated laboratory reporting limit.

mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

\* Indicates laboratory minimum detection limit in excess of SSL



DATE: October 30, 2024  
 DESIGNED BY: B. Nelson  
 DRAWN BY: J. Woffinden



**Tasman, Inc.**  
 6855 W. 119th Ave  
 Broomfield, CO 80020

**PDC Energy, Inc. – 69175 – DJ Basin**  
**Dunham 41-5**  
 NENE Sec. 5-T1S-R63W  
 Weld County, Colorado

Site Location Map

Figure  
1



**MH01@0-6"**  
 (09/05/2024)  
 PID = 0.2 ppm

**SEP01-DL-N@1.5'**  
 (09/05/2024)  
 PID = 0.1 ppm

**SEP01-DL-B@3'**  
 (09/05/2024)  
 PID = 0.1 ppm

**SEP01-DL-W@1.5'**  
 (09/05/2024)  
 PID = 0.1 ppm

**SEP01-DL-E@1.5'**  
 (09/05/2024)  
 PID = 0.2 ppm

**AST01@0-6"**  
 (09/05/2024)  
 PID = 0.2 ppm

**SEP01-FL@3'**  
 (09/05/2024)  
 PID = 0.5 ppm

**SEP01-DL-S@1.5'**  
 (09/05/2024)  
 PID = 0.3 ppm

**FLARE01@0-6"**  
 (09/05/2024)  
 PID = 0.3 ppm

**VRU01@0-6"**  
 (09/05/2024)  
 PID = 0.3 ppm

**BKG01@0-6"**  
 (09/05/2024)  
 PID = 0.0 ppm  
**BKG01@1.5'**  
 (09/05/2024)  
 PID = 0.0 ppm  
**BKG01@3'**  
 (09/05/2024)  
 PID = 0.0 ppm

DATE: October 23, 2024  
 DESIGNED BY: J. Whritenour  
 DRAWN BY: L. Reed



**PDC Energy, Inc. – 69175 – DJ Basin**  
**Dunham 41-5 Tank Battery**  
 NENE, Section 5, Township 1 North, Range 63 West  
 Weld County, Colorado

**SOIL SAMPLE LOCATION MAP (TANK BATTERY)**

**FIGURE 2**



DATE: October 30, 2024

DESIGNED BY: J. Whritenour

DRAWN BY: J. Gustafson



**PDC Energy, Inc. – 69175 – DJ Basin**  
**Dunham 41-5 Tank Battery**  
 NENE, Section 5, Township 1 North, Range 63 West  
 Weld County, Colorado

Proposed Soil Boring  
 Location Map

FIGURE  
 3