

FORM

2

Rev
12/05

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



| | | | |
|----|----|----|----|
| DE | ET | OE | ES |
|----|----|----|----|

APPLICATION FOR PERMIT TO:

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

2. TYPE OF WELL

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

 Refiling ☐
 Sidetrack ☐

Document Number:

400052953

Plugging Bond Surety

19990086

3. Name of Operator: PETROLEUM DEVELOPMENT CORPORATION

4. COGCC Operator Number: 69175

5. Address: 1775 SHERMAN STREET - STE 3000

City: DENVER State: CO Zip: 80207

6. Contact Name: Sarah Garrett Phone: (303)860-5803 Fax: (303)860-5838

Email: sgarrett@petd.com

7. Well Name: Ryland Well Number: 20RD

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

9. Proposed Total Measured Depth: 7831

WELL LOCATION INFORMATION

10. QtrQtr: NWNW Sec: 21 Twp: 4N Rng: 67W Meridian: 6

Latitude: 40.303160 Longitude: -104.904570

Footage at Surface: 902 FNL/FSL FNL 298 FEL/FWL FWL

11. Field Name: WATTENBERG Field Number: 90750

12. Ground Elevation: 4922 13. County: WELD

14. GPS Data:

Date of Measurement: 01/27/2010 PDOP Reading: 6.0 Instrument Operator's Name: Thomas G Carlson

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
 55 FNL 1210 FEL 55 FNL 1210 FEL
 Sec: 20 Twp: 4N Rng: 67W Sec: 20 Twp: 4N Rng: 67W
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: 273 ft

18. Distance to nearest property line: 155 ft 19. Distance to nearest well permitted/completed in the same formation: 2230 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 Codell | NBCD | 407-87 | 160 | GWA |
| Sussex Shannon | SXSN | N/A | 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 Bon ☐ \$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):
BHL: Section 20: E/2; Township 4 North, Range 67 West; SHL: Section 21: W/2, Township 4 North, Range 67 West

25. Distance to Nearest Mineral Lease Line: 298 ft 26. Total Acres in Lease: 320

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 27 or 28 are yes, is this location in a sensitive area (Rule 903)? ☐ Yes ☐ No If 28, 29, or 30 are "Yes" a pit permit may be required.

31. Mud disposal: ☒ Offsite ☐ Onsite

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 | Weight Per Foot | Setting Depth | Sacks Cement | Cement Bottom | Cement Top |
|-------------|--------------|----------------|-----------------|---------------|--------------|---------------|------------|
| SURF | 12+1/4 | 8+5/8 | 24 | 610 | 360 | 610 | 0 |
| S.C. 1.1 | 7+7/8 | 4+1/2 | 10.5 | 7,831 | 250 | 7,831 | 6,400 |

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

33. Comments Conductor casing will not be used. PDC purchased the property on 4/30/10. Well is part of a 15 well pad consisting of the following: Ryland 41-20D, Ryland 20RD, Ryland 20UD, Ryland 20CD, Ryland 20VD, Ryland 42-20D, Ryland 20SD, EEE 11-21DU, EEE 21-21DU, EEE 21ADU, Centennial 21GDU, Centennial 12-21DU, Centennial 21KDU, Centennial 22-21DU, EEE 21NDU. All 15 wells will be tied into a common tank battery on-site.

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: Sarah Garrett

Title: Landman Date: _____ Email: sgarrett@petd.com

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: _____ Director of COGCC Date: _____

Permit Number: _____ Expiration Date: _____

API NUMBER

05

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.

Attachment Check List

| Att Doc Num | Name | Doc Description |
|-------------|------------------------|--|
| 400052994 | PLAT | Ryland 20RD - Plat.pdf |
| 400052995 | TOPO MAP | Ryland 20RD - TOPO.pdf |
| 400052996 | DEVIATED DRILLING PLAN | Ryland 20RD - Directional.pdf |
| 400052997 | 30 DAY NOTICE LETTER | Ryland-Marostica 305.e Land Owner Notice.pdf |
| 400052998 | PROPOSED SPACING UNIT | Ryland 20RD BHL Map.pdf |
| 400058976 | OTHER | 20-Day 318Ae Certification to Dir.pdf |
| 400058977 | EXCEPTION LOC WAIVERS | Marostica Pad_Hermetz_SLW_Signed_041810_scan.pdf |
| 400058978 | EXCEPTION LOC REQUEST | Surface Location Waiver Letter to Director.pdf |

Total Attach: 8 Files