

FORM
2
Rev
05/22

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:
403233906
Date Received:
12/28/2022

APPLICATION FOR PERMIT TO

Drill Deepen Re-enter Recomplete and Operate Amend
TYPE OF WELL OIL GAS COALBED OTHER: _____ Refile
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES Sidetrack

Well Name: Pronghorn K-5 Well Number: 31W-10-08
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

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance
 The Operator has provided or will provide Financial Assurance to the COGCC for this Well.
Surety ID Number (if applicable): 20120018

Federal Financial Assurance
 In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)
Amount of Federal Financial Assurance \$ _____

WELL LOCATION INFORMATION

Surface Location
QtrQtr: LOT 2 Sec: 5 Twp: 5N Rng: 61W Meridian: 6
Footage at Surface: 306 Feet FNL/FSL FNL 2131 Feet FEL/FWL FEL
Latitude: 40.436606 Longitude: -104.231334
GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 02/22/2019
Ground Elevation: 4659
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: 31 Twp: 6N Rng: 61W Footage at TPZ: 1320 FSL 460 FEL
Measured Depth of TPZ: 7529 True Vertical Depth of TPZ: 6083 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 31 Twp: 6N Rng: 61W Footage at BPZ: 1315 FSL 460 FWL
Measured Depth of BPZ: 11945 True Vertical Depth of BPZ: 6083 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 31 Twp: 6N Rng: 61W Footage at BHL: 1315 FSL 460 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? [X] Yes [] No

[X] 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: 10/29/2019

Comments: WOGLA19-0181

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

Surface Owner of the land at this Well's Oil and Gas Location: [X] Fee [] State [] Federal [] Indian

Mineral Owner beneath this Well's Oil and Gas Location: [X] Fee [] State [] Federal [] Indian

Surface Owner Protection Bond (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):

- [X] 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.)

Township 6 North Range 61 West
Section 31: NWNW

Total Acres in Described Lease: 37 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
Public Road: 2112 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 306 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.

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 | 407-1079 | 640 | T6N R61W SEC 31: 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: 460 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: 840 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 PROGRAMProposed Total Measured Depth: 11945 Feet TVD at Proposed Total Measured Depth 6083 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: 251 Feet No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs 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? NoWill salt sections be encountered during drilling? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? YesBOP Equipment Type: Annular Preventor Double Ram Rotating Head None

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

| Casing Type | Size of Hole | Size of Casing | Grade | Wt/Ft | Csg/Liner Top | Setting Depth | Sacks Cmt | Cmt Btm | Cmt Top |
|-------------|--------------|----------------|-------|-------|---------------|---------------|-----------|---------|---------|
| CONDUCTOR | 24 | 16 | N/A | 42 | 0 | 80 | 100 | 80 | 0 |
| SURF | 12+1/4 | 9+5/8 | J-55 | 36 | 0 | 1600 | 550 | 1600 | 0 |
| 1ST | 8+1/2 | 5+1/2 | P-110 | 20 | 0 | 11945 | 1507 | 11945 | 1500 |

 Conductor Casing is NOT planned**POTENTIAL FLOW AND CONFINING FORMATIONS**

| Zone Type | Formation /Hazard | Top M.D. | Top T.V.D. | Bottom M.D. | Bottom T.V.D. | TDS (mg/L) | Data Source | Comment |
|-------------------|-------------------|----------|------------|-------------|---------------|------------|-------------|--|
| Groundwater | Laramie-Fox Hills | 24 | 24 | 208 | 208 | 1001-10000 | Other | COGCC UPWQ Report Pronghorn K-5-8XRLNB (05-123-40087-0000) |
| Confining Layer | Pierre Formation | 208 | 208 | 444 | 443 | | | |
| Groundwater | Upper Pierre | 444 | 443 | 1521 | 1463 | 1001-10000 | Other | COGCC UPWQ Report Pronghorn K-5-8XRLNB (05-123-40087-0000) |
| Confining Layer | Pierre Formation | 1521 | 1463 | 3809 | 3313 | | | |
| Hydrocarbon | Parkman Sandtone | 3809 | 3313 | 4047 | 3503 | | | Not productive in the area |
| Confining Layer | Pierre Formation | 4047 | 3503 | 4746 | 4063 | | | |
| Hydrocarbon | Sussex Sandstone | 4746 | 4063 | 4871 | 4163 | | | Not productive in the area |
| Confining Layer | Pierre Formation | 4871 | 4163 | 5208 | 4433 | | | |
| Hydrocarbon | Shannon Sandstone | 5208 | 4433 | 5271 | 4483 | | | Not productive in the area |
| Confining Layer | Pierre Formation | 5271 | 4483 | 7159 | 5973 | | | |
| Subsurface Hazard | Sharon Springs | 7159 | 5973 | 7529 | 6083 | | | Sloughing shales |
| Hydrocarbon | Niobrara | 7529 | 6083 | 11945 | 6083 | | | |

OPERATOR COMMENTS AND SUBMITTAL

Comments

The distance to the completed portion of the nearest well in the same unit on the "Spacing & Formations" tab is measured to the proposed Pronghorn K-5 31W-10-09. This distance was measured in 2-dimensional space.

The distance to the nearest well belonging to another operator on the "Drilling Plan" tab was measured to the Bowman 32-1 (API #05-123-10480), DA. This distance was measured in 2-dimensional space.

Operator Comment: Pad has been built.

Changes: Casing plan was changed, Producing lateral was moved to a different section, Spacing unit information was changed.

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

Oil and Gas Development Plan Name _____ OGDP ID#: _____

Location ID: 438694

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: 12/28/2022 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: 2/6/2023

Expiration Date: 02/05/2026

API NUMBER

05 123 51219 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> |
|--------------------------------|---|
| 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 Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016). |
| Drilling/Completion Operations | Operator will log two (2) wells during the first rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the two stratigraphically deepest wells on each side of the pad |
| Drilling/Completion Operations | 1) Submit Form 42 electronically to COGCC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day 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. |
| Drilling/Completion Operations | Bradenhead Testing 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 | Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document Operator using Option 3. Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. BOWMAN *32-1 (API 123-10480) |
| 6 COAs | |

Best Management Practices

| No | BMP/COA Type | Description |
|-----------|--------------------------------|---|
| 1 | Drilling/Completion Operations | One of the first wells drilled on the pad during the first rig occupation will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for one of the stratigraphically deepest wells on the pad. 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 will state "Alternative Logging Program - No open-hole logs were run" and will 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 |
|--------------------|----------------------------|
| 403233906 | FORM 2 SUBMITTED |
| 403234082 | DEVIATED DRILLING PLAN |
| 403234084 | WELL LOCATION PLAT |
| 403234086 | DIRECTIONAL DATA |
| 403273720 | OffsetWellEvaluations Data |
| 403312985 | OFFSET WELL EVALUATION |

Total Attach: 6 Files

General Comments

| User Group | Comment | Comment Date |
|-------------------|--|---------------------|
| Permit | With operators concurrence checked refile, added API# and Operator comment. Final Review Completed. | 02/01/2023 |
| Permit | Requesting: Check refile, an API number, the Operator refile comment. | 01/31/2023 |
| Engineer | <ul style="list-style-type: none"> •Surface Casing Check complete •Offset well review complete 408.t - No wells 408.u - No wells •Engineering review complete | 01/09/2023 |
| OGLA | This Location (ID #438694) and its associated Form 2A materials were fully reviewed during the OGLA review of this APD in accordance with current Rules. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources. | 01/06/2023 |

Total: 4 comment(s)