

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:
402496873
Date Received:
09/15/2021

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: SBJ Well Number: 13-4HZ
Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP COGCC Operator Number: 47120
Address: P O BOX 173779
City: DENVER State: CO Zip: 80217-3779
Contact Name: SAMANTHA PETITE Phone: (720)929-3167 Fax: ()
Email: SAMANTHA_PETITE@OXY.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWNW Sec: 13 Twp: 4N Rng: 68W Meridian: 6

Footage at Surface: 2188 Feet FNL 1073 Feet FWL

Latitude: 40.315046 Longitude: -104.956873

GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 02/25/2020

Ground Elevation: 4860

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: 13 Twp: 4N Rng: 68W Footage at TPZ: 872 FNL 2341 FEL
Measured Depth of TPZ: 8052 True Vertical Depth of TPZ: 6868 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 15 Twp: 4N Rng: 68W Footage at BPZ: 831 FNL 185 FWL
Measured Depth of BPZ: 21441 True Vertical Depth of BPZ: 6549 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 15 Twp: 4N Rng: 68W Footage at BHL: 831 FNL 185 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: 10/22/2020

Comments: 1041 WOGLA has been submitted to Weld County and was approved on 10/22/2020. 1041 WOGLA 20-0010.

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.)

See attached mineral lease map.

Total Acres in Described Lease: 203 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 653 Feet
Building Unit: 653 Feet
Public Road: 2177 Feet
Above Ground Utility: 2166 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.

Railroad: 4841 Feet

Property Line: 318 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	407-3230	1640	4N68W: SEC 13 NW, W2NE4, N2SW4, SWSW, SEC 14 ALL, SEC 15 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: 185 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: 270 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: 21441 Feet TVD at Proposed Total Measured Depth 6549 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: 172 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 NoneBeneficial reuse or land application plan submitted? Yes

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	ASTM A53 B	36.94	0	80	64	80	0
SURF	13+1/2	9+5/8	L80	40	0	1500	590	1500	0
1ST	7+7/8	5+1/2	HCP110	17	0	21431	2443	21431	

 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	Fox Hills and Shallower	17	17	575	575	0-500	USGS	
Groundwater	Upper Pierre (Pawnee)	576	576	1085	1078	1001-10000	Electric Log Calculation	
Confining Layer	Pierre Shale	1086	1079	3475	3355			
Hydrocarbon	Parkman	3476	3356	3912	3771			
Confining Layer	Pierre Shale	3913	3772	3968	3824			
Hydrocarbon	Sussex	3969	3825	4234	4077			
Confining Layer	Pierre Shale	4235	4078	4537	4365			
Hydrocarbon	Shannon	4538	4366	4661	4483			
Confining Layer	Pierre Shale	4662	4484	6964	6651			
Hydrocarbon	Niobrara	6965	6652	8786	7004			
Hydrocarbon	Codell	8814	7005	9423	7027			

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: SBJ 13-6HZ, Doc #: 402496875

This application is in a Comprehensive Area Plan No CAP #:
OGDP ID#: OGDG Name: Expiration Date:
Location ID: 479198 Location Name:

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

Signed: Print Name: SAMANTHA PETITE

Title: REGULATORY ANALYST Date: 9/15/2021 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: 9/17/2021

Expiration Date: 09/16/2024

API NUMBER 05 123 51604 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

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	<p>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.</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> <p>3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 4 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document). Operator will submit a Form 42 ("OTHER – AS SPECIFIED BY PERMIT CONDITION") 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. A Bradenhead test will be performed on the offset wells listed below within 30 days prior to the beginning of stimulation of this well. Surface and production casing pressures of this offset well list will be actively monitored during stimulation of this well. Records shall be retained and provided to COGCC engineering upon request. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and COGCC Engineering notified.</p> <p>123-26143 STARCK *31-18 123-34984 Lamb *41-15 123-40780 SRC Cannon *14-16NHZ 123-40785 SRC Cannon *S-16NHZ 123-44810 MLD *9</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>123-09853 LITTLE THOMPSON GAS UNIT *1 123-10699 CRESSWELL *1 123-11588 BEIN * #1 123-12423 Dunklee 2</p>
3 COAs	

Best Management Practices

No	BMP/COA Type	Description
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

Att Doc Num	Name
402496873	FORM 2 SUBMITTED
402757520	DIRECTIONAL DATA
402757521	DEVIATED DRILLING PLAN
402757523	WELL LOCATION PLAT
402758856	OTHER
402783334	MINERAL LEASE MAP
402784665	OPEN HOLE LOGGING EXCEPTION
402815047	OFFSET WELL EVALUATION

Total Attach: 8 Files

General Comments

User Group	Comment	Comment Date
Permit	Permitting review complete. Final review complete.	09/15/2021
Engineer	Returned to draft for updates to PFZ table.	09/14/2021
Permit	Final Review Completed.	09/08/2021
Permit	With operators concurrence changed: Mineral lease description to "See attached mineral lease map." Permitting Review Complete.	08/31/2021
OGLA	The Location and its associated Form 2A materials were fully reviewed during the review of this APD. The Form 2A (doc# 402376823) for this location was approved with COAs to provide air, dust, light, odor, and noise plans for this location (Loc ID: 479198) prior to construction. The COA for air monitoring was satisfied via Sundry doc# 402718071 and the COAs for dust, light, odor, and noise plans was satisfied via Sundry doc# 402781450. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources. OGLA task passed.	08/30/2021
Permit	Location ID missing. Return to draft.	12/18/2020

Total: 6 comment(s)