

FORM

2

Rev
12/20

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:

403009443

Date Received:

04/28/2022

APPLICATION FOR PERMIT TO:

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate
Amend ☐Refill ☐Sidetrack ☐TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Well Name: State Antelope

Well Number: 43-13-3HN

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: Jeff Annable

Phone: (303)312-8529

Fax: ()

Email: jannable@civiresources.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120018

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWNW Sec: 2 Twp: 5N Rng: 62W Meridian: 6

Footage at Surface: 1808 Feet FNL/FSL FNL 333 Feet FEL/FWL FWL

Latitude: 40.431800

Longitude: -104.298840

GPS Data:

GPS Quality Value: 1.6

Type of GPS Quality Value: PDOP

Date of Measurement: 05/24/2021

Ground Elevation: 4646

Field Name: WATTENBERG

Field Number: 90750

Well Plan: is ☐ Directional ☒ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 3 Twp: 5N Rng: 62W

Footage at TPZ: 2021 FSL 200 FEL

Measured Depth of TPZ: 6644

True Vertical Depth of TPZ: 6109

FNL/FSL

FEL/FWL

Base of Productive Zone (BPZ)

Sec: 3 Twp: 5N Rng: 62W

Footage at BPZ: 2011 FSL 470 FWL

Measured Depth of BPZ: 11244

True Vertical Depth of BPZ: 6109

FNL/FSL

FEL/FWL

Bottom Hole Location (BHL)

Sec: 3 Twp: 5N Rng: 62W

Footage at BHL: 2011 FSL 470 FWL

FNL/FSL

FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? Yes

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☒ 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 disposition of the application filed with the Relevant Local Government is: Approved Date of Final Disposition: 10/11/2021

Comments: Approved permit #1041WOGLA21-0010

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: ☐ Fee ☒ State ☐ Federal ☐ Indian

Mineral Owner beneath this Well's Oil and Gas Location: ☐ Fee ☒ State ☐ Federal ☐ Indian

Surface Owner Protection Financial Assurance (if applicable): _____ Surety ID Number (if applicable): _____

MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

☒ Fee

☒ State

☐ Federal

☐ Indian

☐ N/A

LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

* If this Well is within a unit, describe a lease that will be developed by the Well.

* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

T5N R62W
SEC 2-ALL

Total Acres in Described Lease: 640 Described Mineral Lease is: ☐ Fee ☒ State ☐ Federal ☐ Indian

Federal or State Lease # OG-108513

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
Public Road: 5280 Feet
Above Ground Utility: 1702 Feet
Railroad: 5280 Feet

INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

Property Line: 333 Feet

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 | 407-3311 | 805 | T5NR62W SEC 2: W2W2, SEC 3-ALL |

Federal or State Unit Name (if appl):

Unit Number:

SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 470 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 667 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: Feet

Exception Location

☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers.

SPACING & FORMATIONS COMMENTS

DRILLING PROGRAM

Proposed Total Measured Depth: 11244 Feet

TVD at Proposed Total Measured Depth 6109 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: 541 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 Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

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

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

CASING PROGRAM

| <u>Casing Type</u> | <u>Size of Hole</u> | <u>Size of Casing</u> | <u>Grade</u> | <u>Wt/Ft</u> | <u>Csg/Liner Top</u> | <u>Setting Depth</u> | <u>Sacks Cmt</u> | <u>Cmt Btm</u> | <u>Cmt Top</u> |
|--------------------|---------------------|-----------------------|--------------|--------------|----------------------|----------------------|------------------|----------------|----------------|
| CONDUCTOR | 24 | 16 | N/A | 42 | 0 | 80 | 100 | 80 | 0 |
| SURF | 12+1/4 | 9+5/8 | J-55 | 36 | 0 | 1500 | 400 | 1500 | 0 |
| 1ST | 8+1/2 | 5+1/2 | P-110 | 20 | 0 | 11244 | 1420 | 11244 | |

☐ Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

| <u>Zone Type</u> | <u>Formation /Hazard</u> | <u>Top M.D.</u> | <u>Top T.V.D.</u> | <u>Bottom M.D.</u> | <u>Bottom T.V.D.</u> | <u>TDS (mg/L)</u> | <u>Data Source</u> | <u>Comment</u> |
|-------------------|--------------------------|-----------------|-------------------|--------------------|----------------------|-------------------|--------------------------|-------------------------------------|
| Groundwater | Laramie-Fox Hills | 24 | 24 | 249 | 249 | 0-500 | Electric Log Calculation | Grace State 2-1 (05-123-10130-0000) |
| Confining Layer | Pierre Formation | 249 | 249 | 460 | 459 | | | |
| Groundwater | Upper Pierre | 460 | 459 | 1449 | 1419 | 501-1000 | Electric Log Calculation | Grace State 2-1 (05-123-10130-0000) |
| Confining Layer | Base of Upper Pierre | 1449 | 1419 | 3369 | 3269 | | | |
| Hydrocarbon | Parkman Sandstone | 3369 | 3269 | 3753 | 3639 | | | Not productive in this area. |
| Confining Layer | Pierre Formation | 3753 | 3639 | 4407 | 4269 | | | |
| Hydrocarbon | Sussex Sandstone | 4407 | 4269 | 4687 | 4539 | | | Not productive in this area |
| Confining Layer | Pierre Formation | 4687 | 4539 | 4807 | 4654 | | | |
| Hydrocarbon | Shannon Sandstone | 4807 | 4654 | 4978 | 4819 | | | Not productive in this area |
| Confining Layer | Pierre Formation | 4978 | 4819 | 6312 | 6019 | | | |
| Subsurface Hazard | Sharon Springs | 6312 | 6019 | 6644 | 6109 | | | Sloughing shales |
| Hydrocarbon | Niobrara | 6644 | 6109 | 11244 | 6109 | | | |

OPERATOR COMMENTS AND SUBMITTAL

Comments: The nearest offset Well within the same unit permitted or completed in the same formation is the proposed State Antelope X-D-3HN.

This distance was measured in 2-dimensional space. The nearest existing or proposed wellbore belonging to another operator is the Well Ranch AF05-635, API #05-123-42128.

This application is in a Comprehensive Area Plan _____ CAP #: _____

OGDP ID#: 481212 OGDP Name: State Antelope B-2 Pad Expiration Date: 03/29/2025

Location ID: 159738 Location Name: State Antelope B-2 Pad N/A

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

Signed: _____ Print Name: Jeff Annable

Title: Lead, Regulatory Date: 4/28/2022 Email: jannable@civiresources.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: 6/24/2022

Expiration Date: 03/29/2025

API NUMBER

05 123 51731 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.

Condition of Approval

COA Type

Description

| | |
|--------------------------------|---|
| Interim Reclamation | Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017). |
| Construction | If conductors are preset, operator shall comply with Rule 406.e. |
| 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 is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation. 2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact COGCC engineering for approval 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 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with a cement bond log. 3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered. |

4 COAs

Best Management Practices

| No | BMP/COA Type | Description |
|----|--------------------------------|--|
| 1 | Drilling/Completion Operations | Alternative Logging Program: An existing well on the pad was logged with open-hole resistivity log with 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 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. |
| 2 | Drilling/Completion Operations | Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling. |

Total: 2 comment(s)

Attachment List

| Att Doc Num | Name |
|-------------|----------------------------|
| 403009443 | FORM 2 SUBMITTED |
| 403025411 | DEVIATED DRILLING PLAN |
| 403025413 | WELL LOCATION PLAT |
| 403025414 | DIRECTIONAL DATA |
| 403030381 | OffsetWellEvaluations Data |
| 403088822 | OFFSET WELL EVALUATION |

Total Attach: 6 Files

General Comments

| User Group | Comment | Comment Date |
|------------|---|--------------|
| Permit | Final Review Completed. | 06/21/2022 |
| Permit | Emailed the SLB to notify them of this pending application. SLB has no concerns with this application. | 06/17/2022 |
| OGLA | The Commission approved OGDG #481212 on 03/30/2022 for the Oil and Gas Location related to this Form 2. OGLA task passed. | 04/28/2022 |

Total: 3 comment(s)