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|---|--|---|--|
| <div>FORM 2</div> <div>Rev 08/13</div>  | <div>State of Colorado</div> <div>Oil and Gas Conservation Commission</div> <div>1120 Lincoln Street, Suite 801, Denver, Colorado 80203</div> <div>Phone: (303) 894-2100 Fax: (303) 894-2109</div> | <div></div> | <div>Document Number:</div> <div>400622584</div> |
| <div>APPLICATION FOR PERMIT TO:</div> <div><div><input checked="" type="checkbox"/> Drill</div><div><input type="checkbox"/> Deepen</div><div><input type="checkbox"/> Re-enter</div><div><input type="checkbox"/> Recomplete and Operate</div></div>   |  |   | <div>Date Received:</div> <div>06/09/2014</div>  |
| <div>TYPE OF WELL   OIL <input type="checkbox"/>   GAS <input type="checkbox"/>   COALBED <input type="checkbox"/>   OTHER <u>Monitor</u></div> <div>ZONE TYPE   SINGLE ZONE <input type="checkbox"/>   MULTIPLE ZONES <input type="checkbox"/>   COMMINGLE ZONES <input type="checkbox"/></div>  |  | <div>Refiling <input type="checkbox"/></div> <div>Sidetrack <input type="checkbox"/></div>    |  |
| <div>Well Name: <u>Horsetail</u></div> <div>Name of Operator: <u>WHITING OIL AND GAS CORPORATION</u></div> <div>Address: <u>1700 BROADWAY STE 2300</u></div> <div>City: <u>DENVER</u>   State: <u>CO</u>   Zip: <u>80290</u></div> <div>Contact Name: <u>Larry Brown</u>   Phone: <u>(307)237-9310</u>   Fax: <u>(   )</u></div> <div>Email: <u>ld_brown@bresnan.net</u></div>  |  | <div>Well Number: <u>19N-1924M</u></div> <div>COGCC Operator Number: <u>96155</u></div>       |  |
| <div>RECLAMATION FINANCIAL ASSURANCE</div> <div>Plugging and Abandonment Bond Surety ID: <u>20030110</u></div>  |  |   |  |
| <div>WELL LOCATION INFORMATION</div> <div>QtrQtr: <u>SWSE</u>   Sec: <u>19</u>   Twp: <u>10N</u>   Rng: <u>57W</u>   Meridian: <u>6</u></div> <div>Latitude: <u>40.818861</u>   Longitude: <u>-103.794250</u></div> <div>Footage at Surface: <u>660</u> feet   FNL/FSL <u>FSL</u> <u>2656</u> feet   FEL/FWL <u>FEL</u></div> <div>Field Name: <u>WILDCAT</u>   Field Number: <u>99999</u></div> <div>Ground Elevation: <u>4748</u>   County: <u>WELD</u></div> <div>GPS Data:</div> <div>Date of Measurement: <u>11/27/2013</u>   PDOP Reading: <u>1.4</u>   Instrument Operator's Name: <u>Dallas Nielsen</u></div> <div>If well is   <input type="checkbox"/> Directional   <input type="checkbox"/> Horizontal (highly deviated)   <b>submit deviated drilling plan.</b></div> <div>Footage at Top of Prod Zone:   FNL/FSL   FEL/FWL   Bottom Hole:   FNL/FSL   FEL/FWL</div> <div>Sec:   Twp:   Rng:   Sec:   Twp:   Rng:</div>  |  |   |  |
| <div>LOCATION SURFACE &amp; MINERALS &amp; RIGHT TO CONSTRUCT</div> <div>Surface Ownership:   <input checked="" type="checkbox"/> Fee   <input type="checkbox"/> State   <input type="checkbox"/> Federal   <input type="checkbox"/> Indian</div> <div>The Surface Owner is:   <input type="checkbox"/> is the mineral owner beneath the location.</div> <div>(check all that apply)   <input type="checkbox"/> is committed to an Oil and Gas Lease.</div> <div>   <input type="checkbox"/> has signed the Oil and Gas Lease.</div> <div>   <input type="checkbox"/> is the applicant.</div> <div>The Mineral Owner beneath this Oil and Gas Location is:   <input checked="" type="checkbox"/> Fee   <input type="checkbox"/> State   <input type="checkbox"/> Federal   <input type="checkbox"/> Indian</div> <div>The Minerals beneath this Oil and Gas Location will be developed by this Well:   <u>No</u></div> <div>The right to construct the Oil and Gas Location is granted by:   <u>Surface Use Agreement</u></div> <div>Surface damage assurance if no agreement is in place:   Surface Surety ID:</div> |  |   |  |

## 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.)

This well is a monitor well only and will not be produced.

Total Acres in Described Lease: \_\_\_\_\_ 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: \_\_\_\_\_ Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2900 Feet  
Building Unit: 2900 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 5279 Feet  
Above Ground Utility: 5250 Feet  
Railroad: 5280 Feet  
Property Line: 660 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: 17 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

## 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           |                         |                               |                                      |

## DRILLING PROGRAM

Proposed Total Measured Depth: 9300 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 17 Feet (Including plugged wells)

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 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: ONSITE Cuttings Disposal Method: Other

Other Disposal Description:

Bioremediation

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   | 28           | 16             | 65    | 0             | 80            | 179       | 80      | 0       |
| SURF        | 13+1/2       | 9+5/8          | 36    | 0             | 1500          | 693       | 1500    | 0       |
| 1ST         | 8+3/4        | 7              | 29    | 0             | 9300          | 1054      | 9300    | 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 is a monitor well. No facilities will be placed on location.

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: Larry Brown

Title: Agent Date: 6/9/2014 Email: ld\_brown@bresnan.net

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: 7/14/2014

Expiration Date: 07/13/2016

**API NUMBER**

05 123 39885 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**

- | COA Type | Description  |
|----------|--|
|          | 1) Provide 48 hour notice prior to spud via electronic Form 42.<br>2) Provide cement coverage to a minimum of 200' above Niobrara. Verify coverage with cement bond log. |

## Best Management Practices

| <u>No</u> | <u>BMP/COA Type</u>                    | <u>Description</u>   |
|-----------|--|--|
| 1         | Storm Water/Erosion Control            | Stormwater management plans (SWMP) are in place to address construction, drilling and operations associated with oil and gas development throughout the State of Colorado. BMPs will be constructed as necessary to prevent stormwater from leaving the construction site. BMPs used will vary according to the location, and will remain until the pad is reclaimed.  |
| 2         | Material Handling and Spill Prevention | Spill Prevention Control and Countermeasures (SPCC) plans are in place to address any possible spill associated with oil and gas operations throughout the State of Colorado. <ul style="list-style-type: none"><li>• Materials and fluids will be stored in a neat and orderly fashion.</li><li>• Waste will be collected regularly and disposed of at an offsite facility.</li><li>• Prompt cleanup is required of spills to minimize waste materials entering the stormwater runoff.</li><li>• Drip pans will be used during fueling and maintenance to contain spills or leaks.</li><li>• Cleanup of trash and discarded material will be done at the end of the work day.</li><li>• Cleanup will consist of monitoring the road, location and any other work areas.</li><li>• Material to be cleaned up includes trash, scrap, and contaminated soil.</li></ul> |
| 3         | Drilling/Completion Operations         | Open hole resistivity log with gamma ray will be run on this well to describe the stratigraphy of the vertical section of the wellbore and to adequately verify the setting depth of the surface casing and aquifer coverage.  |

Total: 3 comment(s)

## Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

## Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u>          |
|--------------------|----------------------|
| 400622584          | FORM 2 SUBMITTED     |
| 400622667          | DRILLING PLAN        |
| 400622668          | SURFACE AGRMT/SURETY |
| 400622669          | WELL LOCATION PLAT   |

Total Attach: 4 Files

## General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u>      |
|-------------------|--|--------------------------|
| Permit            | Oper. corrected obj. fm. to NBRR. That is the formation that will be seismic-monitored. No perforations planned.<br>Oper. corrected dist. to building unit.<br>No LGD or public comments.<br>Final Review--passed. | 7/11/2014<br>9:37:25 AM  |
| Permit            | Added open hole logging BMP per oper.<br>Need clarification of objective formation & distance to nearest well.<br>Deleted lease info; well will not be produced.   | 7/1/2014 9:30:21<br>PM   |
| Engineer          | Re: DJ Hor. Off. Pol. This well is type- other: monitor.   | 6/23/2014<br>11:50:58 AM |
| Permit            | Passed completeness. Related forms number entered.   | 6/12/2014<br>1:30:11 PM  |
| Permit            | Return to draft. Selected as yes, it will be submitted with an oil and gas location application, but missing related forms number.   | 6/12/2014<br>8:36:40 AM  |

Total: 5 comment(s)