

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:
402199614

APPLICATION FOR PERMIT TO:

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

Date Received:
05/04/2020

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

Refiling ☐
Sidetrack ☐

Well Name: STATE ANTELOPE Well Number: O24-K21-31HNC
Name of Operator: BONANZA CREEK ENERGY OPERATING COMPANY LLC COGCC Operator Number: 8960
Address: 410 17TH STREET SUITE #1400
City: DENVER State: CO Zip: 80202
Contact Name: Kate Miller Phone: (720)440-6116 Fax: ()
Email: regulatory@bonanzacrk.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120018

WELL LOCATION INFORMATION

QtrQtr: SWSE Sec: 31 Twp: 5N Rng: 62W Meridian: 6
Latitude: 40.350544 Longitude: -104.366040
Footage at Surface: 541 Feet FNL/FSL FSL 2492 Feet FEL/FWL FEL
Field Name: WATTENBERG Field Number: 90750
Ground Elevation: 4552 County: WELD
GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 07/16/2018
Instrument Operator's Name: Ryan Williams
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
10 FSL 2310 FWL 30 FSL 2257 FWL
Sec: 31 Twp: 5N Rng: 62W Sec: 30 Twp: 5N Rng: 62W

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: N/A

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: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition 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: WOGLA

The local government siting permit was filed on: 07/17/2019

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

WOGLA19-0164 was approved on 10/29/19

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: 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.)

5N-62W-Section 31: Lots 1, 2, 3, 4, E/2W/2, E/2, and other lands (Acreage: 8115)

Total Acres in Described Lease: 8115 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: 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: 541 Feet

School Facility: 5280 Feet

School Property Line: 5280 Feet

Child Care Center: 5280 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: 159 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 507 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

Proposed Spacing Unit:
Township 4N, Range 62W (Weld County):
Section 6: W2 Lot 1
Township 5N, Range 62W
Section 31: E2W2, W2E2
Section 30: SESW, SWSE

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		445	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 12021 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 318A

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:

Beneficial reuse or land application plan submitted? No

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
SURF	13+1/2	9+5/8	36	0	1600	743	1600	0
1ST	8+1/2	5+1/2	17	0	12021	1893	12021	

☒ 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

SUA Attachment includes Surface Use Agreement Memorandum of Amendment from 2015 & latest from 2018 combined.

COGIS is showing the Oil and Gas location to be the SESW, however our surveys show the location to be in the SWSE.

The Windows/Twinning exception location waiver is included as an attachment.

The Antelope N-31 (API:05-123-35295), operated by Bonanza Creek, is the nearest well in the same formation, the distance was measured in 3D. The well is currently PR.

No wells owned by other operators are Producing, Temporarily Abandoned, or Shut-In within 150' of this wells productive lateral, therefore stimulation setback consent is not needed.

Per correspondence with COGCC staff because the original APD submittal was withdrawn and did not expire, a new PSU letter to working interest owners is not required. The wellbore has not changed from the original submittal, therefore the PSU is still applicable.

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

Location ID: 471040

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: Aubrey Noonan

Title: Regulatory Analyst Date: 5/4/2020 Email: regulatory@bonanzacrk.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, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 8/3/2020

Expiration Date: 08/02/2022

API NUMBER

05 123 51159 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>
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.
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.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed well path with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottom hole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment.
2	Drilling/Completion Operations	Operator will comply with the "COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area", dated May 29, 2012.
3	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with an open-hole resistivity log and gamma-ray, from the kick-off point into the surface casing. All wells on the pad will have a cement bond log (CBL) 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 "Alternative Logging Program - No open-hole logs were run" and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run.

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

Att Doc Num	Name
402199614	FORM 2 RESUBMITTED
402345060	FORM 2 REJECTED
402357353	DEVIATED DRILLING PLAN
402357354	WELL LOCATION PLAT
402357356	SURFACE AGRMT/SURETY
402357362	CORRESPONDENCE
402357364	EXCEPTION LOC WAIVERS
402357380	DIRECTIONAL DATA
402384011	PROPOSED SPACING UNIT
402384075	EXCEPTION LOC REQUEST
402385304	OffsetWellEvaluations Data
402458644	OFFSET WELL EVALUATION

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	07/23/2020
Permit	COGCC conducted the technical review for the related Oil and Gas Location Assessment permit, Form 2A document #401899602 under the statutory authority provided through SB 19-181, including the Objective Criteria. The Director approved the Form 2A on 1/29/2020, establishing Location ID #471040 subject to conditions included in the permit. The well proposed by this related Form 2 was contemplated during COGCC's review of the Form 2A. The Objective Criteria Review Memo (Doc# 1010828) can be found in the document file for this Location.	07/09/2020
Permit	The SLB has no concerns with this application. Passed Permitting.	06/10/2020
Permit	Passed completeness.	06/10/2020
Permit (Rejected)	<p>This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is rejecting this application consistent with the Rejection Process –Form 2 and 2A (May 21, 2019) posted in the Form 2 and Form 2A Instructions section of our website. Incompliance with § 24-65.1-108(1), C.R.S., the COGCC is returning this application to the applicant to remedy the deficiencies. The applicant may resubmit this application for COGCC review; upon determination of completeness for any resubmitted application, the COGCC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review.</p> <p>In addition to all standard required information and attachments, the COGCC hereby confirms the following information is necessary prior to determination of completeness:</p> <ol style="list-style-type: none"> 1.Offset well evaluation is missing numerous offset wells within 1500' of the proposed wellbores. 2.Numerous wells identified and submitted in the offset well evaluation have been incorrectly identified (API does not match well name). 3.Well location plat has incorrect GR Elevation for one well. 4.Incorrect WOGLA cited in "Additional explanation of local process:" box (Well Location tab) for 3 wells. 5.WOGLA filing date is incorrect for one well. 6.Footage At Bottom Hole is incorrect for one well. 7.Incorrect range stated for lands described on Proposed Spacing Unit and "Spacing and Formations" tab for one well. 8.Incorrect API referenced for "Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation" for one well. 	03/17/2020
Engineer	Offset wells evaluated.	02/20/2020
Permit	Passed completeness.	02/10/2020
Permit	Location ID missing. Ground elevation not a whole number. Return to draft.	01/31/2020

Total: 8 comment(s)