

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:  
401415245

APPLICATION FOR PERMIT TO:

Drill       Deepen       Re-enter       Recomplete and Operate

Date Received:  
07/30/2018

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

Refiling   
Sidetrack

Well Name: Wakeman      Well Number: 20-17-4CDH  
Name of Operator: PETROSHARE CORPORATION      COGCC Operator Number: 10454  
Address: 9635 MAROON CIRCLE #400  
City: ENGLEWOOD      State: CO      Zip: 80112  
Contact Name: Meghan Grimes      Phone: (720)441-0720      Fax: ( )  
Email: mgrimes@petrosharecorp.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20170053

WELL LOCATION INFORMATION

QtrQtr: SWSE      Sec: 20      Twp: 1S      Rng: 65W      Meridian: 6  
Latitude: 39.944060      Longitude: -104.685530

Footage at Surface: 293 Feet      FNL/FSL      FEL/FWL  
FSL      2023 Feet      FEL

Field Name: WATTENBERG      Field Number: 90750  
Ground Elevation: 5201      County: ADAMS

GPS Data:  
Date of Measurement: 09/08/2017      PDOP Reading: 2.1      Instrument Operator's Name: Scott Sherard

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  
460      FSL      460      FEL      355      FNL      460      FEL  
Sec: 20      Twp: 1S      Rng: 65W      Sec: 17      Twp: 1S      Rng: 65W

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.)

T1S R65W Sec. 17: NW

Total Acres in Described Lease: 160 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: 1384 Feet  
 Building Unit: 1679 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 1696 Feet  
 Above Ground Utility: 320 Feet  
 Railroad: 5280 Feet  
 Property Line: 293 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: 435 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

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

**SPACING & FORMATIONS COMMENTS**

A 1280-acre spacing application (temporary docket number 171000663) was submitted for the October 2018 hearing covering T1S R65W Secs. 17 & 20.

**OBJECTIVE FORMATIONS**

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| CODELL                 | CODL           | 407-2516                | 1280                          | Secs. 17 & 20: All                   |

## DRILLING PROGRAM

Proposed Total Measured Depth: 17964 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: 530 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? Yes

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: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? \_\_\_\_\_

Reuse Facility ID: \_\_\_\_\_ 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 |
|-------------|--------------|----------------|-------|---------------|---------------|-----------|---------|---------|
| CONDUCTOR   | 20           | 16             | 40    | 0             | 50            | 100       | 50      | 0       |
| SURF        | 13+1/2       | 9+5/8          | 36    | 0             | 1800          | 630       | 1800    | 0       |
| 1ST         | 8+1/2        | 5+1/2          | 20    | 0             | 17964         | 2750      | 17964   |         |

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 Distance from completed portion of the wellbore to nearest wellbore permitted or completed in the same formation was measured to the proposed Wakeman 20-17-4NAH using horizontal and vertical separation.

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged well was measured to the Producing Wolfe 1 (API No. 05-001-08274) owned and operated by Verdad Resources.

This well has a bottom-hole location beyond the unit boundary setback. The bottom of the completed interval will be within the unit boundary setback at 460' FNL and 460' FEL of Section 17. The wellbore beyond the unit boundary setback will be physically isolated and will not be completed.

This application is in a Comprehensive Drilling Plan No 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: Kimberly Rodell

Title: Permit Agent Date: 7/30/2018 Email: krodell@upstreampm.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: 1/25/2019

Expiration Date: 01/24/2021

|                                      |
|--------------------------------------|
| <b>API NUMBER</b><br>05 001 10396 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>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad.</p> <p>2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara and from 200' below Sussex to 200' above Sussex. Verify coverage with cement bond log.</p> <p>3) Oil-based drilling fluid is to be used only after setting surface casing.</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. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.</p> <p>2) 6 months after rig release, prior to stimulation (delayed completions).</p> <p>3) Within 30 days of first production, as reported on Form 5A.</p>  |
|                 | <p>Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the DJ Basin Horizontal Offset Policy (option 3) and ensure all applicable documentation is submitted. Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>001-06979, BOX ELDER FARMS 41-20;</p> <p>Operator acknowledges the proximity of the listed non-operated wells. Operator agrees to provide mitigation Option 1 or 2 (per the DJ Basin Horizontal Offset Policy), ensure all applicable documentation is submitted, and submit Form 42(s) ("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. Operator will assure that the well's required aquifer isolation is present and verified.</p> <p>001-08882, AMOCO 24-17; 001-08859, AMOCO 44-17; 001-08274, WOLFE 1; 001-07623, MELISSA 1</p> |
|                 | <p>COGCC COA: Operator will insure the wellbore beyond the unit boundary setback is physically isolated and is not completed. In the Operator Comments on the Form 5A the operator will (1) report the footages from the section lines of the bottom of the completed interval (2) describe how the wellbore beyond the unit boundary setback is physically isolated and (3) certify that none of the wellbore beyond the setback was completed.</p>   |

## Best Management Practices

| <u>No</u> | <u>BMP/COA Type</u>            | <u>Description</u>  |
|-----------|--------------------------------|---|
| 1         | Drilling/Completion Operations | <p>Identification of P&amp;A wells (Rule 604.c.(2)U)</p> <p>Petro Share Corporation shall identify the location of the P&amp;A wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument. P&amp;A wellbores shall be cutoff well below ground surface in agricultural areas to provide for landowners to safely farm the reclaimed well area.</p> |

|   |                                |   |
|---|--------------------------------|---|
| 2 | Drilling/Completion Operations | <p>Drill stem tests (Rule 604.c.(2)L)</p> <p>Conventional drill stem tests will not be conducted on DJ Basin horizontal wells currently being executed or planned by Petro Share Corporation. If plans change in the future, a well specific drill stem testing plan will be prepared for that particular well. Note that Petro Share Corporation may elect to use one of several available wireline deployed tools for the purpose of measuring down hole formation pressures and/or collecting down hole fluid samples from the target formation(s) of a particular well.</p>   |
| 3 | Drilling/Completion Operations | <p>Wellbore Collision Prevention – Rule 317.r</p> <p>Prior to drilling operations, Petro Share Corporation 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 well path with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottom hole 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.</p>   |
| 4 | Drilling/Completion Operations | <p>Stimulation Setback – Rule 317.s</p> <p>Petro Share Corporation shall obtain signed written consent for any portion of the proposed wellbore’s treated interval within 150’ of an existing (producing, Shut-in, or temporarily abandoned) or permitted oil and gas well’s treated interval belonging to another operator prior to completion of the well.</p>  |
| 5 | Drilling/Completion Operations | <p>BOPE for well servicing (Rule 604.c.(2)J)</p> <p>A BOPE with a minimum pressure rating of 3,000 psi will be utilized. At a minimum it will consist of 2 ram preventers and 1 annular preventer. The blind rams will be positioned below the pipe rams. A backup system of pressure control will be onsite consisting of at a minimum 1,000 psi accumulator (backup pressure). Accumulator is tested to 1,000 psi. Operator may use fixed sized pipe rams matching the tubular size. The annular preventer will be pressure tested to 250 psi low and 2,000 psi high for 10 minutes each. The ram preventers will be tested to 250 psi low and 2,500 psi high for 10 minutes each. All remaining well control equipment will be tested to 250 psi low and 2,500 psi high for 10 minutes each. The pressure tests will be conducted when the equipment is first installed and every 30 days thereafter. Pipe rams and blind rams will be function tested before every well service operation. Annual BOP inspections and pressure tests will be performed by the service company and will be charted &amp; retained for 1 year. Backup stabbing valves shall be used on operations that require reverse circulation. Valves will be pressure tested before each well service operation in low pressure and high-pressure range. The Petro Share Corporation onsite representative will be certified in Well Control Operations by a Well-Cap certified training service.</p> |
| 6 | Drilling/Completion Operations | <p>Bradenhead Monitoring</p> <p>Petro Share Corporation will comply with the “COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area”, dated May 29, 2012.</p>  |
| 7 | Drilling/Completion Operations | <p>Multi Well Open-Hole Logging – Rule 317.p</p> <p>One of the first wells drilled on the pad will be logged with an open-hole Resistivity 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 (intermediate casing or production liner if run) to the surface casing. The horizontal portion of every well will be logged with a MWD/GR 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 an open hole log shall clearly state “No open-hole logs were run” and shall clearly identify (by API#, well name and number) the well in which open-hole logs were run.</p>  |

Total: 7 comment(s)

### **Applicable Policies and Notices to Operators**

Notice Concerning Operating Requirements for Wildlife Protection.  
[http://cogcc.state.co.us/documents/reg/Policies/Wildlife\\_Notice.pdf](http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf)

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.  
<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

## Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u>                |
|--------------------|----------------------------|
| 401415245          | FORM 2 RESUBMITTED         |
| 401716815          | FORM 2 SUBMITTED           |
| 401716816          | FORM 2 REJECTED            |
| 401717375          | DIRECTIONAL DATA           |
| 401717377          | DEVIATED DRILLING PLAN     |
| 401717382          | WELL LOCATION PLAT         |
| 401717386          | SURFACE AGRMT/SURETY       |
| 401717388          | EXCEPTION LOC REQUEST      |
| 401717390          | EXCEPTION LOC WAIVERS      |
| 401718453          | OffsetWellEvaluations Data |
| 401718786          | FORM 2 SUBMITTED           |
| 401917922          | OFFSET WELL EVALUATION     |

Total Attach: 12 Files

## General Comments

| <u>User Group</u> | <u>Comment</u>  | <u>Comment Date</u> |
|-------------------|---|---------------------|
| Permit            | Final Review Completed.   | 01/18/2019          |
| Permit            | Open Hole Logging BMP submitted by operator.<br>With operators concurrence added spacing order and removed green completion BMP.<br>Permitting Review Complete.   | 10/26/2018          |
| Permit            | Passed Completeness.  | 07/31/2018          |
| Permit            | REJECTION COMMENT: This APD is being rejected per the Rejection Process criteria that a pad of Form 2's requiring a total of four or more attachments to be added will be rejected. This pad requires a complete and accurate Offset Well Evaluation for a total of 16 APD's. The Operator and COGCC staff have been consulted. | 07/27/2018          |
| Permit            | Needs corrected Offset Well Evaluation, HZ Wellbore beyond setback comment.   | 07/24/2018          |
| Permit            | Corrected Offset Wells contact email to match what is on attached Excel Spreadsheet.<br><br>Passed completeness.  | 10/16/2017          |

Total: 6 comment(s)