

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:

403069106

(SUBMITTED)

Date Received:

07/21/2022

APPLICATION FOR PERMIT TO

Drill Deepen Re-enter Recomplete and Operate

Amend

TYPE OF WELL OIL GAS COALBED OTHER: _____

Refile

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Sidetrack

Well Name: Drake Well Number: 05N
 Name of Operator: PDC ENERGY INC COGCC Operator Number: 69175
 Address: 1775 SHERMAN STREET - STE 3000
 City: DENVER State: CO Zip: 80203
 Contact Name: Ally Ota Phone: (303)860-5800 Fax: ()
 Email: alexandria.ota@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: SWNW Sec: 17 Twp: 4N Rng: 64W Meridian: 6

Footage at Surface: 2116 Feet FNL 1016 Feet FWL

Latitude: 40.313830 Longitude: -104.580230

GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 02/06/2021

Ground Elevation: 4737

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: 18 Twp: 4N Rng: 64W Footage at TPZ: 996 FNL 450 FEL
Measured Depth of TPZ: 7568 True Vertical Depth of TPZ: 6771 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)
 Sec: 16 Twp: 4N Rng: 64W Footage at BPZ: 995 FNL 200 FEL
 Measured Depth of BPZ: 18362 True Vertical Depth of BPZ: 6725 FNL/FSL FEL/FWL
 Bottom Hole Location (BHL)
 Sec: 16 Twp: 4N Rng: 64W Footage at BHL: 995 FNL 200 FEL
 FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: N/A
 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.? Yes
 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: 03/17/2022
 Comments: 1041WOGLA21-0007 CDP is approved

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 Indian
 Mineral 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-R64W Section 17: NW/4, S/2, among other lands
 Total Acres in Described Lease: 5660 Described Mineral Lease is: Fee State Federal Indian
 Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 991 Feet
 Building Unit: 1226 Feet
 Public Road: 977 Feet
 Above Ground Utility: 544 Feet
 Railroad: 5280 Feet
 Property Line: 502 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	407-3328	3770	S.4: S2S2S2, S.5: S2S2SE, S.7: SESESE, S.8: E2, S2S2SW, S.9: All, S.16: All, S.17: All, S.18: E2E2E2, S.20: All, S.21: All

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? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 200 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: 175 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: _____ 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: _____ 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 PROGRAMProposed Total Measured Depth: 18362 FeetTVD at Proposed Total Measured Depth 6725 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: 11 Feet No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H₂S 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

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
SURF	13+1/2	9+5/8	J-55	36	0	1600	920	1600	0
1ST	8+1/2	5+1/2	P-110	20	0	18362	2035	18362	2000

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

<u>Zone Type</u>	<u>Formation /Hazard</u>	<u>Top M.D.</u>	<u>Top T.V.D.</u>	<u>Bottom M.D.</u>	<u>Bottom T.V.D.</u>	<u>TDS (mg/L)</u>	<u>Data Source</u>	<u>Comment</u>
Groundwater	Fox Hills Sandstone	495	495	880	880	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	925	925	975	975			
Groundwater	UPIR/Pawnee Aquifer	975	975	1493	1493	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	1493	1493	3655	3655			
Hydrocarbon	Parkman	3655	3655	3955	3955			
Confining Layer	Pierre Shale	3955	3955	4047	4047			
Hydrocarbon	Sussex	4047	4047	4430	4430			
Confining Layer	Pierre Shale	4430	4430	4897	4897			
Hydrocarbon	Shannon	4897	4897	4967	4967			
Confining Layer	Pierre Shale	4967	4967	7347	6681			
Subsurface Hazard	Sharon Springs Shale	7347	6681	7442	6727			
Hydrocarbon	Niobrara	7442	6727	18362	6725			

OPERATOR COMMENTS AND SUBMITTAL

Comments

The distance to the completed portion of the nearest well on the "Spacing and Formations" tab was measured to the Drake 04NA (Doc #403069098). The distance to the nearest wellbore belonging to another operator on the "Drilling Plan" tab was measured to the Frick C 17-79HN (05-123-3329). Both distances were measured via the anti-collision report attached in the deviated drilling plan.

The subject well will have a treated interval less than 175' from the treated interval of the below listed wells owned by Noble. Stimulation Setback Consent is attached for those closer than 150'. All distances were measured using the attached anti-collision report.

State 16-2i4 (05-123-17790), 108', P&A
Mark Alter C16-79HN (05-123-33386), 25', PR
State 16-4i4 (05-123-18402), 120', SI
Frick C 17-79HN (05-123-33279), 11', TA

This application is in a Comprehensive Area Plan No CAP #: _____
Oil and Gas Development Plan Name Kenosha OGDP ID#: 481580
Location ID: 482390

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

Signed: _____ Print Name: Ally Ota

Title: Regulatory Analyst Date: 7/21/2022 Email: alexandria.ota@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

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

RETURNED TO DRAFT: This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is returning this form to DRAFT for the applicant to resolve the issues. In compliance with § 24-65.1-108(1), C.R.S., the COGCC is returning this application to the applicant to remedy the deficiencies. The applicant may resubmit this application for COGCC review; upon resubmittal of any application, the COGCC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review.

In addition to all standard required information and attachments, the COGCC hereby confirms the following information is necessary for review:

1. Missing Deviated Drilling Plan as required by:
Rule 308.b.(5) .
Rule 410.a.(1)

Best Management Practices

No	BMP/COA Type	Description
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	OPEN HOLE LOGGING EXCEPTION: One of the first wells drilled on the pad will be logged with cased-hole neutron log with 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 in that well and have those logs attached. The Form 5 for each well shall state "Open Hole Logging Exception - 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

Att Doc Num	Name
403071229	OffsetWellEvaluations Data
403071551	OPEN HOLE LOGGING EXCEPTION
403071552	STIMULATION SETBACK CONSENT
403071553	WELL LOCATION PLAT
403071554	DEVIATED DRILLING PLAN
403071555	DIRECTIONAL DATA

Total Attach: 6 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)

Public Comments

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

