

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:
401247291

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

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

Refiling
Sidetrack

Date Received:
06/09/2017

Well Name: Cottonwood Fed Well Number: 07M-1902
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: Lot 4 Sec: 7 Twp: 9N Rng: 57W Meridian: 6
Latitude: 40.759846 Longitude: -103.799706

Footage at Surface: 355 Feet FNL/FSL FSL 847 Feet FEL/FWL FWL

Field Name: WILDCAT Field Number: 99999
Ground Elevation: 4628 County: WELD

GPS Data:
Date of Measurement: 06/23/2015 PDOP Reading: 1.3 Instrument Operator's Name: Cameron Stewart

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

Footage at Top of Prod Zone: FNL/FSL FSL 110 FNL 692 FWL 100 FSL 495 FWL
Sec: 18 Twp: 9N Rng: 57W Sec: 19 Twp: 9N Rng: 57W

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: 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.)

E2NW, NESW, L1, L2, L3, L4, Sec 7: T9N R57W 6th PM
E2W2, S2SE L1, L2, L3, L4, Sec 18: T9N R57W 6th PM
NENW, NWNE, L1, L2, L3, S2SE, SWNE, SENW, NESW, NWSE, Sec 19: Gr T9N R57W 6th PM

Total Acres in Described Lease: 1104 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: 3573 Feet

Building Unit: 3573 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 3990 Feet

Above Ground Utility: 3573 Feet

Railroad: 5280 Feet

Property Line: 355 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: 202 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.)
NIOBRARA	NBRR	535-721	1280	All 18 All 19

DRILLING PROGRAM

Proposed Total Measured Depth: 16184 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: 107 Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H₂S 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	1500	645	1500	0
1ST	8+1/2	5+1/2	17	0	16184	2777	16184	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 Stim Setback Consent is not needed because the Rauth 1 (05-123-05636) Kingwood Oil is DA.
The well bore will not be completed any closer than 300' to the unit boundary where the adjacent unit does not allow for 100' from the unit boundary (south line of Sec 19).

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: 445799

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: Michael Brown

Title: Agent Date: 6/9/2017 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: 10/9/2017

Expiration Date: 10/08/2019

API NUMBER
05 123 45610 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>
	Whiting acknowledges that the proper mitigation will be provided to the following wells per the DJ Basin Horizontal Offset Policy: 05-123-05636, RAUTH 1 : Option 3 05-123-11457, KOG NICOLA 1: 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.
	Bradenhead tests shall be performed and reported according to the following schedule and Form 17 submitted within 10 days of each test.: 1) All: Within 60 days of rig release, prior to stimulation. 2) Delayed completion: 6 months after rig release, prior to stimulation. 3) All: Within 30 days of first production, as reported on Form 5A.
	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. 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	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with open-hole 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 open-hole logs were run.

Total: 1 comment(s)

Applicable Policies and Notices to Operators

Policy
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2473145	CORRESPONDENCE
401247291	FORM 2 SUBMITTED
401247626	DIRECTIONAL DATA
401247628	DEVIATED DRILLING PLAN
401247630	DRILLING PLAN

401287117	OffsetWellEvaluations Data
401304803	WELL LOCATION PLAT
401424057	OFFSET WELL EVALUATION

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	Increased surface casing to 1500', the minimum surface casing for DJ Basin horizontal well design without intermediate casing.	10/05/2017
Permit	Changed "minerals beneath this location will be developed" from No to Yes to reflect revised lease description. Form IN PROCESS.	10/03/2017
Permit	Operator provided revised lease description that includes minerals in Section 7, and updated total acreage from 829 to 1104 acres. Right to construct remains Lease. Correspondence attached.	10/02/2017
Final Review	Push to ON HOLD for review of Right to Construct & Lease info.	10/02/2017
Permit	Final review complete. No LGD or public comment received.	09/26/2017
Permit	IN PROCESS - per Operator, added the comment "The well bore will not be completed any closer than 300' to the unit boundary where the adjacent unit does not allow for 100' from the unit boundary." Operator will not complete the wellbore within 300' of the southern unit boundary. Permitting review complete.	09/14/2017
Permit	ON HOLD - Spacing Order 535-721 establishes a 300' unit setback for unspaced adjacent sections; Section 30 to the south of the wellbore is currently unspaced, so productive interval of the well must be changed from 100' to 300' minimum. Contacted Operator for guidance.	08/21/2017
Permit	Corrections made with Operator concurrence: - Added "Lot" to SHL Qtr/Qtr description. - Changed Field from DJ Horizontal Niobrara to Wildcat. - Updated Spacing Order from 535-637 to 535-721.	08/21/2017
Engineer	Evaluated existing wells within 1500' of proposed directional.	07/18/2017
Permit	-Changed footage at surface per operator. Passed Completeness.	06/19/2017

Total: 10 comment(s)