

FORM
2

Rev
12/05

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:

400382544

Date Received:

04/03/2013

PluggingBond SuretyID

20090078

APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

2. TYPE OF WELL

OIL ☒ GAS ☐ COALBED ☐ OTHER _____
SINGLE ZONE ☒ MULTIPLE ☐ COMMINGLE ☐

Refiling ☐

Sidetrack ☐

3. Name of Operator: PDC ENERGY INC

4. COGCC Operator Number: 69175

5. Address: 1775 SHERMAN STREET - STE 3000

City: DENVER State: CO Zip: 80203

6. Contact Name: Liz Lindow Phone: (303)831-3974 Fax: ()

Email: liz.lindow@pdce.com

7. Well Name: Sorin Natural Resources Well Number: 2R-223

8. Unit Name (if appl): _____ Unit Number: _____

9. Proposed Total Measured Depth: 11523

WELL LOCATION INFORMATION

10. QtrQtr: NWNE Sec: 2 Twp: 4N Rng: 66W Meridian: 6

Latitude: 40.348440 Longitude: -104.739740

Footage at Surface: 20 feet FNL 1394 feet FEL

11. Field Name: Wattenberg Field Number: 90750

12. Ground Elevation: 4671 13. County: WELD

14. GPS Data:

Date of Measurement: 11/21/2012 PDOP Reading: 1.8 Instrument Operator's Name: Brian Rottinghaus

15. If well is ☐ Directional ☒ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL
818 FNL 847 FEL 500 FSL 834 FEL
Sec: 2 Twp: 4N Rng: 66W Sec: 2 Twp: 4N Rng: 66W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 471 ft

18. Distance to nearest property line: 20 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 171 ft

20. LEASE, SPACING AND POOLING INFORMATION

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
Niobrara	NBRR		160	GWA

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: _____

22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

23. Is the Surface Owner also the Mineral Owner? ☐ Yes ☒ No Surface Surety ID#: 19990086

23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☐ Yes ☐ No

23b. If 23 is No: ☐ Surface Owners Agreement Attached or ☒ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

See mineral lease map. Horizontal wellbore crosses multiple leases within drilling and spacing unit. Distance to mineral lease line is 0'; distance to unit boundary is 500'.

25. Distance to Nearest Mineral Lease Line: 0 ft

26. Total Acres in Lease: 11

DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☐ Yes ☒ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☐ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☒ Land Spreading ☐ Disposal Facility Other: _____

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	12+1/4	9+5/8	36	0	875	830	875	0
1ST	8+3/4	7	26	0	7,446	650	7,446	500
1ST LINER	6+1/8	4+1/2	11.6	6242	11,523			

32. BOP Equipment Type: ☐ Annular Preventer ☒ Double Ram ☐ Rotating Head ☐ None

33. Comments 7" casing string will be cemented to at least 200' above Niobrara, around 500' from surface. CBL will only be run in the vertical section of the wellbore. Conductor casing will not be used. Operator requests an exception location per rule 318Aa, rule 318Ac, rule 603a2: well will not be drilled in a legal drilling window or twinned with an existing well, and is within 150' of the nearest property line. Waivers attached. Per rule 318Ae, the Operator requests the proposed spacing unit consisting of 160 acres, E2E2 of Sec 2 T4N R66W. Proposed spacing unit map and 30-day certificate is attached.

34. Location ID: _____

35. Is this application in a Comprehensive Drilling Plan? ☐ Yes ☒ No

36. Is this application part of submitted Oil and Gas Location Assessment? ☒ Yes ☐ No

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

Signed: _____ Print Name: Liz Lindow

Title: Regulatory Analyst Date: 4/3/2013 Email: liz.lindow@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 and applicable orders and is hereby approved.

COGCC Approved: Matthew Lee Director of COGCC Date: 5/15/2013

API NUMBER

05 123 37312 00

Permit Number: _____ Expiration Date: 5/14/2015

CONDITIONS OF APPROVAL, IF ANY:

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.

- 1) Provide notice of MIRU via an electronic Form 42.
- 2) Comply with Rule 317.i and provide cement coverage to a minimum of 200' above the Niobrara and from 200' below Sussex to 200' above Sussex. Verify cement coverage with a cement bond log per 317.o.

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

Attachment Check List

Att Doc Num	Name
2482320	SURFACE CASING CHECK
400382544	FORM 2 SUBMITTED
400383416	DEVIATED DRILLING PLAN
400383417	WELL LOCATION PLAT
400383422	PROPOSED SPACING UNIT
400383423	DIRECTIONAL DATA
400383429	VARIANCE REQUEST
400397685	30 DAY NOTICE LETTER
400397686	MINERAL LEASE MAP
400397687	EXCEPTION LOC WAIVERS
400397688	EXCEPTION LOC WAIVERS
400397689	EXCEPTION LOC REQUEST
400399221	OFFSET WELL EVALUATION

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Data Entry	BHL adjusted for irregularity of section is 852 FEL, putting it 477' from the west edge of the spacing unit. API 5 (nearest well) bottom hole is 1023 FEL. Distance to 2R-225 wellbore is 1023-852=171'. Ready to pass.	4/17/2013 9:58:21 AM
Permit	Nearest well permitted/completed in the same formation is API #5, 130'. Requires Variance Request. The BHL calculates to 915 FEL, putting the BHL at 415' from the western boundary of the Proposed Spacing Unit.	4/15/2013 3:00:24 PM
Engineer	Evaluated offset wells for adequate cement coverage.	4/9/2013 8:18:37 AM
Permit	This form has passed completeness.	4/4/2013 1:25:18 PM
Permit	Form not reviewed. Opr requested form be returned to draft.	4/3/2013 1:08:53 PM

Total: 5 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	Operator will comply with COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012. The Colorado Oil and Gas Conservation Commission (COGCC) has established this Policy Regarding Bradenhead Monitoring During Hydraulic Fracturing Treatments ("Treatment") in the Greater Wattenberg Area ("GWA") pursuant to COGCC 207.a. ("Policy"). This Policy applies to oil and gas operations in the GWA as defined by the COGCC Rules of Practice and Procedure.

Total: 1 comment(s)