

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:

403697349

Date Received:

04/14/2024

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: Maverick Well Number: 2W-20-02  
Name of Operator: EXTRACTION OIL & GAS INC ECMC Operator Number: 10459  
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

ECMC Financial Assurance

The Operator has provided or will provide Financial Assurance to the ECMC for this Well.

Surety ID Number (if applicable): 20190110

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: NWSE Sec: 36 Twp: 7N Rng: 67W Meridian: 6

Footage at Surface: 2360 Feet FSL 2099 Feet FEL

Latitude: 40.529910 Longitude: -104.839693

GPS Data: GPS Quality Value: 1.8 Type of GPS Quality Value: PDOP Date of Measurement: 08/10/2022

Ground Elevation: 4897

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: 2 Twp: 6N Rng: 67W Footage at TPZ: 1525 FSL 470 FEL

Measured Depth of TPZ: 10524 True Vertical Depth of TPZ: 7001 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 4 Twp: 6N Rng: 67W Footage at BPZ: 1378 FSL 150 FEL  
Measured Depth of BPZ: 20683 True Vertical Depth of BPZ: 7001 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 4 Twp: 6N Rng: 67W Footage at BHL: 1378 FSL 150 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: Approved Date of Final Disposition: 08/23/2023

Comments: Local Permit Number: 1041WOGLA23-0015

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 67 West  
Section 2: SW4

Total Acres in Described Lease: 166 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2008 Feet  
Building Unit: 2008 Feet  
Public Road: 2350 Feet  
Above Ground Utility: 338 Feet  
Railroad: 5280 Feet  
Property Line: 223 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           | 407-3571                | 720                           | T6NR67W: Sec 2 & 3 - S2, Sec 4 -E2SE4 |

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: 422 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: 20683 Feet TVD at Proposed Total Measured Depth 7001 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: 453 Feet  No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H<sub>2</sub>S 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**

| <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          | 26                  | 16                    | NA           | 36.95        | 0                    | 80                   | 105              | 80             | 0              |
| SURF               | 13+1/2              | 9+5/8                 | J55          | 36           | 0                    | 1500                 | 509              | 1500           | 0              |
| 1ST                | 8+1/2               | 5+1/2                 | P110         | 20           | 1500                 | 20683                | 3020             | 20683          | 1500           |

 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       | LaramieFox HillsFormation | 24              | 24                | 196                | 196                  | 1001-10000        | Other              | CSU Domestic Water Analysis Report Larry Moore Well-176559 |
| Confining Layer   | Pierre Formation          | 196             | 196               | 471                | 471                  |                   |                    |  |
| Groundwater       | Upper Pierre Aquifer      | 471             | 471               | 1408               | 1381                 | 1001-10000        | Other              | Colorado COGCC Project Number 2141 October 2017            |
| Confining Layer   | Base of Upper Pierre      | 1408            | 1381              | 4811               | 3716                 |                   |                    |  |
| Hydrocarbon       | Larimer Parkman Sandstone | 4811            | 3716              | 5298               | 4011                 |                   |                    | Not Productive in this area                                |
| Confining Layer   | Pierre Formation          | 5298            | 4011              | 5611               | 4201                 |                   |                    |  |
| Hydrocarbon       | Terry Sussex Sandstone    | 5611            | 4201              | 6056               | 4471                 |                   |                    | Not Productive in this area                                |
| Confining Layer   | Pierre Formation          | 6056            | 4471              | 6568               | 4781                 |                   |                    |  |
| Hydrocarbon       | Hygiene Shannon Formation | 6568            | 4781              | 6956               | 5016                 |                   |                    | Not Productive in this area                                |
| Confining Layer   | Pierre Formation          | 6956            | 5016              | 10257              | 6961                 |                   |                    |  |
| Subsurface Hazard | Sharon Springs Member     | 10257           | 6961              | 10524              | 7001                 |                   |                    | Sloughing Shales   |
| Hydrocarbon       | Niobrara Formation        | 10524           | 7001              | 20683              | 7001                 |                   |                    |  |

**OPERATOR COMMENTS AND SUBMITTAL**

Comments

The distance to the completed portion of the nearest well in the same unit on the "Spacing & Formation" tab is measured to the Maverick 2W-20-01. This distance was measured in 2-dimensional space.

The nearest existing or proposed wellbore belonging to another operator is the Bower 1-3, API #05-123-11189.

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 Maverick 7N67W - West OGD OGD ID#: 485539

Location ID: 486004

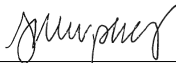
I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Jeff Annable

Title: Manager, Permitting Date: 4/14/2024 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 ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved: 

Director of ECMC Date: 5/31/2024

Expiration Date: 01/23/2027

**API NUMBER**  
05 123 52585 00

## CONDITIONS OF APPROVAL, IF ANY LIST

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>  |
|--------------------------------|---|
| Planning                       | Pursuant to Rule 702.b.(2), the approval of this Application for Permit to Drill constitutes a "change in circumstance" to the approved Financial Assurance Plan. The Operator must file a revised Form 3, Financial Assurance Plan, within 10 days of this approval.   |
| 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:<br>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.<br>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.<br>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 ECMC 2 business days prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 2 business days spud notice for all subsequent wells drilled on the pad.<br>2) Comply with Rule 408.j and provide cement coverage from the end of production casing to a minimum of 500' above Niobrara. Verify coverage with cement bond log.<br>3) Oil-based drilling fluid is to be used only after all aquifers are covered.   |
| 3 COAs                         |   |

## Best Management Practices

| <u>No</u> | <u>BMP/COA Type</u>            | <u>Description</u>  |
|-----------|--------------------------------|---|
| 1         | Drilling/Completion Operations | 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 | 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.   |
| 3         | Drilling/Completion Operations | Operator acknowledges and will comply with COGCC/ECMC policy for Bradenhead Monitoring during Hydraulic Fracturing treatments in the Greater Wattenberg Area dated May 29, 2012.  |

Total: 3 comment(s)

## ATTACHMENT LIST

| <u>Att Doc Num</u> | <u>Name</u>                |
|--------------------|----------------------------|
| 403697349          | FORM 2 SUBMITTED           |
| 403753283          | OffsetWellEvaluations Data |

|           |                        |
|-----------|------------------------|
| 403753285 | WELL LOCATION PLAT     |
| 403753286 | DEVIATED DRILLING PLAN |
| 403753287 | DIRECTIONAL DATA       |
| 403753288 | OTHER                  |
| 403809505 | OFFSET WELL EVALUATION |

Total Attach: 7 Files

### General Comments

| <u>User Group</u> | <u>Comment</u>  | <u>Comment Date</u> |
|-------------------|---|---------------------|
| Permit            | Final Review Completed.   | 05/17/2024          |
| Engineer          | Offset Wells Evaluated.   | 05/14/2024          |
| Permit            | Passes Permitting <ul style="list-style-type: none"> <li>• Added Surety ID Number to reflect most recent blanket plugging bond.</li> <li>• Proposed Total Measured Depth corrected from 20747' to 20683' with operator concurrence.</li> <li>• 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 corrected from 503' to 422' and well corrected from Maverick 2W-20-03 to Maverick 2W-20-01 with operator concurrence.</li> </ul> | 05/10/2024          |
| OGLA              | The Commission approved OGDG #485539 on January 24, 2024 for the Oil and Gas Location related to this Form 2. OGLA task passed.   | 04/16/2024          |

Total: 4 comment(s)