

FORM
2
Rev
08/16

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:
401605928

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL GAS COALBED OTHER UNPLANNED
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Date Received:
04/12/2018

Well Name: QUARTER CIRCLE Well Number: 24-1HZX
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: CHERYL LIGHT Phone: (720)929-6461 Fax: (720)929-7461
Email: CHERYL.LIGHT@ANADARKO.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

QtrQtr: SWSW Sec: 24 Twp: 1N Rng: 67W Meridian: 6
Latitude: 40.030327 Longitude: -104.844301

Footage at Surface: 344 Feet FNL/FSL FSL 1141 Feet FEL/FWL FWL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4941 County: WELD

GPS Data:
Date of Measurement: 03/05/2018 PDOP Reading: 1.6 Instrument Operator's Name: ROB WILSON

If well is Directional Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL
897 FSL 245 FWL 49 FNL 159 FWL
Sec: 24 Twp: 1N Rng: 67W Sec: 13 Twp: 1N Rng: 67W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The Surface Owner is: is the mineral owner beneath the location.
(check all that apply) is committed to an Oil and Gas Lease.
 has signed the Oil and Gas Lease.
 is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Township 1 North, Range 67 West, 6th P.M.
Section 24: S/2S/2 except a tract desc as: Comm. @ a pt. 1212' N.
of SW/cor. of 24, th E 3132', th S28°15'E 223', th N83°15' E 371 ft.,
th NO°45'E 272' to E/W centerline of said S/2 of 24, th due W 3601'
to W boundary line of said 24, th due S 96' to p.o.b.

Total Acres in Described Lease: 148 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1340 Feet
Building Unit: 1340 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 355 Feet
Above Ground Utility: 342 Feet
Railroad: 5280 Feet
Property Line: 344 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone
 Exception Zone
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 05/12/2017

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 130 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 897 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

Spacing Unit: 1N/67W 24:W2W2, 23:E2E2, 13:W2W2, 14:E2E2, 11:SESE, 12:SWSW

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		720	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 17549 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: 318 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 Operations Plan)

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

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Please see Comments section. Disposal description will not fit in space provided.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	42.1	0	80	30	80	0
SURF	13+1/2	9+5/8	36	0	1850	590	1850	0
1ST	7+7/8	5+1/2	17	0	17539	2079	17539	

Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

Rule 318.c. Exception Location from Rule or Spacing Order Number _____

Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

Explanation of situation and why we need to sidetrack

- This well is a Nio C two section lateral. We reached a MD of 11,943' and had a motor failure. We tripped out of the hole to pick up a new motor and on the way back into the hole we encountered hole troubles at ~9,700'. The hole appears to be collapsing in at this depth. We attempted to clean up the hole without success, and need to sidetrack away from the part of formation that is giving us trouble.

Total Measured Depth Reached (Using KB of 20')

- 11,943' MD
- 7,386' TVD

Casing Sizes set and MD

- 16" conductor casing set at 80 ft. (using GL)
- 9.625" surface casing set at 1,850' MD (Using GL)

Type of cement (if necessary)

- We will first try an openhole sidetrack at 7,550 ft MD (Using KB). Only if this does not work, will we pump a cement plug and sidetrack off of plug.

- Contingency plug length = ~600'
- Weight: 17.0 ppg
- Yield: ~0.95 ft3/sk
- Sacks: ~249

Measured Depth and TVD of open hole sidetrack point (Using KB of 20')

- 7,550 ft. MD
- 7,279 ft. TVD

Proposed target formation of sidetrack hole if different than permitted

- Same well plan as permit

BHL of sidetrack hole

- Same well plan as permit

Wellbore diagram

- See attached

VERBAL APPROVAL GIVEN BY DIANA BURN ON 04/12/18. (see attached)

This application is in a Comprehensive Drilling Plan No CDP #: _____

Location ID: 453711

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____ Print Name: CHERYL LIGHT

Title: STAFF REGULATORY ANALYST Date: 4/12/2018 Email: djregulatory@anadarko.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 and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 4/14/2018

Expiration Date: 04/13/2020

API NUMBER

05 123 46264 01

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**

<u>COA Type</u>	<u>Description</u>

Best Management Practices

No BMP/COA Type **Description**

<u>No BMP/COA Type</u>	<u>Description</u>
1 Drilling/Completion Operations	BMPs will remain the same as originally permitted.

Total: 1 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

Att Doc Num **Name**

<u>Att Doc Num</u>	<u>Name</u>
401605928	FORM 2 SUBMITTED
401605976	WELLBORE DIAGRAM
401606006	CORRESPONDENCE

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	- COGCC Engineer confirmed no additional COAs required. - Lease description is confirmed as the majority of the S2S2 Section 24; lease does extend into the PSU. Final review complete.	04/13/2018
Engineer	The attached wellbore diagram shows an 8-1/2-inch hole but this form indicates 7-7/8- inch hole. Operator will confirm hole size on the Form 5 drilling completion reports. COAs for cementing, offset mitigation, and bradenhead tests on original form 2.	04/13/2018
Permit	Permitting review complete.	04/12/2018
Permit	Passed completeness. LGD and Public Comment periods waived by COGCC Staff. Comment periods do not apply to this application for an unplanned sidetrack when drilling is in progress.	04/12/2018
Permit	- Additional documents [Well Location Plat, SUA, PSU, Offset Well Eval, Exception Location Request, Deviated Drilling Plan, Directional Data] have not changed and are not required on this sidetrack APD; docs verified in the COGCC well file. - Open Hole Logging BMP not required on this sidetrack APD; no change from original well permit.	04/12/2018
Permit	- Corrected Zone Type from N/A to Single. - Checked box for "Buffer Zone". The location (453711) has two separate sites, the second of which is within 1000' of a building unit, so the associated Form 2A was approved as a Buffer Zone; every well in a Buffer Zone location is required to have the Buffer Zone box checked. This particular well is not within 1000' of a building unit, so no OGLA review required. - Checked boxes for GWA Windows and Twinning.	04/12/2018
Permit	Operator confirmed the addition of the letter "X" in the well name is intentional.	04/12/2018

Total: 7 comment(s)