

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



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403769355  
Date Received:  
07/18/2024

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: WINDOM    Well Number: 12N  
Name of Operator: PDC ENERGY INC    ECMC Operator Number: 69175  
Address: 1099 18TH STREET SUITE 1500  
City: DENVER    State: CO    Zip: 80202  
Contact Name: Patricia Minerich    Phone: (303)228-4000    Fax: ( )  
Email: RBUDevPermitting@chevron.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

**ECMC Financial Assurance**  
 The Operator has provided or will provide Financial Assurance to the ECMC for this Well.  
Surety ID Number (if applicable): 20230093

**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: NWSE    Sec: 24    Twp: 5N    Rng: 67W    Meridian: 6  
Footage at Surface: 1712 Feet    1712 Feet    1712 Feet    1712 Feet  
Latitude: 40.382520    Longitude: -104.840420  
GPS Data:    GPS Quality Value: 1.5    Type of GPS Quality Value: PDOP    Date of Measurement: 11/05/2021  
Ground Elevation: 5004  
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: 24    Twp: 5N    Rng: 67W    Footage at TPZ: 235    2477    2477  
Measured Depth of TPZ: 7948    True Vertical Depth of TPZ: 7398    7398    7398

Base of Productive Zone (BPZ)

Sec: 23 Twp: 5N Rng: 67W Footage at BPZ: 235 FSL 150 FWL

Measured Depth of BPZ: 15536 True Vertical Depth of BPZ: 7128 FNL/FSL  FEL/FWL

Bottom Hole Location (BHL)

Sec: 23 Twp: 5N Rng: 67W Footage at BHL: 235 FSL 100 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: 08/17/2023

Comments: 1041WOGLA23-0037 was approved on 8/17/2023

**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.)

Township 5 North - Range 67 West Section 24: SE4

Total Acres in Described Lease: 160 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2115 Feet  
Building Unit: 2249 Feet  
Public Road: 1698 Feet  
Above Ground Utility: 1956 Feet  
Railroad: 5280 Feet  
Property Line: 311 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	407-3556	2230	Township 5 North, Range 66 West Section 19: All Section 20: W2 Township 5 North, Range 67 West Section 23: All Section 24: 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: 302 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: 15586 Feet TVD at Proposed Total Measured Depth 7126 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: 132 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 than or 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**

<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>
CONDUCTOR	26	16	A-52A	36.94	0	80	175	80	0
SURF	13+1/2	9+5/8	J-55	36	0	1850	633	1850	0
1ST	8+1/2	5+1/2	P-110	17	0	15586	1834	15586	

 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>
Confining Layer	Pierre Shale	0	0	552	552			
Groundwater	UPIR/Pawnee Aquifer	552	552	1531	1516	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	1531	1516	3954	3880			
Hydrocarbon	Parkman	3954	3880	4347	4263			
Confining Layer	Pierre Shale	4347	4263	4579	4489			
Hydrocarbon	Sussex	4579	4489	4835	4738			
Confining Layer	Pierre Shale	4835	4738	5087	4984			
Hydrocarbon	Shannon	5087	4984	5288	5180			
Confining Layer	Pierre Shale	5288	5180	7363	7172			
Subsurface Hazard	Sharon Springs Shale	7363	7172	7412	7208			least competent shales
Hydrocarbon	Niobrara	7412	7208	15586	7126			Nio Target

**OPERATOR COMMENTS AND SUBMITTAL**

Comments

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

Fox Hills is not anticipated to be encountered.

The nearest well in the same formation is located on the same pad, the WINDOM 24N operated by PDC Energy Inc. Measured in 2D.

The distance to another wellbore belonging to an outside operator is the BLEHM #7 (05-123-11217) 132' operated by NOBLE ENERGY INC ,status PA. The distance was calculated using the anti-collision summary. No408.u is required, well has been plugged and abandoned.

This well has a bottom-hole location beyond the unit boundary setback. The bottom of the completed interval will be within the unit boundary setback at 235' FSL and 150' FWL of Section 23. The wellbore beyond the unit boundary setback will be physically isolated and will not be completed.

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

Oil and Gas Development Plan Name Cameron 2 OGDP ID#: 485239

Location ID: 485814

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: 7/18/2024 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 ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved:  Director of ECMC Date: 9/17/2024

Expiration Date: 12/08/2032

**API NUMBER**  
05 123 52722 00

### **CONDITIONS OF APPROVAL, IF ANY LIST**

**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
Drilling/Completion Operations	The Operator will insure the wellbore beyond the unit boundary setback is physically isolated and is not completed. In the Operator Comments on the Form 5A the operator will (1) report the footages from the section lines of the bottom of the completed interval (2) describe how the wellbore beyond the unit boundary setback is physically isolated and (3) certify that none of the wellbore beyond the setback was completed.
Drilling/Completion Operations	Per 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 acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.  PDC ENERGY INC 123-11720 PHILLIPS * #1 NOBLE ENERGY INC 123-18368 D.L. PHILLIPS *24-21 NOBLE ENERGY INC 123-18369 D.L. PHILLIPS *24-22 NOBLE ENERGY INC 123-18983 GOLDBERG *N 24-2 NOBLE ENERGY INC 123-19438 BLEHM N *26-03  Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document (option 4). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation will be completed, during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. A Bradenhead test will be performed on the offset wells listed below within 30 days prior to the beginning of stimulation of this well. A Bradenhead test will be performed on the offset wells listed below within 30 days of the end of stimulation of this well. Surface and production casing pressures of this offset well list will be actively monitored during stimulation of this well. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and ECMC Engineering notified. Within 60 days after stimulation is complete, a Form 4 Sundry shall be submitted for each offset well on this list describing how Option 4 work was completed and include a summary of the monitoring details.  123-29345 PHILLIPS PC *N24-29D
Drilling/Completion Operations	Operator will log two (2) additional wells 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 three wells logged.
5 COAs	

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	During and Post stimulation: PDC Energy Inc will comply with the COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated 5/29/12.`
2	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.`
3	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.`
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>
403769355	FORM 2 SUBMITTED
403769398	WELL LOCATION PLAT
403789785	SURFACE AGRMT/SURETY
403794913	OffsetWellEvaluations Data
403816104	DEVIATED DRILLING PLAN
403922889	DIRECTIONAL DATA
403925191	OFFSET WELL EVALUATION

Total Attach: 7 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Operator provided new Directional Data sheet uploaded/applied. Incorrect Directional Data sheet deleted	09/16/2024
Permit	Final Review Completed.	08/06/2024
Permit	Permitting review complete	07/01/2024
OGLA	The Commission approved OGDG #485239 on December 20, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	06/13/2024

Total: 4 comment(s)