



**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 16 South, Range 53 West, Section 18: All

Total Acres in Described Lease: 630 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: 685 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 962 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 Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 4146 Feet

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

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

**SPACING & FORMATIONS COMMENTS**

This APD is for a vertical pilot well. Nearest wellbore permitted or completed in the same formation is the Long View Farm 33-19-16-53, API 05-073-06509.

**OBJECTIVE FORMATIONS**

| Objective Formation(s)    | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|---------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| MISSISSIPPIAN-PENNSYLVANI | MS-PN          |                         |                               |                                      |

**DRILLING PROGRAM**

Proposed Total Measured Depth: 7500 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 4146 Feet (Including plugged wells)

Will a closed-loop drilling system be used? No

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     609    

**DRILLING WASTE MANAGEMENT PROGRAM**

Drilling Fluids Disposal:     OFFSITE          Drilling Fluids Disposal Methods:     Other      
 Cuttings Disposal:     ONSITE          Cuttings Disposal Method:     Other      
 Other Disposal Description:

Fluids will be injected in disposal offsite. Solids will be treated onsite. Salt or oil-based muds will be used in production hole section of well. Pit liner land fill. See attachments for proposed mud treatment program for both water & oil-based cuttings

Beneficial reuse or land application plan submitted?     No      
 Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

**CASING PROGRAM**

| <u>Casing Type</u> | <u>Size of Hole</u> | <u>Size of Casing</u> | <u>Wt/Ft</u> | <u>Csg/Liner Top</u> | <u>Setting Depth</u> | <u>Sacks Cmt</u> | <u>Cmt Btm</u> | <u>Cmt Top</u> |
|--------------------|---------------------|-----------------------|--------------|----------------------|----------------------|------------------|----------------|----------------|
| CONDUCTOR          | 26                  | 20                    | 94           | 0                    | 40                   |                  |                |                |
| SURF               | 17+1/2              | 13+3/8                | 54.5         | 0                    | 3010                 | 1750             | 3010           | 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

This permit is for the vertical pilot well, to be drilled to a depth of 7500' MD/TVD. The pilot well (open hole) will be cemented and sidetracked. Operator is filing two additional Form 2 APDs for the horizontal sidetracks: Doc 400610486 is APD for the horizontal sidetrack to the Cherokee formation, Doc 400610529 is APD for the horizontal sidetrack to the Atoka formation.

Attached as "other" are 4 documents describing Pioneer's proposed mud treatment program for both water and oil-based cuttings as they apply to the sidetrack wellbores in documents referenced above, to address questions under the Drilling & Waste tab.

A pit will be used for drilling and completion and will be 100'x100', with a 10' depth + freeboard. Form 15 Pit Permit will be submitted.

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: Ann Stephens

Title: Regulatory Manager Date: 5/23/2014 Email: regulatory@petro-fs.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: 6/28/2014

Expiration Date: 06/27/2016

API NUMBER

05 073 06621 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.

COA Type

Description

|  |  |
|--|--|
|  | Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged. |
|  | 1) Provide 48 hour notice prior to spud via electronic Form 42.<br>2) No oil or salt based mud until after setting surface casing.<br>3) As pilot hole for Chrk or Atok lateral completion plug back with 40 sx cement at top of Mississippian and 40 sx cement at top of Morrow.  |

### Best Management Practices

| No | BMP/COA Type                           | Description  |
|----|--|--|
| 1  | Planning                               | <p>Keep well site location, the road, and the pipeline easement free of noxious weeds, litter and debris.</p> <p>Spray for noxious weeds and implement dust control, as needed.</p> <p>Operator will not permit the release or discharge of any toxic or hazardous chemicals or wastes on Owner's Land.</p> <p>Construct and maintain gates where any roads used by operator, its employees, or contactors can cross through fences on the leased premises.</p>  |
| 2  | Pre-Construction                       | <p>Remove only the minimum amount of vegetation necessary for the construction of roads and facilities.</p> <p>Conserve topsoil during excavation and reuse as cover on disturbed areas to facilitate regrowth of vegetation.</p> <p>No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment.</p>   |
| 3  | General Housekeeping                   | <p>Good housekeeping practices will be used to reduce the risk of spills or other accidental exposure of materials and substances to Stormwater runoff. The following housekeeping practices will be followed onsite during the construction project:</p> <ul style="list-style-type: none"> <li>• No solid materials, including building materials, shall be discharged to State waters.</li> <li>• Vehicular traffic will be minimized as much as possible to reduce nuisance dust and prevent further soil erosion.</li> <li>• Any trash generated during the project will be disposed of properly.</li> <li>• Any chemicals used will be kept to a minimum. Any chemical or oil spills will be cleaned up immediately in accordance with established company procedures.</li> <li>• Store all materials in a neat and orderly manner in their appropriate containers.</li> <li>• Follow manufacturers' recommendations and company policies for proper use and disposal of products.</li> <li>• Monitor on-site vehicles for leaks.</li> </ul> |
| 4  | Storm Water/Erosion Control            | <p>Structural Practices for Erosion and Sediment Control:</p> <p>Structural BMPs include, but are not limited to: diversion ditch, earthen berm, silt fence, straw bale, wattle (straw/mulch/bark), rip rap, bonded fiber matrix, erosion control blanket, coconut matting, slash, brush dam, sediment retention ponds, and turnout.</p>   |
| 5  | Storm Water/Erosion Control            | <p>Non-Structural Practices for Erosion and Sediment Control: Nonstructural BMPs include, but are not limited to: preservation of existing vegetation, vegetative buffer zones, slope roughening, and protection of trees.</p>   |
| 6  | Material Handling and Spill Prevention | <p>Materials Handling and Spill Prevention: All drums and totes temporarily stored onsite shall be inspected regularly to ensure integrity. Secondary containment shall be utilized when necessary or required by SPCC regulations. Spill response equipment shall be available in the event of a spill or release. Onsite personnel are instructed to report all spills; Operator shall investigate all spills to ensure proper cleanup/remediation measures and required reporting protocol is implemented. Spill cleanup materials are onsite in the event of a release. All spills are reported according to the state and federal requirements.</p>   |
| 7  | Construction                           | <p>Waste Management and Disposal: A skid-mounted cage/dumpster is placed at a well pad during construction and is utilized while crews are onsite during drilling and completion activities. Upon completion of these activities the dumpster is removed from the site.</p>  |
| 8  | Drilling/Completion Operations         | <p>The drilling pit will be lined.</p>   |

|    |                     |   |
|----|---------------------|---|
| 9  | Interim Reclamation | Utilize only such area around each producing well as is reasonably necessary. Restore the remainder of the well site location to its original condition within a reasonable time after the completion of operations. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.   |
| 10 | Final Reclamation   | All surface restoration shall be accomplished to the satisfaction of Owner. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner. Final reclamation shall be completed to the reasonable satisfaction of the Owner as soon as practical after installation (weather permitting) and in accordance with regulatory agency standards (BLM/COGCC) |

Total: 10 comment(s)

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

Notice Concerning Operating Requirements for Wildlife Protection.

### **Attachment Check List**

| <b><u>Att Doc Num</u></b> | <b><u>Name</u></b> |
|---------------------------|--------------------|
| 400596320                 | FORM 2 SUBMITTED   |
| 400610466                 | WELL LOCATION PLAT |
| 400614275                 | OTHER              |
| 400614276                 | OTHER              |
| 400614278                 | OTHER              |
| 400614279                 | OTHER              |
| 400614391                 | WELLBORE DIAGRAM   |

Total Attach: 7 Files

### **General Comments**

| <b><u>User Group</u></b> | <b><u>Comment</u></b>  | <b><u>Comment Date</u></b> |
|--------------------------|--|----------------------------|
| Permit                   | This permit is the pilot of a pilot/lateral drilling plan. Approval of this permit must precede the approval of the lateral in order that API sidetrack designations be correct. | 6/27/2014<br>1:02:12 PM    |
| Permit                   | Final review completed; no public comment received.  | 6/27/2014<br>1:01:03 PM    |
| LGD                      | County Permit #1455  | 5/30/2014<br>7:48:27 AM    |
| Permit                   | Operator left type of well and zone type blank, however they selected an objective formation for the pilot. COGCC revised to planned oil well and single zone.                   | 5/27/2014<br>12:46:43 PM   |
| Permit                   | Passed completeness  | 5/27/2014<br>11:31:43 AM   |

Total: 5 comment(s)