

FORM  
2

Rev  
05/22

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403217090

(SUBMITTED)

Date Received:

11/03/2022

APPLICATION FOR PERMIT TO

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

Amend ☐

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: \_\_\_\_\_

Refill ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☒

Well Name: Bernhardt

Well Number: 06N

Name of Operator: PDC ENERGY INC

COGCC Operator Number: 69175

Address: 1775 SHERMAN STREET - STE 3000

City: DENVER

State: CO

Zip: 80203

Contact Name: Venessa Chase

Phone: (303)318-6102

Fax: ( )

Email: venessa.chase@pdce.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance

☒ The Operator has provided or will provide Financial Assurance to the COGCC for this Well.

Surety ID Number (if applicable): 20160047

Federal Financial Assurance

☐ In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ \_\_\_\_\_

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NWNW Sec: 18 Twp: 4N Rng: 66W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 618 Feet FNL 356 Feet FWL

Latitude: 40.317516

Longitude: -104.828422

GPS Data:

GPS Quality Value: 1.8

Type of GPS Quality Value: PDOP

Date of Measurement: 09/02/2022

Ground Elevation: 4736

Field Name: WATTENBERG

Field Number: 90750

Well Plan: is ☐ Directional ☒ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 13 Twp: 4N Rng: 67W

Footage at TPZ: 1329 FNL 150 FEL

Measured Depth of TPZ: 9421

True Vertical Depth of TPZ: 7128

FNL/FSL

FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 14 Twp: 4N Rng: 67WFootage at BPZ: 1344 FNL 460 FWLMeasured Depth of BPZ: 17593True Vertical Depth of BPZ: 7005 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 14 Twp: 4N Rng: 67WFootage at BHL: 1344 FNL 460 FWL

FNL/FSL

FEL/FWL

**LOCAL GOVERNMENT PERMITTING INFORMATION**County: WELDMunicipality: Milliken

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of §

24-65.1-108 C.R.S.? No

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I) (A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☒ Yes ☐ No☒ If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.The disposition of the application filed with the Relevant Local Government is: Approved Date of Final Disposition: 02/16/2022Comments: **SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION**Surface Owner of the land at this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ IndianMineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Surface Owner Protection Bond (if applicable):

Surety ID Number (if applicable):

**MINERALS DEVELOPED BY WELL**

The ownership of all the minerals that will be developed by this Well is (check all that apply):

☒ Fee☐ State☐ Federal☐ Indian☐ N/A**LEASE INFORMATION**

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

\* If this Well is within a unit, describe a lease that will be developed by the Well.

\* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

T4N-R66W Section 18: W2NW, among other landsTotal Acres in Described Lease: 811 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ IndianFederal or State Lease #

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 568 Feet  
Building Unit: 1123 Feet  
Public Road: 341 Feet  
Above Ground Utility: 319 Feet  
Railroad: 473 Feet  
Property Line: 356 Feet

### INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit – as defined in 100 Series Rules.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR	GWA	720	T4N-R66W Section 18: W2NW; T4N-R67W Section 13: N2; Section 14: N2

Federal or State Unit Name (if appl):

Unit Number:

## SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? No

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: 0 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: 73 Feet

## Exception Location

☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers.

## SPACING & FORMATIONS COMMENTS

**DRILLING PROGRAM**Proposed Total Measured Depth: 17593 FeetTVD at Proposed Total Measured Depth 7005 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: 72 Feet ☐ No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater thanor equal to 100 ppm? No If yes, attach an H<sub>2</sub>S Drilling Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? NoWill salt sections be encountered during drilling? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? YesBOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ NoneBeneficial reuse or land application plan submitted? No

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

**CASING PROGRAM**

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	13+1/2	9+5/8	J-55	36	0	1680	759	1680	0
1ST	8+1/2	5+1/2	P-110	20	0	17593	2035	17593	2000

☒ Conductor Casing is NOT planned**POTENTIAL FLOW AND CONFINING FORMATIONS**

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	Fox Hills	0	0	667	667	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	667	667	788	788			
Groundwater	UPIR/Pawnee Aquifer	788	788	1295	1295	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	1295	1295	3760	3687			
Hydrocarbon	Parkman	3760	3687	4060	3982			
Confining Layer	Pierre Shale	4060	3982	4225	4147			
Hydrocarbon	Sussex	4225	4147	4487	4409			
Confining Layer	Pierre Shale	4487	4409	4790	4790			
Hydrocarbon	Shannon	4790	4790	4844	4766			
Confining Layer	Pierre Shale	4844	4766	7022	6892			
Subsurface Hazard	Sharon Springs Shale	7022	6892	7070	6927			Lease Competent Shales
Hydrocarbon	Niobrara/Codell	7070	6927	17589	7005			Niobrara C

**OPERATOR COMMENTS AND SUBMITTAL**

Comments

This APD is being submitted for an unplanned sidetrack:

Well Name and API: Bernhardt 06N API: 05-123-51134

- Explanation of situation and why you need to sidetrack: While drilling the lateral we had a differential pressure spike and an immediate loss on 700 psi standpipe pressure. After tripping out of the hole it was determined that we had lost the bit. Fishing attempts are very low success, so the decision was made to open hole sidetrack and go around the fish.
- Casing sizes set and measured depth: 9-5/8" Casing set at 1,680' MD
- Description of fish-including top and bottom: Top of Fish 13,836' MD / 7,030' TVD Bottom of Fish: 13,837' MD / 7,030' TVD. Fish is a 1' long drill bit.
- Type of Cement you will be using including weight, yield, and sacks: No cement, open hole sidetrack.
- Measured depth and TVD of sidetrack point: 7,500' MD/ 7,120' TVD
- Proposed target formation of sidetrack hole if different than permitted: Same as permit
- BHL of sidetrack hole: Same as permit
- Wellbore Diagram: Attached

This application is in a Comprehensive Area Plan \_\_\_\_\_

CAP #: \_\_\_\_\_

Oil and Gas Development Plan Name \_\_\_\_\_

OGDP ID#: \_\_\_\_\_

Location ID: 466367

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_

Print Name: Venessa Chase

Title: Regulatory Manager

Date: 11/3/2022

Email: venessa.chase@pdce.com

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: \_\_\_\_\_

Director of COGCC

Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

API NUMBER

05 123 51134 01

### Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

COA Type

Description

0 COA



## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
2	Drilling/Completion Operations	ALTERNATIVE PROGRAM: One of the first wells drilled on the pad will be logged with open-hole resistivity log and gamma-ray log from the kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify the type of log and the well (by API #) in which open-hole logs were run.

Total: 2 comment(s)

### Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403217263	WELLBORE DIAGRAM
403218297	CORRESPONDENCE

Total Attach: 2 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

## Public Comments

No public comments were received on this application during the comment period.

