

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:

403097905

Date Received:

10/05/2022

## 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: BERRY FARMS

Well Number: 8-6HZ

Name of Operator: KERR MCGEE OIL &amp; GAS ONSHORE LP

COGCC Operator Number: 47120

Address: P O BOX 173779

City: DENVER

State: CO

Zip: 80217-3779

Contact Name: Ryan Seastrom

Phone: (720)929-3139

Fax: ( )

Email: ryan\_seastrom@oxy.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): 20010124

## 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: SENE Sec: 8 Twp: 3N Rng: 67W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 1423 Feet FNL 909 Feet FEL

Latitude: 40.243720

Longitude: -104.908075

GPS Data:

GPS Quality Value: 1.4

Type of GPS Quality Value: PDOP

Date of Measurement: 12/14/2020

Ground Elevation: 4819

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: 9 Twp: 3N Rng: 67W

Footage at TPZ: 2570 FNL 255 FWL

Measured Depth of TPZ: 7488

True Vertical Depth of TPZ: 6958

FNL/FSL

FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 11 Twp: 3N Rng: 67WFootage at BPZ: 1961 FSL 255 FELMeasured Depth of BPZ: 22651True Vertical Depth of BPZ: 7074 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 11 Twp: 3N Rng: 67WFootage at BHL: 1961 FSL 255 FELFNL/FSLFEL/FWL**LOCAL GOVERNMENT PERMITTING INFORMATION**County: WELDMunicipality: 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: 06/09/2022Comments: WOGLA#: 1041WOGLA21-0024  
Approved on: 06/09/2022**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 ☐ IndianMineral Owner beneath this Well's Oil and Gas Location: ☒ 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):

☒ 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 3 North, Range 67 West, 6th P.M.  
Section 10: NW, S2, W2NE, among other lands  
Weld County, Colorado

See attached Lease Map

Total Acres in Described Lease: 2434 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

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

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1300 Feet  
Building Unit: 1463 Feet  
Public Road: 896 Feet  
Above Ground Utility: 937 Feet  
Railroad: 5280 Feet  
Property Line: 379 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	407-3375	1600	T3N- R67W;09:N2,N2S2;10:N2,N2S2;11: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: 255 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: 531 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: 22651 Feet

TVD at Proposed Total Measured Depth 7074 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: 1208 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is 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? 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? Yes

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	ASTM A53 B	36.94	0	80	64	80	0
SURF	13+1/2	9+5/8	L80	36	0	1500	590	1500	0
1ST	7+7/8	5+1/2	HCP110	17	0	22641	2591	22641	

☐ 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	Fox Hills	0	0	79	79	501-1000	USGS	Depth data from DWR
Confining Layer	Pierre Shale	80	80	408	408			
Groundwater	Upper Pierre Aquifer	409	409	1230	1222	501-1000	Electric Log Calculation	
Confining Layer	Pierre Shale	1231	1223	4078	4014			
Hydrocarbon	Sussex	4079	4015	4294	4226			Non-productive
Confining Layer	Pierre Shale	4295	4227	4602	4528			
Hydrocarbon	Shannon	4603	4529	4695	4619			Non-productive
Confining Layer	Pierre Shale	4696	4620	7070	6841			
Hydrocarbon	Niobrara	7072	6842	0	0			

### OPERATOR COMMENTS AND SUBMITTAL

Comments

PLEASE ENSURE ALL CORRESPONDENCE ASSOCIATED WITH THIS PERMIT GOES TO ANALYST AND DJREGULATORY EMAIL ADDRESSES, AS LISTED ON THIS PERMIT.

Offset well buffer description for the subject well has been included on this permit for review as an attachment labeled "Other"

Base of Productive Zone is the same as Bottom Hole Location

The nearest offset wellbore permitted or completed in the same formation is: Berry Farms 8-5HZ: DOC ID #403097900

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

Oil and Gas Development Plan Name Democrat OGD OGD ID#: 482251

Location ID: 318973

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

Signed: \_\_\_\_\_ Print Name: Ryan Seastrom

Title: Regulatory Analyst Date: 10/5/2022 Email: djregulatory@oxy.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: 11/2/2022

Expiration Date: 09/06/2025

**API NUMBER**

05 123 51857 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.**

**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 Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016).
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	<p>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.</p> <p>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.</p>
Drilling/Completion Operations	<p>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 (option 4). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation will be completed, during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. Operator will equip the well with at least a 5,000 psi wellhead and monitor casing (surface and production) pressures during the entire stimulation treatment. Surface and production casing pressures of this offset well list will be actively monitored during the entire stimulation treatment of this pad. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and COGCC Engineering notified.</p> <p>123-21625PSC #15-10  123-23256PSC #2-10  123-24044PSC #24-11  123-15653FT ST VRAIN #24A  123-18317HSR-PSC #15-3  123-41355GOOSE #9N-A8HZ</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the non-operated well. Operator assures that this offset 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.</p> <p>123-19014PSC #31-10</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>123-18034FREAUFF #34-4A  123-18091PSC #43-11  123-19194HSR-PESCO #1-9A  123-15652FT ST VRAIN #23A  123-15651FORT SAINT VRAIN #21  123-10377FT ST VRAIN #9  123-10411BERRY #1  123-21633PSC #2-11  123-17958HSR-PESCO #4-11  123-21581PSC #3-9-5Y  123-31481BERRY P #08-27D  123-22781XCEL #14-10  123-21632PSC #15-11  123-24067PSC #27-11  123-24103PSC #39-11  123-25713PLATTE #35-2  123-19288HSR-BERRY #2-8  123-17925PSC #12-10A  123-18006PSC #22-11  123-24048PSC #37-11</p>
7 COAs	

## **Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	Kerr-McGee acknowledges and will comply with the COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.
2	Drilling/Completion Operations	Anti-Collision: Kerr-McGee will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within one hundred fifty (150) feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators within one hundred fifty (150) feet prior to drilling.
3	Drilling/Completion Operations	Open Hole Logging Exception: One of the first wells drilled on the pad will be logged with cased-hole neutron 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 in that well and have those logs attached. The Form 5 for each well shall state "Open Hole Logging Exception - 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)

## **Attachment List**

<b>Att Doc Num</b>	<b>Name</b>
403097905	FORM 2 SUBMITTED
403140198	DIRECTIONAL DATA
403140201	DEVIATED DRILLING PLAN
403140202	WELL LOCATION PLAT
403165594	OPEN HOLE LOGGING EXCEPTION
403166589	OTHER
403188350	LEASE MAP
403216142	OFFSET WELL EVALUATION

Total Attach: 8 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	11/01/2022
Permit	Permitting review complete	10/19/2022
Permit	RETURNED TO DRAFT: This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is returning this form to DRAFT for the applicant to resolve the issues. In compliance 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 resubmittal of any application, the COGCC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review. In addition to all standard required information and attachments, the COGCC hereby confirms the following information is necessary for review: 1. Mineral lease does not match Mineral lease map. 2. The Offset Well Evaluation is missing a large number of wells and comments for a majority of the wells.	10/05/2022
OGLA	The Commission approved OGDG #482251 on September 7, 2022 for the Oil and Gas Location related to this Form 2. OGLA task passed.	09/29/2022
Engineer	Operator's Offset Well Evaluation spreadsheet does not align wells with comments. Recommend RTD.	09/28/2022

Total: 5 comment(s)