

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:

401035482

## APPLICATION FOR PERMIT TO:

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

Date Received:

05/04/2016

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_Refiling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: High Pointe LLC

Well Number: 10F-212

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: NWNW Sec: 10 Twp: 5N Rng: 67W Meridian: 6

Latitude: 40.419150

Longitude: -104.886790

Footage at Surface: 769 Feet FNL/FSL FNL 425 Feet FEL/FWL FWL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4923

County: WELD

GPS Data:

Date of Measurement: 11/18/2015 PDOP Reading: 1.9 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 761 FNL 820 FWL 780 FNL 500 FEL FEL  
 Sec: 10 Twp: 5N Rng: 67W Sec: 10 Twp: 5N Rng: 67W

## LOCATION SURFACE &amp; MINERALS &amp; RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe 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: oil and gas lease

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.)

Township 5 North, Range 67 West, 6th P.M., Section 10: W/2 EXCEPT NE/4NW/4, and SE/4, and W/2NE/4

Total Acres in Described Lease: 520 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: 1999 Feet  
Building Unit: 1999 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 432 Feet  
Above Ground Utility: 516 Feet  
Railroad: 4752 Feet  
Property Line: 425 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:

## 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: 88 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 10 in T5N R67W

## 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: 11323 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: 1030 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+1/2	9+5/8	36	0	1500	1022	1500	0
1ST	8+1/2	5+1/2	20	0	11323	2035	11323	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

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

Distance to the completed portion of the nearest well was measured to via the anti-collision report located within the deviated drilling plan attached, beginning on Page 8. PDC's – 88' to the B&B 10-11.

Distance to the nearest wellbore belonging to another operator was measured using COGIS Map in 2D (plan view) from the Skyway Federal 31-11.

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

Location ID: \_\_\_\_\_

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 Analyst Date: 5/4/2016 Email: kelsi.welch@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:  Director of COGCC Date: 9/12/2016

Expiration Date: 09/11/2018

### API NUMBER

05 123 43554 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.

<u>COA Type</u>	<u>Description</u>
	<p>Operator acknowledges the proximity of the listed wells: Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) 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") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>EDWARDS 43-9 (API NO 123-20867)STEPHENS FOE 10-1 (API NO 123-11369) WARREN 10-1 (API NO 123-11483)STEPHENS FOE 10-2 (API NO 123-11832) STEPHENS FOE 10-3 (API NO 123-12150)HONDO 1 (API NO 123-20583)</p>
	<p>Operator acknowledges the proximity of the listed wells: Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) 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") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>HSR-KNOX 13-3 (API NO 123-19093)HSR-KNOX 14-3 (API NO 123-19094) HSR-KNOX 15-3 (API NO 123-19095)</p>
	<p>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 48 hour spud notice for all subsequent wells drilled on the pad.</p> <p>2) Comply with Rule 317.j and provide cement coverage from the end of production casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.</p>
	<p>Bradenhead tests shall be performed and reported 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.</p> <p>2) 6 months after rig release, prior to stimulation.</p> <p>3) Within 30 days of first production, as reported on Form 5A.</p>

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	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.
2	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with openhole Resistivity Log and 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 and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which openhole logs were run.
3	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.

Total: 3 comment(s)

## Applicable Policies and Notices to Operators

Policy
Notice Concerning Operating Requirements for Wildlife Protection. <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>
Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area. <a href="http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf">http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf</a>

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401035482	FORM 2 SUBMITTED
401035520	OffsetWellEvaluations Data
401035545	PROPOSED SPACING UNIT
401035547	DEVIATED DRILLING PLAN
401035548	DIRECTIONAL DATA
401035550	30 DAY NOTICE LETTER
401035551	EXCEPTION LOC WAIVERS
401035711	EXCEPTION LOC REQUEST
401041059	WELL LOCATION PLAT

Total Attach: 9 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	Revised surface casing setting depth from 1350', to 1500', and adjusted cement quantity from 920 sacks to 1022 sacks, operator agreed.	9/12/2016 8:52:25 AM

Permit	Final Review Completed.	8/29/2016 1:44:18 PM
Permit	Per operator removed the Open Hole Logging Exception letter and changed the BMP to will run logs. Changed Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation from 239 to 88'. Permitting Review Complete.	8/29/2016 11:04:27 AM
Permit	Open Hole Logging BMP submitted by operator.	8/29/2016 11:04:17 AM
Permit	ON HOLD: requesting removal of Open Hole Logging Exception letter and change to BMP.	8/29/2016 11:04:16 AM
LGD	<p>The City of Greeley respectfully requests that the State withhold approval of any State permit until the operator successfully receives local land use approval, in this instance a Use by Special Review permit. At this time a formal application has not been submitted to the City by the applicant. The City of Greeley requests that, as part of the approval of the Form 2 Permit, all design and operational elements of the USR permit be honored, consistent, and incorporated.</p> <p>If the COGCC does not withhold approval, the City then requests that the State application be approved with the condition that the Form 2 Permit be subsequently formally amended to incorporate any site and/or operational standards that get finalized through the local Use by Special Review permit. The City believes this deference is consistent with, and in the spirit of, the standing Memorandum of Understanding between the City of Greeley and the COGCC, and at the same time the City acknowledges the State's right to determine areas of operational conflict that would otherwise prohibit the incorporation of such standards into an Amended Form 2 Permit.</p> <p>A number of preliminary review comments (i.e., pre-application notes) were provided to the operator on 11/30/15. The City would anticipate and benefit from on-going discussion with the applicant, and it would be appropriate for the operator to submit a formal land use application, if indeed it is the operator's intent to begin development of the site for drilling.</p> <p>To briefly summarize comments provided directly to the applicant, in general the layout of the proposed oil and gas facilities in several clustered areas is particularly expansive. The distribution proposed will make it difficult and costly to effectively screen the site, while (seemingly unnecessarily) extending the amount of land disturbed for completion/recompletion operations. If the overall use proves to be supportable, the City encourages the operator to consider ways to re-design the site to be more compact and/or contain fewer facilities. The non-compact nature of the proposed design exacerbates a concern that the proposed facilities would unnecessarily consume and limit land use options in the future.</p> <p>Other comments provided include those expressing concern about limitations caused on future logical growth extension of the city, a requirement to meet minimum city setbacks, a commitment to various specified best management practices, a need to design for visual mitigation (particularly relative to Highway 34, an critically important gateway corridor into Greeley), landscaping requirements, and options for temporary water supply to the site.</p> <p>It is the expectation of the City that these and other matters identified through the benefit of a complete design and land application to the City would be appropriately addressed through the City's USR process.</p>	3/2/2016 3:30:15 PM
Engineer	Offset Wells Evaluated.	3/1/2016 1:40:55 PM
Permit	Comment period has been extended at request of Greeley LGD to 6/10/2016.	5/16/2016 1:47:23 PM

Permit	Passed completeness.	5/11/2016 4:13:44 PM
Permit	Updated Surety Bond ID# per operator request.	5/11/2016 4:09:30 PM

Total: 10 comment(s)