

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

TYPE OF WELL    OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____	Refiling <input type="checkbox"/>
ZONE TYPE    SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input checked="" type="checkbox"/>

Date Received: 12/05/2016

Well Name: Horsetail      Well Number: 30G-3143

Name of Operator: WHITING OIL & GAS CORPORATION      COGCC Operator Number: 96155

Address: 1700 BROADWAY STE 2300

City: DENVER      State: CO      Zip: 80290

Contact Name: Michael Brown      Phone: (307)237-9310      Fax: ( )

Email: ml\_brown@bresnan.net

**RECLAMATION FINANCIAL ASSURANCE**  
Plugging and Abandonment Bond Surety ID: 20030110

**WELL LOCATION INFORMATION**

QtrQtr: SWNE      Sec: 30      Twp: 10N      Rng: 57W      Meridian: 6

Latitude: 40.810528      Longitude: -103.791692

Footage at Surface: <u>2375</u> Feet	FNL/FSL	FEL/FWL
<u>FNL</u> <u>1980</u> Feet	<u>FEL</u>	

Field Name: WILDCAT      Field Number: 99999

Ground Elevation: 4743      County: WELD

GPS Data:  
Date of Measurement: 04/24/2015    PDOP Reading: 1.7    Instrument Operator's Name: Jared Christopher

If well is  Directional     Horizontal (highly deviated)    **submit deviated drilling plan.**

Footage at Top of Prod Zone: <u>FNL/FSL</u> <u>FEL/FWL</u> Bottom Hole: <u>FNL/FSL</u> <u>FEL/FWL</u>
<u>2562</u> <u>FSL</u> <u>1724</u> <u>FEL</u> <u>100</u> <u>FSL</u> <u>2018</u> <u>FEL</u>
Sec: <u>30</u> Twp: <u>10N</u> Rng: <u>57W</u> Sec: <u>31</u> Twp: <u>10N</u> Rng: <u>57W</u>

**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: No

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.)

T10N R57W, 6TH P.M.  
SECTION 5: SW/4NW/4, W/2SW/4  
SECTION 6: LOTS 4(36.53),5(35.80),6(35.86),7(35.93),S/2NE/4,SE/4NW/4,  
E/2SW/4,SE/4  
SECTION 31: L1 (37.16), L2 (37.21), E2NW, NE (A/K/A N2)

Total Acres in Described Lease: 938 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: 4625 Feet  
Building Unit: 4625 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 5280 Feet  
Above Ground Utility: 560 Feet  
Railroad: 5280 Feet  
Property Line: 284 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: 267 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 100 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.)
CODELL	CODL	535-508	960	S/2 S30, All S31

## DRILLING PROGRAM

Proposed Total Measured Depth: 13974 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: \_\_\_\_\_ 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 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:

Remediation

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	24	20	92	0	80	179	80	0
SURF	13+1/2	9+5/8	36	0	2057	870	2057	0
1ST	8+1/2	5+1/2	17	0	13974	2028	13974	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

Sidetrack verbal approval granted via E-Mail by Diana Burn Monday, December 5, 2016, 9:28 AM.  
While drilling in the curve the motor's power section backed off and was left in the hole while drilling at 39°. The intent is to sidetrack off a cement plug around the fish at 4,800' and finish drilling the well to its original BHL. I have attached the schematic for the sidetrack request below.

- TOTAL DEPTH REACHED:
- 5,776' (MD) 5,589' (TVD)
  
- CASING:
- SURFACE CASING:
- SIZE: 9.625" 36PPF J-55 LTC
- DEPTH: 2,057'
  
- DESCRIPTION OF FISH IN THE HOLE:
- 12' OF THE MOTOR'S POWER SECTION
  
- PLUG BACK DEPTHS:
- PLUG\_1:
- FROM 5776' TO 4776'
- 470 SXS
- 17.2 PPG (0.96 CUFT/SX)
- SET USING DRILL PIPE @ 5776'
- HOLE SIZE = 8.5"
  
- SIDETRACK KICK OFF POINT:
- 4800' (MD)
- BHL TARGET FOR SIDETRACK HOLE:
- (SAME TARGET) 100' FSL AND 2018' FEL S31-T10N-R57W

TPZ footage (1724 FEL) is revised 20' from original TPZ. New TPZ is documented on attached Deviated Drilling Plan. A new Well Location Plat will be submitted if needed.

This application is in a Comprehensive Drilling Plan No CDP #: \_\_\_\_\_

Location ID: 445362

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: \_\_\_\_\_ Print Name: Michael Brown

Title: Agent Date: 12/5/2016 Email: ml\_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: Matthew Lee Director of COGCC Date: 12/9/2016

Expiration Date: 12/08/2018

<b>API NUMBER</b>
05 123 43039 01

### 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>
	Bradenhead tests shall be performed and reported according to the following schedule and Form 17 submitted within 10 days of each test.: 1) Within 30 days of rig release prior to stimulation. 2) Between 6 and 7 months after rig release. 3) Within 30 days of first production as reported on Form 5A.
	Operator acknowledges the proximity of the following offset well(s) of concern and proposes stated mitigation: 05-123-20077, MADDY 1-31, Option #3 Operator agrees to: comply with 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 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.
	1) 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>

Total: 2 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>

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401160325	FORM 2 SUBMITTED
401160550	WELLBORE DIAGRAM
401160551	CORRESPONDENCE
401160702	DIRECTIONAL DATA
401160704	DEVIATED DRILLING PLAN

Total Attach: 5 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Complete.	12/08/2016
Permit	Permitting review complete.	12/05/2016
Permit	Passes completeness.	12/05/2016
Permit	With Operator's verbal consent via phone call; - Operator acknowledges TPZ footage (1724 FEL) does not match original well location plat (1744 FEL). Operator prefers to use this revised TPZ footage (1724 FEL) and has it documented on attached/revise Deviated Drilling Plan. COGCC permitting confirms this new TPZ location is within legal setback requirements. A revised Well Location Plat is not required at this time since SHL and BHL will not change. - Deleted distance to nearest nonop well and checked box for no well belonging to another operator within 1500 feet. - Changed open hole logging BMP definition from "TD" to "KOP" reference for base of open hole resistivity log. - Operator acknowledges Offset Well Evaluation and Wellbore Integrity Email are missing on this form; no changes have been made to this data as approved on the original APD. Operator will submit this information if needed.	12/05/2016
Permit	This is an unplanned sidetrack for API 123-43039-00. Added extension -01 to API# to create sidetrack API. LGD and public comment periods waived by COGCC staff as comment periods do not apply to this application for an unplanned sidetrack when drilling is in progress.	12/05/2016

Total: 5 comment(s)