



<b>SITE NAME:</b> Former Orr State 40-36 PAD							<b>DATE:</b> 12/17/2024	<b>REM. PROJECT #:</b> 38155	<b>WEATHER:</b> Cloudy, 40s	
<b>SITE DIRECTIONS:</b> CR 25/CR62, N 0.22 mi, W into site							<b>CLIENT:</b> PDC			
<b>LEGALS AND LAT/LONG:</b> 40.443191, -104.833118							<b>TASMAN PERSONNEL:</b> Jess Groh			
<b>SOIL TYPES:</b> Lean Clay - CL							<b>SURFACE GRADIENT:</b> East			
SOIL SAMPLING							FACILITY INFRASTRUCTURE			
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo?	Grab or Lab Sample?	EQUIPMENT	Quantity	Photo?	
12/17/2024 10:35	SS01@5'	0.4	No Staining	No Odor	Yes	Lab	Above Ground Storage Tank (AST)			
12/17/2024 10:54	SS02@5'	0.2	No Staining	No Odor	Yes	On-hold	Buried or Partially Buried Vessel	1	<input checked="" type="checkbox"/>	
12/17/2024 11:03	SS03@5'	0.0	No Staining	No Odor	Yes	On-hold	Separator			
12/17/2024 11:10	SS04@5'	0.0	No Staining	No Odor	Yes	On-hold	Emission Control Device (ECD)			
12/17/2024 11:18	FS01@6'	140	HC Staining	HC Odor	Yes	Lab	Dump Line			
12/17/2024 12:05	FS01@7-8'	30	HC Staining	Slight HC Odor	Yes	Lab	Wellhead			
							Flowline			
							Other:			
							Soil Loads Removed			
							IMPACTED SOIL IDENTIFIED?			
							ESTIMATED VOLUME OF IMPACTS:			
							Date	Number	CY	
							Total Removed	0	0	
							Disposal Facility:			
							Groundwater Recovery			
							DATE GW ENCOUNTERED:	DEPTH:		
							GROUNDWATER IN CONTACT WITH IMPACTED SOIL?			
							LNAPL OR SHEEN OBSERVED ON GW?			
GROUNDWATER SAMPLING							Date	BBLs		
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?				
							Total Removed	0		
							Disposal Facility:			



# Chevron Rockies Business Unit

## Field Qualitative Criteria for ECMC Reporting Associated with the Discovery of Potentially Impacted Material

If answered **Yes** to any of the questions listed below, this may suggest the presence of potentially impacted materials as outlined in ECMC Rule 912. Out of an abundance of caution, a “Yes” response will be reported to the ECMC within 24 hours after discovery, regardless of laboratory results. **Immediately notify the RBU Remediation Team.** Include a copy of this Field Qualitative Spill Criteria Checklist in the field Report.

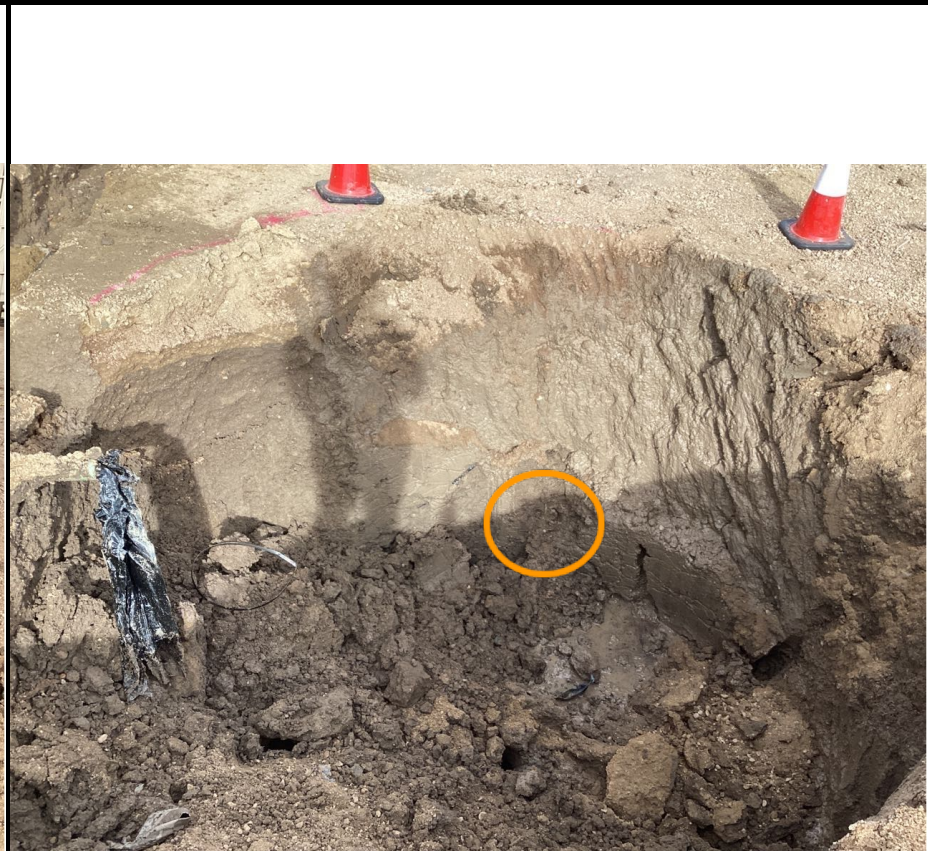
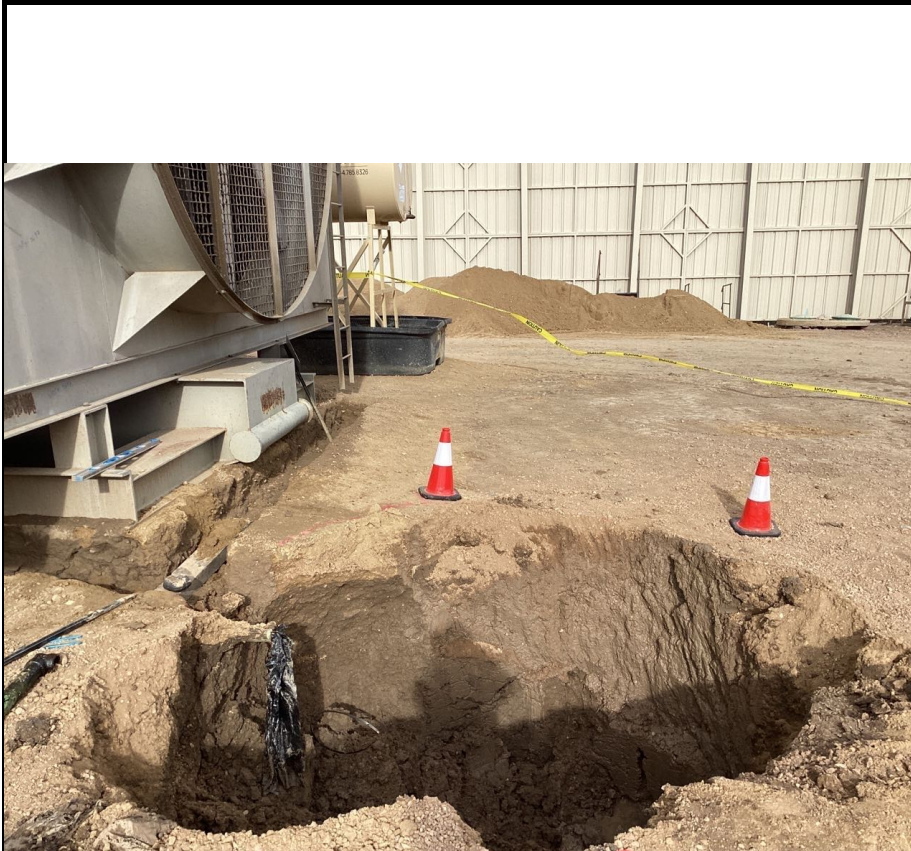
Please answer the following questions when on-site:

1. Is there visible petroleum hydrocarbon staining in the soil? Yes\_\_\_\_\_
2. Does the soil sample from the stained area have a petroleum odor? Yes\_\_\_\_\_
3. Is there a petroleum hydrocarbon sheen on the nearby surface water? No\_\_\_\_\_
4. Does there appear to be a sheen of the surface of accumulated groundwater or seeps within the excavation indicative of petroleum? No\_\_\_\_\_
5. Is stained soil in contact with groundwater? No\_\_\_\_\_

Please Include relevant photos of the site conditions for items 1-5.

Location name: Orr State 40-36 Pad

Please Circle Facility Type: Production Facility



<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> North overview			

<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> SS01 @5' North			



<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> SS02@5' East			

<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> SS03@5' South			



<b>Equipment ID:</b>		<b>Equipment Type:</b>		<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> SS04@5' West				<b>Notes/Conditions:</b> FS01@6' Base			



<b>Equipment ID:</b>		<b>Equipment Type:</b>		<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> FS01 @7-8				<b>Notes/Conditions:</b>			

**TABLE 1**  
**FIELD DATA SUMMARY TABLE**  
**PDC ENERGY, INC. - 69175**  
**FORMER ORR STATE 40-36 PAD, WELD COUNTY, COLORADO**  
**REM # 38155**

Sample ID	Sample Date	Depth (ft. bgs)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
SS01@5'	12/17/2024	5	40.443196	-104.833106	1.6	0.4
SS02@5'	12/17/2024	5	40.443182	-104.833083	1.6	0.2
SS03@5'	12/17/2024	5	40.443164	-104.833108	1.4	0.0
SS04@5'	12/17/2024	5	40.443180	-104.833126	2.0	0.0
FS01@6'	12/17/2024	6	40.443179	-104.833105	NC	140
FS01@7-8'	12/17/2024	7-8	40.443179	-104.833105	NC	30

**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 = Data not collected

= Material excavated and transported off site for disposal.

TABLE 2  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
PDC ENERGY, INC. - 69175  
FORMER ORR STATE 40-36 PAD, WELD COUNTY, COLORADO  
REM # 38155

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**		
SS01@5'	12/17/2024	5	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP
FS01@6'	12/17/2024	6	<0.0020	<0.0050	<0.0050	<0.010	<b>0.083</b>	<0.0050	<b>0.044</b>	<b>1,199</b>	19	260	<b>920</b>
FS01@7-8'	12/17/2024	7-8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<b>0.015</b>	112.1	2.1	<50	110

**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

RP = Results pending

  = Material excavated and transported off site for disposal.

TABLE 3  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
PDC ENERGY, INC. - 69175  
FORMER ORR STATE 40-36 PAD, WELD COUNTY, COLORADO  
REM # 38155

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
SS01@5'	12/17/2024	5	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP
FS01@6'	12/17/2024	6	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0106	<0.00500	<0.00500	<b>0.0670</b>	<b>0.0929</b>
FS01@7-8'	12/17/2024	7-8	<0.00500	0.0183	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0118	<0.00500	<0.00500	<b>0.0490</b>	<b>0.0442</b>

**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).
- 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  
RP = Results pending

Material excavated and transported off site for disposal.

**TABLE 4**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**PDC ENERGY, INC. - 69175**  
**FORMER ORR STATE 40-36 PAD, WELD COUNTY, COLORADO**  
**REM # 38155**

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
SS01@5'	12/17/2024	5	RP	RP	RP	RP
FS01@6'	12/17/2024	6	8.16	0.301	1.48	<2.00
FS01@7-8'	12/17/2024	7-8	8.02	0.264	0.956	<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

RP = Results pending

 = Material excavated and transported off site for disposal.

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
PDC ENERGY, INC. - 69175  
FORMER ORR STATE 40-36 PAD, WELD COUNTY, COLORADO  
REM # 38155

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
SS01@5'	12/17/2024	5	RP	RP	RP	RP	RP	RP	RP	RP	RP	RP
FS01@6'	12/17/2024	6	<b>2.44</b>	60.6	<0.200	<0.30	5.01	3.83	4.32	<0.260	0.0301	16.1
FS01@7-8'	12/17/2024	7-8	<b>5.30</b>	<b>162</b>	0.327	<0.30	7.69	9.45	8.20	<0.260	0.0649	28.1

**Notes:**

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. Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
4. Compound falls within ECMC Table 915-1 Footnote 9.
5. 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.

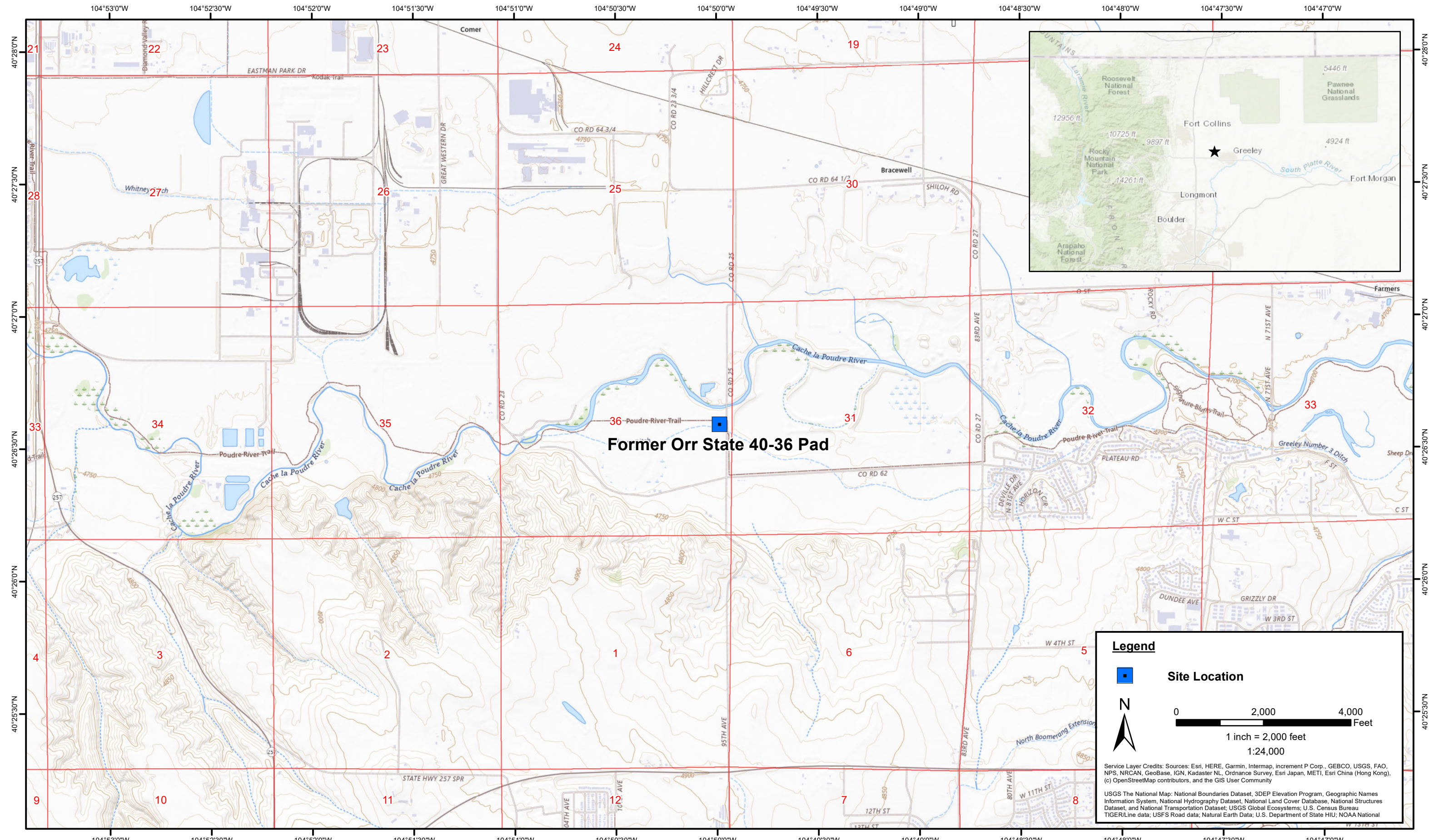
mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

RP = Results pending

= Material excavated and transported off site for disposal.



DATE: December 2024  
 DESIGNED BY: B. Nelson  
 DRAWN BY: J. Woffinden



**PDC Energy, Inc. – 69175 – DJ Basin**  
**Former Orr State 40-36 Pad**  
 NESE, Section 36, Township 6 North, Range 67 West  
 Weld County, Colorado

Site Location Map

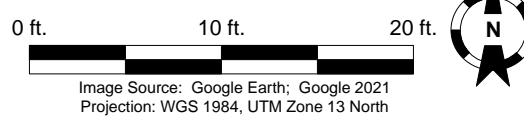
Figure  
1



- Legend**
- Soil Sample Location – Field Screen (Collected via Trimble GPS)
  - Soil Sample Location – No Exceedances (Collected via Trimble GPS)
  - Soil Sample Location – GSSL Exceedance (Collected via Trimble GPS)
  - Soil Sample Location – RSSL Exceedance (Collected via Trimble GPS)
  - Excavation Extent

- Notes**
- 1) All locations are approximate unless otherwise noted.
  - 2) Buried infrastructure has been spatially projected.

GPS – Global Positioning System  
 PID – Photoionization Detector  
 ppm – Parts per million  
 GSSLs –Protection of Groundwater Soil Screening Levels  
 RSSLs – Residential Soil Screening Levels



DATE:	December 18, 2024
DESIGNED BY:	B. Nelson
DRAWN BY:	M. Liston



**PDC Energy, Inc. – 69175 – DJ Basin**  
**Former Orr State 40-36 Pad**  
 NESE, Section 36, Township 6 North, Range 67 West  
 Weld County, Colorado

SOIL SAMPLE  
 LOCATION MAP  
 (12/17/2024)

FIGURE  
 2