

FORM
2

Rev
05/22

State of Colorado

Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403603121

Date Received:

11/30/2023

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: State Seventy Holes Well Number: 3U-20-01
Name of Operator: BONANZA CREEK ENERGY OPERATING COMPANY LLC COGCC Operator Number: 8960
Address: 555 17TH STREET SUITE 3700
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: NWNE Sec: 3 Twp: 4N Rng: 62W Meridian: 6

Footage at Surface: 287 Feet FNL 2314 Feet FEL

Latitude: 40.348200 Longitude: -104.311110

GPS Data: GPS Quality Value: 2.2 Type of GPS Quality Value: PDOP Date of Measurement: 05/20/2022

Ground Elevation: 4549

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: 4N Rng: 62W Footage at TPZ: 468 FNL 1899 FEL

Measured Depth of TPZ: 6687 True Vertical Depth of TPZ: 6333 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 3 Twp: 4N Rng: 62W Footage at BPZ: 470 FNL 844 FEL
Measured Depth of BPZ: 16127 True Vertical Depth of BPZ: 6243 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 3 Twp: 4N Rng: 62W Footage at BHL: 470 FNL 844 FEL
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: Other Date of Final Disposition: 09/11/2013

Comments: This location was permitted when oil and gas activities were a Use by Right for AG zoned properties in Unincorporated Weld County. Guidance received from Weld County staff states a new 1041 WOGLA is only required for existing Use by Right locations if new wells are being added or the location is changed substantially from what was permitted. Since we are not adding wells or changing the location a new Weld County 1041 WOGLA is not required. Therefore, the original Form 2A approval date will be used for the local permit approval date.

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

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

Mineral Owner beneath this Well's Oil and Gas Location: [] Fee [X] 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
- [X] 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 4 North Range 62 West
Section 3: NE4, S2

Total Acres in Described Lease: 480 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # OG-106632

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
Public Road: 5280 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 287 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	407-856	640	T4N R62W 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: 468 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: 804 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: 16127 Feet TVD at Proposed Total Measured Depth 6243 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: 902 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

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	N/A	37	0	114	100	114	0
SURF	13+1/2	9+5/8	J-55	36	0	1500	509	1500	0
1ST	8+1/2	5+1/2	P-110	20	0	16127	2356	16127	

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	109	109	225	225	0-500	Groundwater Atlas	USGS HA-650 (Robson et al, 1981)
Confining Layer	Pierre Formation	225	225	365	365			
Groundwater	Upper Pierre	365	365	1360	1355	501-1000	Electric Log Calculation	Seventy Holes 23-5 (05-123 -35671-000)
Confining Layer	Base of Upper Pierre	1360	1355	3349	3335			
Hydrocarbon	Parkman Sandstone	3349	3335	3590	3575			Not productive in the area
Confining Layer	Pierre Formation	3590	3575	3821	3805			
Hydrocarbon	Sussex Sandstone	3821	3805	3892	3875			Not productive in the area
Confining Layer	Pierre Formation	3892	3875	4695	4675			
Hydrocarbon	Shannon Sandstone	4695	4675	4826	4805			Not productive in the area
Confining Layer	Pierre Formation	4826	4805	5964	5935			
Subsurface Hazard	Sharon Springs	5964	5935	6078	6040			Sloughing shales
Hydrocarbon	Niobrara	6078	6040	16127	6243			

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 STATE SEVENTY HOLES K-O-3HNB. This distance was measured in 3-dimensional space.

The distance to the nearest well belonging to another operator on the "Drilling & Waste Plans" tab was measured to Anschutz State #4-62-2-3228CH2 (API #05-123-38964). This distance was measured in 3-dimensional space.

Attached as OTHER, is the anti-collision analysis which factors in three dimensional measurements as well as gyro surveys performed on some of the offset wellbores. All measurements to offset wellbores were derived from this analysis.

This application is in a Comprehensive Area Plan No CAP #: _____

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

Location ID: 434100

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: Manager, Regulatory Date: 11/30/2023 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: 1/17/2024

Expiration Date: 01/16/2027

API NUMBER

05 123 51897 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	This well will be drilled only if the State Seventy Holes P41-T44-3HN, Permit 403142576 is not drilled. Operator shall submit a Form 4 Sundry to abandon the State Seventy Holes P41-T44-3HN, Permit 403142576.
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.
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	Operator will log two (2) additional wells during the second rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells for each wellbore orientation of the pad for a total of 3 wells logged.
4 COAs	

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 during the second 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
403603121	FORM 2 SUBMITTED
403604306	WELL LOCATION PLAT
403604309	OTHER
403604312	DEVIATED DRILLING PLAN
403604320	DIRECTIONAL DATA
403610855	OffsetWellEvaluations Data
403656884	OFFSET WELL EVALUATION

Total Attach: 7 Files

General Comments

User Group	Comment	Comment Date
Permit	Final Review Completed.	01/12/2024
Permit	Emailed the SLB to notify them of this pending application. SLB has no concerns with this application.	01/04/2024
Permit	<ul style="list-style-type: none"> •BMP has been corrected to indicate second rig occupation as 1 well has already been drilled on the pad (API#123-37946). •Emailed the SLB to notify them of this pending application. •Permitting review complete and task passed. 	12/14/2023
OGLA	This Location and its associated Form 2A materials was fully evaluated during the review of this APD in accordance with the current Rules. This APD complies with all CECMC Rules and Staff does not anticipate any significant potential direct adverse impacts to public health, safety, welfare, the environment, and wildlife resources. OGLA task passed.	12/01/2023

Total: 4 comment(s)