

FORM
2

Rev
12/20

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:

402065356

Date Received:

10/29/2021

APPLICATION FOR PERMIT TO:

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

Amend ☐

Refill ☐

Sidetrack ☐

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Well Name: Spinney Well Number: 01N
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

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160047

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWSW Sec: 9 Twp: 3N Rng: 66W Meridian: 6

Footage at Surface: 993 Feet FSL 1296 Feet FWL

Latitude: 40.234820 Longitude: -104.787280

GPS Data: GPS Quality Value: 2.7 Type of GPS Quality Value: PDOP Date of Measurement: 01/04/2021

Ground Elevation: 4860

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: 9 Twp: 3N Rng: 66W Footage at TPZ: 2510 FSL 737 FWL
Measured Depth of TPZ: 7744 True Vertical Depth of TPZ: 7184 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 11 Twp: 3N Rng: 66W Footage at BPZ: 2510 FSL 150 FEL
Measured Depth of BPZ: 22806 True Vertical Depth of BPZ: 7173 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 11 Twp: 3N Rng: 66W Footage at BHL: 2510 FSL 150 FEL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELDMunicipality: 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: 08/09/2019

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 Financial Assurance (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.)

NW/4; S/2; of Sec. 9: T3N-R66W, among other lands

Total Acres in Described Lease: 5795 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1298 Feet
Building Unit: 1298 Feet
Public Road: 1273 Feet
Above Ground Utility: 1014 Feet
Railroad: 5280 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.

Property Line: 804 Feet

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	407-3242	480	T3N-R66W S.9: S2S2N2, N2N2S2, S.10: S2S2N2, N2N2S2, S.11: S2S2N2, N2N2S2

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: 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: 22806 Feet TVD at Proposed Total Measured Depth 7173 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: 31 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

<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	12+1/4	9+5/8	J-55	36	0	1600	920	1600	0
1ST	8+1/2	5+1/2	P-110	20	0	22806	3680	22806	

☒ 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	0	0	855	855	1001-10000	Other	COGCC UPWQ Study
Groundwater	UPIR/Pawnee Aquifer	1004	1004	1490	1490	1001-10000	Other	COGCC UPWQ Study
Confining Layer	Pierre Shale	1490	1490	3840	3839			
Hydrocarbon	Parkman	3840	3839	3955	3954			Non-productive horizon
Confining Layer	Pierre Shale	3955	3954	4265	4263			
Hydrocarbon	Sussex	4265	4263	4435	4433			Non-productive horizon
Confining Layer	Pierre Shale	4435	4433	4895	4892			
Hydrocarbon	Shannon	4895	4892	4955	4952			Non-productive horizon
Confining Layer	Pierre Shale	4955	4952	6988	6983			
Subsurface Hazard	Sharon Springs Shale	6988	6983	7010	7005			
Hydrocarbon	Niobrara	7932	7208	22781	7173			

OPERATOR COMMENTS AND SUBMITTAL

Comments The distance to the nearest wellbore belonging to another operator on the "Drilling Plan" tab was measured to the UPRC 9-12K (05-123-15151) 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 Kerr-McGee. Stimulation Setback Consent is attached for those closer than 150'. All distances were measured using the attached anti-collision report.

Birmingham L 09-20D (05-123-30357), 36', Shut In
 Birmingham L 09-21D (05-123-30520), 69' Shut In
 Graznak 32-11 (05-123-29592), 100', Producing
 Morning 25-10 (05-123-29805), 102' Plugged and Abandoned
 Mile High 24-11 (05-123-23223), 134', Shut In
 Morning 24-10 (05-123-29804), 163', Shut In

This application is in a Comprehensive Area Plan No CAP #: _____

OGDP ID#: 480337 OGDP Name: Spinney 3N66W9 1-8 Expiration Date: 10/05/2024

Location ID: 480999 Location Name: Spinney 3N66W9 1-8

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: 10/29/2021 Email: alexandria.ota@pdce.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: 12/17/2021

Expiration Date: 10/05/2024

API NUMBER

05 123 51636 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.

Condition of Approval

COA Type	Description
Drilling/Completion Operations	<p>Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:</p> <p>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.</p> <p>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 COGCC engineering for approval prior to stimulation.</p> <p>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.</p>
Drilling/Completion Operations	<p>1) Submit Form 42 electronically to COGCC 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.</p> <p>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.</p>
Drilling/Completion Operations	In the Form 5A comments, operator will certify that this well has no treated interval within 150' of another operator's well for which a signed Stimulation Setback Consent was not obtained.
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator assures that this offset will be remediated per the Horizontal Offset Policy (option 4). Operator will submit a Form 42 ("OTHER – AS SPECIFIED BY PERMIT CONDITION") 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.</p> <p>Surface and production casing pressures of this offset well list will be actively monitored during stimulation of this well. Operator will assure that the offset well's bradenhead is monitored via pressure transducer during the entire stimulation treatment of this pad. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and COGCC Engineering notified. After stimulation is complete, a Form 4 Sundry may be required describing how Option 4 work was completed and include a summary of the monitoring details.</p> <p>123-15106UPRC #9-11K 123-16552HSR-CHRISTY #3-14 123-24257DEVON #38-8 123-29576GRAZNAK #37-11 123-29585GRAZNAK #39-11 123-22163MORNING FRESH #11-10</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the non-operated listed well. 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.</p> <p>123-12780HATCH-UPRR #42-11 #1 123-21966LUCKY L #9-23 123-22610MORNING FRESH #14-10X 123-15661HSR-HUNTER #12-11 123-15662HSR-KILDALL #13-11 123-16041HSR-COOPER #12-10A 123-16197HSR-BONN #16-10A 123-15696HSR-WALKER #11-11 A 123-37010MORNING FRESH #15N-15HZ 123-29804MORNING #24-10</p>
5 COAs	

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	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

<u>Att Doc Num</u>	<u>Name</u>
402065356	FORM 2 SUBMITTED
402828857	DEVIATED DRILLING PLAN
402828861	DIRECTIONAL DATA
402828869	WELL LOCATION PLAT
402828870	OPEN HOLE LOGGING EXCEPTION
402828901	STIMULATION SETBACK CONSENT
402830185	OffsetWellEvaluations Data
402903527	OFFSET WELL EVALUATION

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Spacing Order number and lease info added with Operators concurrence. Permitting Review Complete. Final Review Completed.	11/05/2021
Permit	Missing lease information Missing spacing order number	11/02/2021
OGLA	The Commission approved OGDG #480337 on 10/6/2021 for the Oil and Gas Location related to this Form 2. OGLA task passed.	10/29/2021

Total: 3 comment(s)