

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received:
10/04/2019

TYPE OF WELL OIL GAS COALBED OTHER: _____

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Well Name: RUSH 4-65 29-30 Well Number: 4CH

Name of Operator: BURLINGTON RESOURCES OIL & GAS LP COGCC Operator Number: 26580

Address: 925 N ELDRIDGE PARKWAY

City: HOUSTON State: TX Zip: 77079

Contact Name: LARRY SMITH Phone: (832)4862590 Fax: (918)6628057

Email: LARRY.R.SMITH@CONOCOPHILLIPS.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 19920030

WELL LOCATION INFORMATION

QtrQtr: SWSW Sec: 28 Twp: 4S Rng: 65W Meridian: 6

Latitude: 39.670860 Longitude: -104.677120

Footage at Surface: 1256 Feet FNL/FSL FSL 422 Feet FEL/FWL FWL

Field Name: WILDCAT Field Number: 99999

Ground Elevation: 5708 County: ARAPAHOE

GPS Data:
Date of Measurement: 04/20/2018 PDOP Reading: 1.2 Instrument Operator's Name: CHAD MEIERS

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

700 FSL 460 FEL 700 FSL 325 FWL

Sec: 29 Twp: 4S Rng: 65W Sec: 30 Twp: 4S Rng: 65W

LOCAL GOVERNMENT INFORMATION

County: ARAPAHOE Municipality: _____

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: Municipality

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" below. Yes No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The local government siting permit type is: Oil and Gas Well Permit

The local government siting permit was filed on: 10/11/2018

The disposition of the application filed with the local government is: In Process

Additional explanation of local process:

Approval pending implementation of BMPs described in the Aurora Operator's Agreement executed 6/5/19. The local permit for this well was resubmitted to City of Aurora after the execution of the operator agreement.

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.)

Section 29 (all), T4S, R65W

Total Acres in Described Lease: 640 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:	<u>2769</u> Feet
Building Unit:	<u>2939</u> Feet
High Occupancy Building Unit:	<u>3845</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>3679</u> Feet
Above Ground Utility:	<u>3027</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>278</u> Feet
School Facility:	<u>3846</u> Feet
School Property Line:	<u>1243</u> Feet
Child Care Center:	<u>5280</u> 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, Designated Outside Activity Area, School Facility, and Child Care Center – 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: 200 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

6 section DSU described below contains T4S-R65W-S.17,18,19,20,29,30 and has been approved.

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: _____

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	535-1167	3840	S. 17,18,19,20,29,30

DRILLING PROGRAM

Proposed Total Measured Depth: 18113 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 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? 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 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Commercial Disposal facility for freshwater used to drill surface section. Oil Based Mud used for remainder of lateral drilled will be reused from pad to pad.

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	16	65	0	100		100	0
SURF	13+1/2	9+5/8	36	0	2216	710	2216	0
1ST	8+1/2	5+1/2	23	0	18113	2460	18113	

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 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 700' FSL and 460' FWL of Section 30. The wellbore beyond the unit boundary setback will be physically isolated and will not be completed.

This well will be an addition to an existing location, location ID 449806.

Lease Map attached to outline extent of approved 6-section DSU.

The nearest well in the formation is the Rush 4-65 29-30 4BH (Doc # 402146514). The distance of 200' was measured in 2D.

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

Location ID: 449806

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 SMITH

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: _____ Director of COGCC Date: _____
 Expiration Date: _____

API NUMBER 05

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>
Drilling/Completion Operations	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) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.
Drilling/Completion Operations	Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.

Best Management Practices

<u>No BMP/COA Type</u>	<u>Description</u>
1 Drilling/Completion Operations	Planned surface casing setting depth at a minimum of 200' below the base of the Fox Hills formation.
2 Drilling/Completion Operations	Open-hole Resistivity Log with Gamma Ray Log will be run from the kick-off point into the surface casing on one of the first wells drilled. A Cement Bond Log with Gamma-Ray will be run on production casing, or on intermediate casing if a production liner is run. The horizontal portion of the wellbore will be logged with a measured-while-drilling gamma-ray log. The Form 5, Completion Report, will list all logs run and have those logs attached.
3 Drilling/Completion Operations	If a skid is performed for the subject well, then the only required BOPE tests will be for any broken BOPE connections, as long as a full BOPE test was performed at the beginning of the pad, and as long as all necessary BOPE tests are completed at least every 21 days during the pad operations.

Total: 3 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

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>
1638321	SUA
402146701	FORM 2 SUBMITTED
402147084	DIRECTIONAL DATA
402147091	DEVIATED DRILLING PLAN
402148531	LEASE MAP
402197611	OffsetWellEvaluations Data
402197614	WELL LOCATION PLAT

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit (Rejected)	REJECTION: This APD has been rejected per the COGCC Rejection Process (updated May 21, 2019). The cross section & well plan view diagram for the directional survey is missing and the latitude and longitude for the surface location are incorrect on this APD and on 6 other APDs on the pad. This entire form was reviewed by permitting staff.	11/07/2019
Engineer	Offset Wells Evaluated.	10/30/2019
Permit	Uploaded the redact version of the SUA from the operator	10/17/2019
Permit	Passed completeness.	10/10/2019
Permit	Attachment mislabeled as "wellbore diagram." Ground elevation should be a whole number. Return to draft.	10/07/2019

Total: 5 comment(s)

Public Comments

The following comments were provided by members of the public and were considered during the technical review of this application.

<u>No.</u>	<u>Comment</u>	<u>Comment Date</u>
1	https://climateinvestigations.org/shell-oil-climate-documents/	10/26/2019

Total: 1 comment(s)

