

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:

403397997

**(SUBMITTED)**

Date Received:

06/22/2023

### 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: Edmundson Well Number: 10N  
 Name of Operator: PDC ENERGY INC COGCC Operator Number: 69175  
 Address: 1099 18TH STREET SUITE 1500  
 City: DENVER State: CO Zip: 80202  
 Contact Name: Ally Ota Phone: (303)860-5800 Fax: ( )  
 Email: regulatory@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: SESE Sec: 30 Twp: 1S Rng: 66W Meridian: 6

Footage at Surface: 417 Feet FSL 405 Feet FEL

Latitude: 39.930015 Longitude: -104.810373

GPS Data: GPS Quality Value: 1.2 Type of GPS Quality Value: PDOP Date of Measurement: 03/13/2023

Ground Elevation: 5060

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: 32 Twp: 1S Rng: 66W Footage at TPZ: 2234 FNL 150 FWL  
Measured Depth of TPZ: 8607 True Vertical Depth of TPZ: 7675 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)  
 Sec: 33 Twp: 1S Rng: 66W Footage at BPZ: 2323 FNL 150 FEL  
 Measured Depth of BPZ: 18892 True Vertical Depth of BPZ: 7580 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)  
 Sec: 33 Twp: 1S Rng: 66W Footage at BHL: 2323 FNL 150 FEL  
 FNL/FSL FEL/FWL

**LOCAL GOVERNMENT PERMITTING INFORMATION**

County: ADAMS 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: 02/22/2018

Comments:

**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.)

Total Acres in Described Lease: 640 Described Mineral Lease is:  Fee  State  Federal  Indian

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

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1081 Feet  
Building Unit: 1668 Feet  
Public Road: 864 Feet  
Above Ground Utility: 2187 Feet  
Railroad: 2856 Feet  
Property Line: 405 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	407-3469	1280	T1S-R66W Section 32: All Section 33: 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: 218 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: 18892 Feet

TVD at Proposed Total Measured Depth 7580 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: 345 Feet  No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is 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? 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
SURF	13+1/2	9+5/8	J-55	36	0	2000	789	2000	0
1ST	8+1/2	5+1/2	P-110	20	0	18892	3002	18892	2400

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 Sandstone	1070	1070	1270	1270	1001-10000	DWR	COGCC UPWQ Study
Confining Layer	Pierre Shale	1270	1270	1672	1672			
Groundwater	UPIR/Pawnee Aquifer	1672	1672	1825	1825	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	1825	1825	4567	4567			
Hydrocarbon	Parkman	4567	4567	4752	4752			
Confining Layer	Pierre Shale	4752	4752	4925	4925			
Hydrocarbon	Sussex	4925	4925	5110	5110			
Confining Layer	Pierre Shale	5110	5110	6150	6150			
Hydrocarbon	Shannon	6150	6150	6250	6250			
Confining Layer	Pierre Shale	6250	6250	7890	7373			
Subsurface Hazard	Sharon Springs Shale	7890	7373	7969	7432			
Hydrocarbon	Niobrara	7969	7432	18892	7580			

## OPERATOR COMMENTS AND SUBMITTAL

Comments

This Form 2 is being refiled to update footages, spacing, and well name. This location has been built.

The distance to the completed portion of the nearest well on the "Spacing and Formations" tab was measured to the Edmundson 09N (05-001-10110). The distance to the nearest wellbore belonging to another operator on the "Drilling Plan" tab was measured to the plugged and abandoned Supers 1 (05-001-07002). Both distances were measured via the anti-collision report attached in the deviated drilling plan.



<b>Att Doc Num</b>	<b>Name</b>
403400781	OffsetWellEvaluations Data
403400786	WELL LOCATION PLAT
403400788	DEVIATED DRILLING PLAN
403400789	DIRECTIONAL DATA

Total Attach: 4 Files

**General Comments**

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

Total: 0 comment(s)

