

FORM  
2  
Rev  
08/16

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:  
401096716  
**(RE-SUBMITTED)**

APPLICATION FOR PERMIT TO:

Drill       Deepen       Re-enter       Recomplete and Operate

Date Received:

TYPE OF WELL OIL  GAS  COALBED  OTHER \_\_\_\_\_ Refiling   
ZONE TYPE SINGLE ZONE  MULTIPLE ZONES  COMMINGLE ZONES  Sidetrack

Well Name: Bennett Well Number: 6F-312  
Name of Operator: PDC ENERGY INC COGCC Operator Number: 69175  
Address: 1775 SHERMAN STREET - STE 3000  
City: DENVER State: CO Zip: 80203  
Contact Name: Kelsi Welch Phone: (303)831-3974 Fax: ( )  
Email: kelsi.welch@pdce.com

**RECLAMATION FINANCIAL ASSURANCE**  
Plugging and Abandonment Bond Surety ID: 20160047

**WELL LOCATION INFORMATION**  
QtrQtr: SWNW Sec: 6 Twp: 6N Rng: 64W Meridian: 6  
Latitude: 40.516390 Longitude: -104.598020  
Footage at Surface: 2095 Feet FNL/FSL FNL 988 Feet FEL/FWL FWL  
Field Name: WATTENBERG Field Number: 90750  
Ground Elevation: 4775 County: WELD  
GPS Data:  
Date of Measurement: 02/03/2016 PDOP Reading: 1.7 Instrument Operator's Name: Casey Kohout  
If well is  Directional  Horizontal (highly deviated) **submit deviated drilling plan.**  
Footage at Top of Prod Zone: FNL/FSL FNL 719 Feet FEL/FWL FWL 742 Feet Bottom Hole: FNL/FSL FNL 778 Feet FEL/FWL FEL 500 Feet  
Sec: 6 Twp: 6N Rng: 64W Sec: 6 Twp: 6N Rng: 64W

**LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT**  
Surface Ownership:  Fee  State  Federal  Indian  
The Surface Owner is:  is the mineral owner beneath the location.  
(check all that apply)  is committed to an Oil and Gas Lease.  
 has signed the Oil and Gas Lease.  
 is the applicant.  
The Mineral Owner beneath this Oil and Gas Location is:  Fee  State  Federal  Indian  
The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes  
The right to construct the Oil and Gas Location is granted by: Surface Use Agreement  
Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_

## LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Please see detailed lease description and map attached.

Total Acres in Described Lease: 144 Described Mineral Lease is:  Fee  State  Federal  Indian

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

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 663 Feet  
Building Unit: 689 Feet  
High Occupancy Building Unit: 2910 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 977 Feet  
Above Ground Utility: 968 Feet  
Railroad: 5280 Feet  
Property Line: 231 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

## DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a:  Buffer Zone  
 Exception Zone  
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 05/11/2016

## SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 139 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 500 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

PSU: N2N2 of Section 6 in T6N R64W

## 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           |                         | 160                           | GWA                                  |

## DRILLING PROGRAM

Proposed Total Measured Depth: 11478 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: 1207 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 Operations Plan)

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? No

BOP Equipment Type:  Annular Preventor  Double Ram  Rotating Head  None

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Land application

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Drill cuttings will be land applied at PDC spread fields with COGCC Facility ID 444255, 159534, 436033, or 434889.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: 444255 or Document Number:

## CASING PROGRAM

| 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             | 1665          | 920       | 1665    | 0       |
| 1ST         | 8+1/2        | 5+1/2          | 20    | 0             | 11478         | 2035      | 11478   | 0       |

Conductor Casing is NOT planned

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

## GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

## RULE 502.b VARIANCE REQUEST

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number

## OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_
- Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

## OPERATOR COMMENTS AND SUBMITTAL

Comments 5.5" casing string will be cemented to surface. CBL will only be run in the vertical section of the wellbore.

The Distance to the completed portion of the nearest well on the "Spacing & Formations" tab was measured to the Kreps 31-6. The Distance to the nearest wellbore belonging to another operator on the "Drilling & Waste Plans" tab was measured to the Mach One E01-675. Both distances were measured in 2D via COGCC GIS mapping.

PDC requests an exception to rule 317.p.: PDC will run a cased hole log.

The subject well will have a treated interval less than 150' from the treated interval of the Moody 21-6. All wells are owned by PDC Energy, Inc. so no stimulation setback consent is needed.

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 305151

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: \_\_\_\_\_ Print Name: Kelsi Welch

Title: Regulatory Tech Date: \_\_\_\_\_ Email: kelsi.welch@pdce.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: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

API NUMBER

05

## 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.

### COA Type

### Description

| COA Type | Description |
|----------|-------------|
|          |             |

## Best Management Practices

| No | BMP/COA Type    | Description  |
|----|-----------------|--|
| 1  | Planning        | 604.c.(2).W. Site Specific Measures: Lights should be turned downward and away from building units within the 1,000 foot buffer area. Dust mitigation will be provided as necessary on lease access roads. |
| 2  | Traffic control | 604c.(2).D. Traffic Plan: If required by the local government, a traffic plan will be coordinated with the local jurisdiction prior to commencement of operations.   |

|    |                      |   |
|----|----------------------|---|
| 3  | Traffic control      | "604c.(2).S. Access Roads: PDC will utilize an improved lease access road off of County Road 49 (gravel) for all heavy truck traffic and rig moves along with drilling operations and maintenance equipment. The lease access road will be properly constructed and maintained to accommodate for local emergency vehicle access. Dust will be mitigated as necessary on lease access road. PDC will employ practices for control of fugitive dust caused by operations, these include but are not limited to the use of speed restrictions and regular road maintenance."<br>"   |
| 4  | General Housekeeping | 604c.(2).T. Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned.   |
| 5  | General Housekeeping | 604c.(2).P. Removal of Surface Trash: A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation.   |
| 6  | General Housekeeping | 604c.(2).N. Control of Fire Hazards: PDC will ensure that any material that might be deemed a fire hazard will be will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s). PDC installs automation equipment for tank level and pressure monitoring inside the bermed area that complies with API RP 500 classifications and with the current national electrical code as adopted by the State of Colorado.   |
| 7  | Dust control         | "805.b(1)-(c) Odors and Dust: Oil and gas facilities and equipment will operate in a manner that odors and dust do not constitute a nuisance or hazard to public welfare. Odors: Oil and gas operations will be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII. Dust; PDC will employ practices for control of fugitive dust caused by operations, these include but are not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high-wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. When necessary, PDC coordinates dust mitigation with the county on gravel roads, places road base where allowed by surface owner around tanks and wellheads to minimize dust, and will water the roads and locations when dry. In addition, automation is used on all new wells to minimize truck traffic. During winter operations normal dust abatement is not provided unless requested by surrounding land owners. Fugitive dust control will be incorporated as needed during all other months of drilling and completion operations." |
| 8  | Construction         | 604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.  |
| 9  | Construction         | 604c.(2).M. Fencing Requirements: The completed wellsites will be surrounded with a fence and gate. PDC personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or PDC personnel shall be on-site during drilling and completion operations.  |
| 10 | Noise mitigation     | "604c.(2).A. Noise: WELL PAD: PDC has conducted baseline noise surveys for all drilling rigs that are being contracted and has also conducted a baseline noise survey for hydraulic fracture stimulation operations on a representative horizontal well. These baseline surveys are utilized for site specific noise modeling to determine if any mitigation measures are warranted. A review was conducted to identify potential receptors within 1000 feet of the proposed pad site. There are five (5) building units of concern located 514' SW, 782' SW, 908' SW, 965' W and 1000' SW. Light and sound mitigation will be installed to the South and West of the proposed location. Methods of noise mitigation shall include but not be limited to hay bales, sound walls, or customized semi-trailers. PRODUCTION FACILITIES: It is not anticipated that noise mitigation will be necessary at the proposed tank battery location. After construction is completed, equipment installed and production begins, noise levels will be assessed to determine if mitigation measures will be required to be compliant with Rule 802."<br>"   |

|    |                                |   |
|----|--------------------------------|---|
| 11 | Emissions mitigation           | 604c.(2).C. Green Completions: Flowlines, 48" HLPs, sand traps all capable of supporting green completions as described in rule 805 shall be installed at any Oil and Gas location at which commercial quantities of gas and or oil are reasonable expected to be produced based on existing wells. All green flow back equipment will be able to handle more than 1.5 times the amount of any know volumes in the surrounding field. First sign of salable gas will be put into production equipment and turned down line.   |
| 12 | Drilling/Completion Operations | One of the first wells drilled on the pad will be logged with Cased hole Pulsed Neutron Log with Gamma Ray Log from 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 clearly state "No open-hole logs were run" and shall reference the Rule 317.p Exception granted for the well.   |
| 13 | 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.  |
| 14 | Drilling/Completion Operations | Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5. |
| 15 | Drilling/Completion Operations | 604c.(2).U. Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a. (5)., once the well has been plugged and abandoned, PDC will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging.  |
| 16 | Drilling/Completion Operations | 604c.(2).Q. Guy Line Anchors: Rig guy wires are anchored to the rig's base beam that the rig stands on, temporary and permanent anchors will not be set on this location.   |
| 17 | Drilling/Completion Operations | 604c.(2).L. Drill Stem Tests: PDC does not conduct drill stem tests, but will seek prior approval from the director if a drill stem test will be preformed.   |
| 18 | Drilling/Completion Operations | 604c.(2).K. Pit Level Indicators: PDC uses an Electronic Drilling Recorder (EDR) with pit level monitor(s) and alarm(s) for production rigs. Basic level gages are used on steel pits utilized for the surface rig.   |
| 19 | Drilling/Completion Operations | 604c.(2).J. BOPE for Well Servicing Operations: All valves will also be tested to maximum rating by a third party prior to being delivered to location. Whenever snubbing operations are being used the snubbing stack will be pressure tested at the same time the BOPE is being tested which consist of a single pipe ram and a annular bag.  |

|    |                                |   |
|----|--------------------------------|---|
| 20 | Drilling/Completion Operations | 604c.(2).I. BOPE Testing for Drilling Operations: PDC's contractors will supply a double ram BOPE (Blinds and pipes). BOPE is always function tested and all seals and ram block rubbers are inspected. After installation of the BOPE, PDCE conducts a pressure test on the BOPE at a low pressure of (200-400 psi) and a high pressure test with a third party tester, all tests are digitally recorded and any failed equipment or seals are replaced and re-tested. |
|----|--------------------------------|---|

Total: 20 comment(s)

**Applicable Policies and Notices to Operators**

|  |
|--|
| Policy   |
| Notice Concerning Operating Requirements for Wildlife Protection.<br><a href="http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf">http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf</a> |

**Attachment Check List**

| <b>Att Doc Num</b> | <b>Name</b>                 |
|--------------------|-----------------------------|
| 401096716          | FORM 2 SUBMITTED            |
| 401110265          | FORM 2 SUBMITTED            |
| 401110266          | FORM 2 REJECTED             |
| 401110568          | WELL LOCATION PLAT          |
| 401110569          | DEVIATED DRILLING PLAN      |
| 401110570          | DIRECTIONAL DATA            |
| 401110571          | PROPOSED PLUGGING PROCEDURE |
| 401110572          | EXCEPTION LOC REQUEST       |
| 401110573          | EXCEPTION LOC WAIVERS       |
| 401110574          | OPEN HOLE LOGGING EXCEPTION |
| 401110575          | SURFACE AGRMT/SURETY        |
| 401110576          | LEGAL/LEASE DESCRIPTION     |
| 401110577          | MINERAL LEASE MAP           |

Total Attach: 13 Files

**General Comments**

| <b>User Group</b> | <b>Comment</b> | <b>Comment Date</b> |
|-------------------|----------------|---------------------|
|                   |                |                     |

Total: 0 comment(s)

**Public Comments**

No public comments were received on this application during the comment period.

**RE-SUBMITTED**