

# DECOMMISSIONING REPORT BERNHARDT 21-1 FLOWLINE

ECMC REMEDIATION # 41881

Prepared for:



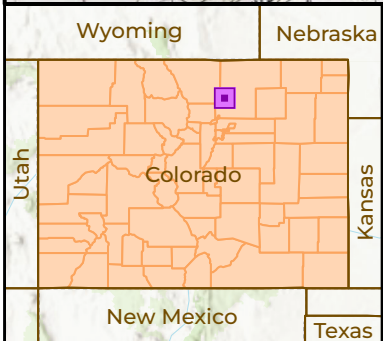
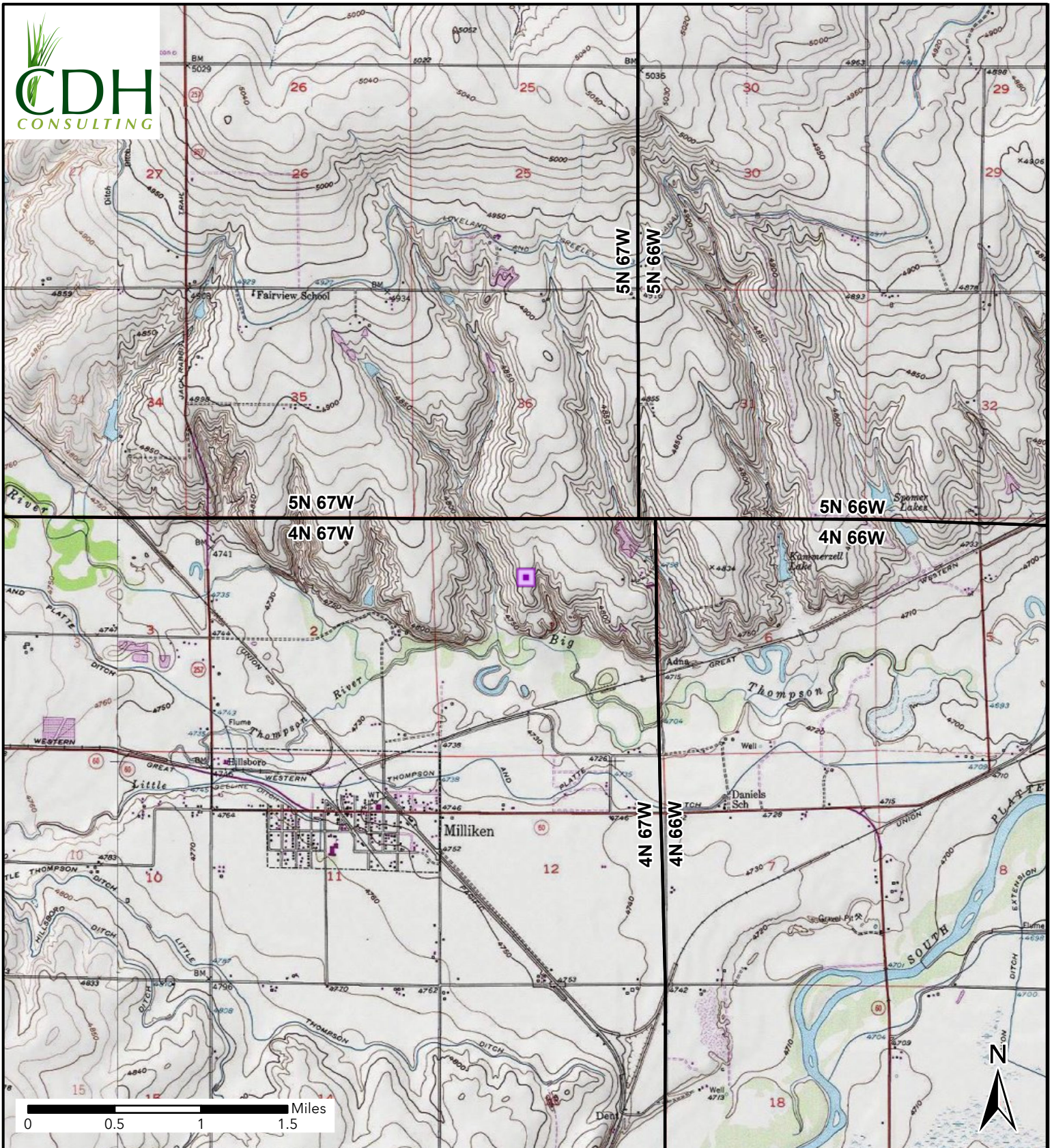
**PDC ENERGY**

1099 18th Street  
Suite 1500  
Denver, CO 80202

Prepared by:



4725 Independence Street  
Wheat Ridge, CO 80033

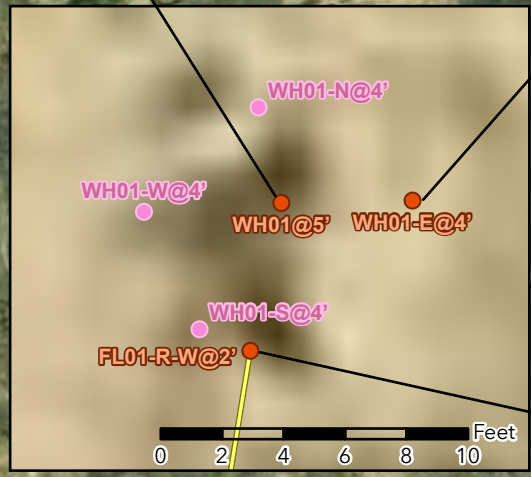


**Figure 1**  
**Site Location**  
**BERNHARDT 21-1**  
L2-SEC 1-T4N-R67W  
Weld County, Colorado  
PDC Energy Inc.

 Site Location

**WH01-E@4'**  
 Date: 8/28/2025  
 1-Methyl - Naphthalene: **0.0119** mg/kg

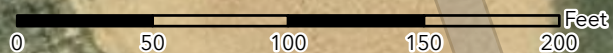
**WH01@5'**  
 Date: 8/28/2025  
 1-Methyl - Naphthalene: **0.0137** mg/kg



**FL01-R-W@2'**  
 Date: 8/28/2025  
 Cadmium: **0.78** mg/kg

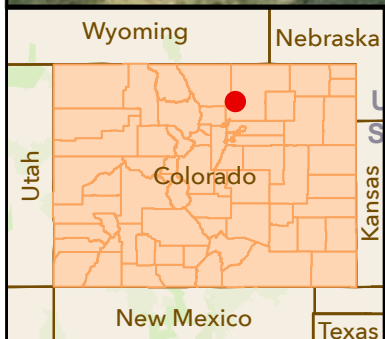
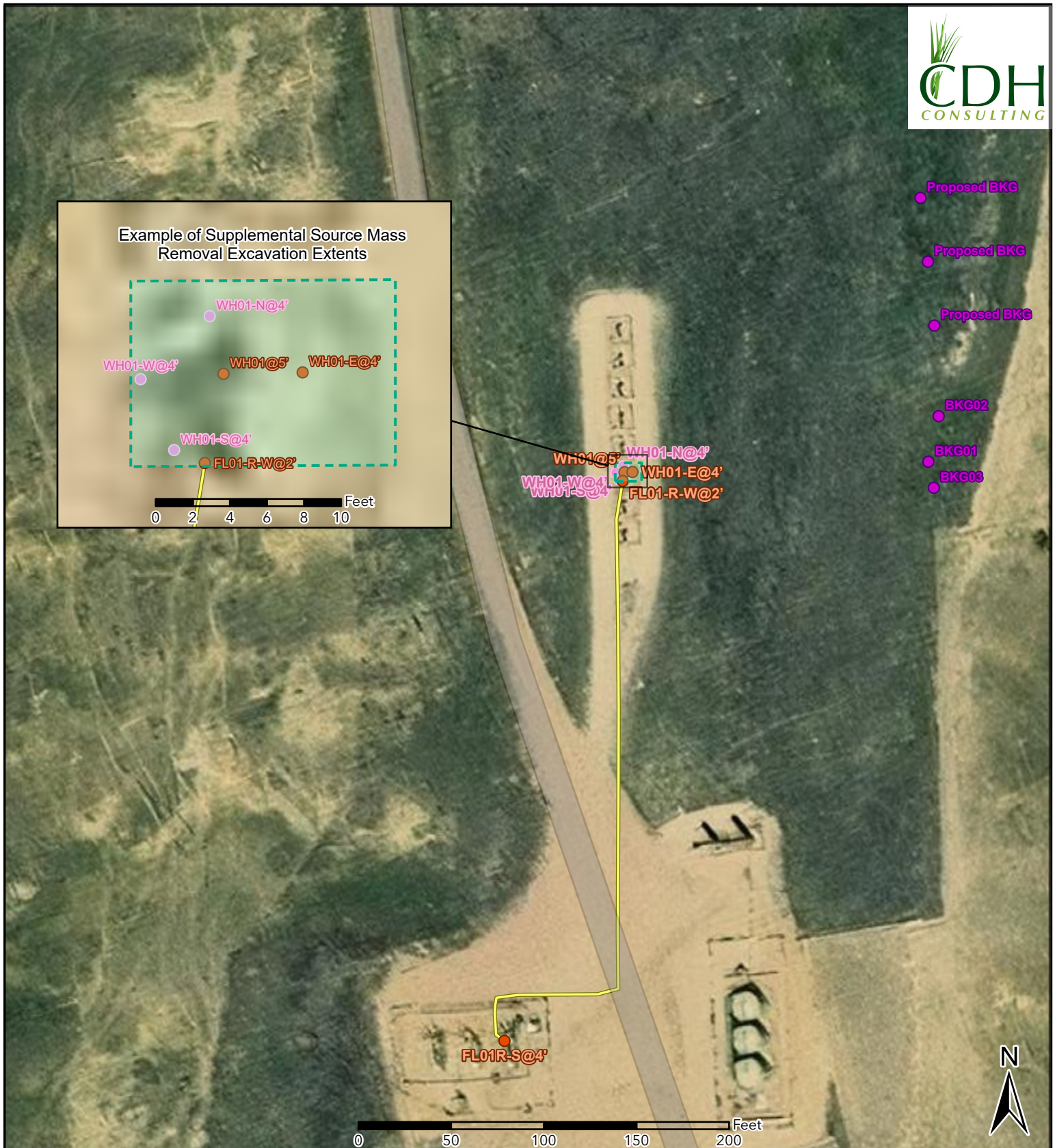
BKG02  
 BKG01  
 BKG03

NOTE:  
 XXXX@X = Sample Name @ Depth in Feet  
**BOLD** - Above ECMC Table 915-1 Standards  
 "mg/kg" = milligrams per kilogram



**Figure 2**  
**Soil Sample and Field**  
**Screening Locations Map**  
 BERNHARDT 21-1  
 L2-SEC 1-T4N-R67W  
 Weld County, Colorado  
 PDC Energy Inc.

- Soil Sample
- Screening Point
- Background Sample
- Flowline Abandoned In Place



**Figure 3**  
**Supplemental Source Mass Removal Map**  
 BERNHARDT 21-1  
 L2-SEC 1-T4N-R67W  
 Weld County, Colorado  
 PDC Energy Inc.

- Soil Sample
- Background Sample
- Screening Point
- Flowline Abandoned In Place
- Proposed Excavation

**TABLE 1**  
**FIELD DATA SUMMARY TABLE**  
**PDC 69175**  
**BERNHARDT 21-1, WELD COUNTY, COLORADO**  
**REM # 41881**

Sample ID	Sample Date	Depth (ft)	GPS Data		PDOP Value	VOC Concentration (ppm)
			Latitude	Longitude		
WH01@5'	8/28/2025	5	40.345070	-104.841327	1.200000	17.8
WH01-N@4'	8/28/2025	4	40.345079	-104.841329	1.900000	3.2
WH01-E@4'	8/28/2025	4	40.345071	-104.841311	1.200000	28.4
WH01-S@4'	8/28/2025	4	40.345059	-104.841336	1.400000	3.2
WH01-W@4'	8/28/2025	4	40.345070	-104.841343	1.200000	4.0
FL01-R-W@2'	8/28/2025	2	40.345057	-104.841330	1.100000	1.7
BKG01@2'	8/28/2025	2	40.345085	-104.84074	1.171834	0.7
BKG01@4.5'	8/28/2025	4.5	40.345085	-104.84074	1.171834	0.5
BKG02@2'	8/28/2025	2	40.345153	-104.840718	1.069936	0.2
BKG02@4.5'	8/28/2025	4.5	40.345153	-104.840718	1.069936	0.0
BKG03@2'	8/28/2025	2	40.345046	-104.840728	1.037355	0.3
BKG03@4.5'	8/28/2025	4.5	40.345046	-104.840728	1.037355	0.1
FL01R-S@4'	10/6/2025	4	40.344235	-104.841571	0.800000	2.2

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

TABLE 2  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
PDC 69175  
BERNHARDT 21-1, WELD COUNTY, COLORADO  
REM # 41881

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@5'	8/28/2025	5	<0.0012	<0.0024	<0.0024	<0.0024	0.0027	0.0052	<0.0023	29.2	<0.24	29.2	<7.5
WH01-E@4'	8/28/2025	4	<0.0011	<0.0023	<0.0023	<0.0023	<0.0023	0.0061	<0.0023	66.9	<0.23	37.8	29.1
FL01-R-W@2'	8/28/2025	2	<0.0011	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	16.18	<0.22	5.58	10.6
FL01R-S@4'	10/6/2025	4	<0.0011	0.005	<0.0023	0.0048	<0.0023	<0.0023	<0.0022	<6.4	<0.23	<4.2	<6.4

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
  5. Samples are reported as dry weight unless otherwise indicated in the laboratory PDF report(s)
- (<) = 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

TABLE 3  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
PDC 69175  
BERNHARDT 21-1, WELD COUNTY, COLORADO  
REM # 41881

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@5'	8/28/2025	5	<0.0046	<0.0046	<0.0058	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	0.0058	<b>0.0137</b>	0.0051
WH01-E@4'	8/28/2025	4	<0.0046	<0.0046	<0.0057	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<b>0.0119</b>	0.0055
FL01-R-W@2'	8/28/2025	2	<0.0045	<0.0045	<0.0056	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045
FL01R-S@4'	10/06/2025	4	<0.0043	<0.0043	<0.0054	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043	<0.0043

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. Samples are reported as dry weight unless otherwise indicated in the laboratory PDF report(s)
- (<) = Analytical result is less than the indicated laboratory reporting limit  
mg/kg = Milligrams per kilogram  
ft = Feet

TABLE 4  
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION  
PDC 69175  
BERNHARDT 21-1, WELD COUNTY, COLORADO  
REM # 41881

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@5'	8/28/2025	5	8.29	0.65	0.899	<0.50
WH01-E@4'	8/28/2025	4	7.56	0.47	0.548	<0.50
FL01-R-W@2'	8/28/2025	2	7.88	0.25	0.0418	<0.50
FL01R-S@4'	10/06/2025	4	8.19	0.21	0.110	<0.50
BKG01@2'	8/28/2025	2	7.04	0.53	0.758	<0.50
BKG01@4.5'	8/28/2025	4.5	7.58	0.43	1.12	<0.50
BKG02@2'	8/28/2025	2	7.51	0.37	0.159	<0.50
BKG02@4.5'	8/28/2025	4.5	7.65	0.37	0.518	<0.50
BKG03@2'	8/28/2025	2	7.76	0.28	0.360	<0.50
BKG03@4.5'	8/28/2025	4.5	7.74	0.31	0.838	<0.50
Maximum Background Concentration			7.76	0.53	1.12	NA

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.

4. Samples are reported as dry weight unless otherwise indicated in the laboratory PDF report(s)

ft = Feet

EC = Electrical Conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligrams per liter

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

NA = Not analyzed

TABLE 5  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
PDC 69175  
BERNHARDT 21-1, WELD COUNTY, COLORADO  
REM # 41881

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@5'	8/28/2025	5	<b>4.7</b>	80.5	0.13	<0.48*	8.8	8.4	8.4	<0.24	<0.060	48.1
WH01-E@4'	8/28/2025	4	<b>4.9</b>	74.7	0.13	<0.46*	8.8	7.8	8.5	0.22	<0.053	41.7
FL01-R-W@2'	8/28/2025	2	<b>4.7</b>	<b>108</b>	<b>0.78</b>	<0.47*	12.4	9.2	8.1	<0.23	0.076	35.1
FL01R-S@4'	10/06/2025	4	<b>3.9</b>	<b>118</b>	0.24	<0.46	8.8	8.2	9.6	<0.14	<0.072	33.1
BKG01@2'	8/28/2025	2	<b>4.6</b>	<b>169</b>	0.31	<0.45 *	14.5	10.4	12.1	<b>0.32</b>	<0.058	55.3
BKG01@4.5'	8/28/2025	4.5	<b>4.0</b>	<b>87.2</b>	0.12	<0.42 *	5.9	6.8	7.1	0.21	<0.050	32.9
BKG02@2'	8/28/2025	2	<b>4.4</b>	<b>160</b>	0.26	<0.42 *	12.4	10.3	11.6	<b>0.31</b>	<0.058	59.9
BKG02@4.5'	8/28/2025	4.5	<b>4.9</b>	<b>136</b>	0.21	<0.42 *	10.5	8.9	10.3	0.25	<0.057	46.4
BKG03@2'	8/28/2025	2	<b>5.4</b>	<b>90.5</b>	0.16	<0.41 *	7.4	8.2	8.8	<0.21	<0.051	31.3
BKG03@4.5'	8/28/2025	4.5	<b>4.8</b>	74.5	0.12	<0.41 *	6.3	7.2	7.6	<0.20	<0.051	28.4
1.25x Maximum Background Concentration			6.8	211.3	0.39	NA	18.1	13.0	15.1	0.40	NA	74.9

- 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.
  - Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL).
  - Non-detect background results accounted for in the highest background concentration by using the reporting limit.
  - Samples are reported as dry weight unless otherwise indicated in the laboratory PDF report(s)
- (<) = Analytical result is less than the indicated laboratory reporting limit  
mg/kg = Milligrams per kilogram  
ft = Feet  
\* Indicates laboratory minimum detection limit in excess of SSL



<b>CLIENT:</b> PDC Energy, Inc. or PDC Permian							<b>SITE NAME:</b> Bernhardt 21-1		<b>DATE:</b> 10/6/2025	<b>REM. PROJECT #:</b> 41881	<b>WEATHER:</b> 50s, cloudy
<b>SITE DIRECTIONS:</b> HW257/CR52, E.6 mile, S 1.2 mile, E into							<b>JOB#:</b> 10802				
<b>LEGALS AND LAT/LONG:</b> 40.3468084, -104.84232240							<b>TASMAN PERSONNEL:</b> EG				
<b>SOIL TYPES:</b> Well Graded Sand - SW							<b>SURFACE GRADIENT:</b> Southwest				
<b>SOIL SAMPLING</b>							<b>FACILITY INFRASTRUCTURE</b>				
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo?	Grab or Lab Sample?	EQUIPMENT		Quantity		
							Above Ground Storage Tank (AST)				
10-06-2025 12:00	FL01R-S@4'	2.2	No Staining	No Odor	Yes	Lab	Buried or Partially Buried Vessel				
							Separator				
							Emission Control Device (ECD)				
							Dump Line				
							Wellhead				
							Flowline		1		
							Other:				
							<b>Soil Loads Removed</b>				
							<b>IMPACTED SOIL IDENTIFIED?</b> No				
							<b>ESTIMATED VOLUME OF IMPACTS:</b>				
							Date	Number	CY		
							<b>Total Removed</b>		0      0		
							<b>Disposal Facility:</b>				
							<b>Groundwater Recovery</b>				
							<b>DATE GW ENCOUNTERED:</b>			<b>DEPTH:</b>	
							<b>GROUNDWATER IN CONTACT WITH IMPACTED SOIL?</b>				
							<b>LNAPL OR SHEEN OBSERVED ON GW?</b>				
<b>GROUNDWATER SAMPLING</b>							Date		BBLs		
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?					
							<b>Total Removed</b>		0		
							<b>Disposal Facility:</b>				

# 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? No
2. Does the soil sample from the stained area have a petroleum odor? No
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: Bernhardt 21-1

Please Circle Facility Type: Flowline





# Photographic Log



<b>Equipment ID:</b> FL01R-S@4'		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Water in the hole is from Hydrovac, groundwater not encountered			

<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Plate identifying Bernhardt 21-1 separator			