

FORM

2

Rev
05/22

State of Colorado

Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203

Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

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Date Received:

01/22/2024

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: BYPASS STATEWell Number: 02NName of Operator: PDC ENERGY INCCOGCC Operator Number: 69175Address: 1099 18TH STREET SUITE 1500City: DENVERState: COZip: 80202Contact Name: Doug DennisonPhone: (303)228-4000Fax: ()Email: denverregulatory@chevron.onmicrosoft.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: 18 Twp: 5N Rng: 66W Meridian: 6
 Footage at Surface: 1869 Feet FNL 943 Feet FWL
Latitude: 40.401708Longitude: -104.828887

GPS Data:

GPS Quality Value: 1.4Type of GPS Quality Value: PDOPDate of Measurement: 05/03/2023Ground Elevation: 4891Field Name: WATTENBERGField Number: 90750Well 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: 5N Rng: 67WFootage at TPZ: 798 FNL 150 FELMeasured Depth of TPZ: 7818True Vertical Depth of TPZ: 7269 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 14 Twp: 5N Rng: 67W Footage at BPZ: 786 FNL 200 FWL
Measured Depth of BPZ: 17900 True Vertical Depth of BPZ: 7009 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 14 Twp: 5N Rng: 67W Footage at BHL: 787 FNL 150 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: Greeley

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: 11/30/2022

Comments: USR2022-0006 Approved on 11/30/2022

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.)

5N 66W Sec. 18: W2NW4

Total Acres in Described Lease: 80 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1692 Feet
Building Unit: 1692 Feet
Public Road: 941 Feet
Above Ground Utility: 711 Feet
Railroad: 5280 Feet
Property Line: 382 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	407-3504	3211	5N 66W Sec 16, 17, 18: ALL, 5N 67W Sec. 13, 14: 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: 150 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: 300 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 PROGRAM

Proposed Total Measured Depth: 17980 Feet

TVD at Proposed Total Measured Depth 7009 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: 42 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is 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? No

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

Beneficial 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
CONDUCTOR	26	16	A-52A	36.94	0	80	175	80	0
SURF	13+1/2	9+5/8	J-55	36	0	1650	750	1650	0
1ST	8+1/2	5+1/2	P-110	17	0	17980	2100	17980	

☐ 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
Confining Layer	Pierre Shale	845	845	940	940			
Groundwater	UPIR/Pawnee Aquifer	940	940	1415	1415	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	1415	1415	3747	3747			
Hydrocarbon	Parkman	3747	3747	4090	4090			
Confining Layer	Pierre Shale	4090	4090	4255	4255			
Hydrocarbon	Sussex	4255	4255	4552	4552			
Confining Layer	Pierre Shale	4552	4552	4860	4860			
Hydrocarbon	Shannon	4860	4860	4915	4915			
Confining Layer	Pierre Shale	4915	4915	7199	7032			
Subsurface Hazard	Sharon Springs Shale	7199	7032	7234	7057			least competent shales
Hydrocarbon	Niobrara	7234	7057	17980	7009			NIO C TARGET

OPERATOR COMMENTS AND SUBMITTAL

Comments

PDC Energy Inc shall isolate both the Fox Hills and UPIR/Pawnee Aquifers with surface casing from hydrocarbon bearing zones and exposure to oil-based drilling fluid. Noble Energy also agrees to not expose the UPIR/Pawnee Aquifers to oil-based mud.

The nearest well in the same formation is located on the same pad, the BYPASS STATE 08N operated by PDC Energy Inc. Measured in 2D.

The distance to another wellbore belonging to an outside operator is the SHANNON 14-1 (API: 05-123-12951) Operated by Highpoint Operating Corp, status PA. The distance was calculated using the anti-collision summary.

Wells within 150':

RAGAN N 14-02, 05-123-18812 (PA) 97' operated by Noble Energy INC no 408.u is required.

SHANNON 14-3, 05-123-13213 PA) 117' operated by Noble Energy INC no 408.u is required.

SHANNON 14-4, 05-123-13236 (PA) 109' operated by Noble Energy INC no 408.u is required.

Laramie/ Fox Hills is not present in this area, this was verified through the DWR Aquifer tool.

PDC Energy is the surface owner, SUA and bond are not required.

This application is in a Comprehensive Area Plan Yes CAP #: 210200012

Oil and Gas Development Plan Name Cameron 1 OGDP ID#: 484647

Location ID: 485097

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

Signed: _____ Print Name: Kim Bauer

Title: Regulatory Analyst II Date: 1/22/2024 Email: kimberlybauer@chevron.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: 3/14/2024

Expiration Date: 12/08/2032

API NUMBER

05 123 52487 00

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.

<u>COA Type</u>	<u>Description</u>
Planning	Pursuant to Rule 702.b.(2), the approval of this Application for Permit to Drill constitutes a "change in circumstance" to the approved Financial Assurance Plan. The Operator must file a revised Form 3, Financial Assurance Plan, within 10 days of this approval.
Drilling/Completion Operations	Per ECMC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval prior to stimulation. 2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
Drilling/Completion Operations	1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with a cement bond log. 3) Oil based drilling fluid can only be used after all groundwater has been isolated.
Drilling/Completion Operations	Operator will log one (1) additional well during the first rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the two stratigraphically deepest wells on each side/direction of the pad for a total of two wells logged.
4 COAs	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Operator will perform anti-collision evaluation of all active (producing, shut-in, or temporarily abandoned) offset wellbores that have the potential of being within 150' of the proposed well prior to drilling operations.`
2	Drilling/Completion Operations	During and Post stimulation: PDC Energy Inc will comply with the CECMC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated 5/29/12.`
3	Drilling/Completion Operations	If a skid is performed for the subject well, then the only required BOPE tests are for the BOPE connection bonnet seal breaks, as long as a full BOPE test was performed at the beginning of the pad, and as long as all necessary BOPE tests are completed at least every 30 days during the pad operations.`
4	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad during the first rig occupation will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for one of the stratigraphically deepest wells on the pad. 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 will state "Alternative Logging Program - No open-hole logs were run" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run.`

Total: 4 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403650121	FORM 2 SUBMITTED
403650851	OffsetWellEvaluations Data
403650861	DEVIATED DRILLING PLAN
403650864	WELL LOCATION PLAT
403650869	DIRECTIONAL DATA
403720026	OFFSET WELL EVALUATION

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	03/04/2024
Permit	Close: SLB has no concerns with this application. Permitting review complete.	02/26/2024
Permit	Updated Operator BMP/COA comment to reflect name change from COGCC to ECMC Open: Emailed the SLB to notify them of this pending application.	02/22/2024
OGLA	The Commission approved OGDG #484647 on August 30, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	01/23/2024

Total: 4 comment(s)