

FORM
2

Rev
08/13

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:

400939926

(SUBMITTED)

Date Received:

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER _____

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: SWARTZ

Well Number: 2C-25HZ

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: CRAIG RICHARDSON

Phone: (720)929.6092

Fax: (720)929.7092

Email: CRAIG.RICHARDSON@ANADARKO.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

QtrQtr: SWSE Sec: 13 Twp: 2N Rng: 65W Meridian: 6

Latitude: 40.132086

Longitude: -104.610472

Footage at Surface: 334 feet FNL/FSL FSL 2105 feet FEL/FWL FEL

Field Name: _____

Field Number: _____

Ground Elevation: 4877

County: WELD

GPS Data:

Date of Measurement: 01/05/2015 PDOP Reading: 1.5 Instrument Operator's Name: BEN HARDENBERGH

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

Footage at Top of Prod Zone: FNL/FSL FNL/FWL Bottom Hole: FNL/FSL FNL/FWL

753 FSL 2050 361 FNL 2123 FEL

Sec: 13 Twp: 2N Rng: 65W Sec: 25 Twp: 2N Rng: 65W

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 2 North, Range 65 West, 6th P.M.

Section 13: NW/4, S/2

Section 15: NW/4, S/2

Section 23: NW/4, S/2

Section 25: NW/4, S/2

Section 27: NW/4, S/2

Township 2 North, Range 64 West, 6th P.M.

Section 9: NW/4, S/2

Section 11: NW/4, S/2

Section 15: NW/4, S/2

Section 17: NW/4, S/2

Section 19: Lots 1 and 2 (W/2W/2) (138.56), E/2W/2, SE/4

Section 21: NW/4, S/2

Section 23: NW/4, S/2

Weld County, Colorado

Total Acres in Described Lease: 5739 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: 922 Feet

Building Unit: 902 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 863 Feet

Above Ground Utility: 859 Feet

Railroad: 5280 Feet

Property Line: 334 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: 09/02/2015

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: 113 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 533 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

OBJECTIVE FORMATIONS

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| CODELL | CODL | | 240 | GWA |

DRILLING PROGRAMProposed Total Measured Depth: 13938 Feet

Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator:

199 Feet (Including plugged wells)Will 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 Operations Plan)Will 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**GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING**Water well sampling required per Rule 318A**DRILLING WASTE MANAGEMENT PROGRAM**Drilling Fluids Disposal: OFFSITEDrilling Fluids Disposal Methods: Commercial DisposalCuttings Disposal: OFFSITECuttings 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 |
|-------------|--------------|----------------|-------|---------------|---------------|-----------|---------|---------|
| SURF | 13+1/2 | 9+5/8 | 36 | 0 | 1800 | 710 | 1800 | 0 |
| 1ST | 7+7/8 | 5+1/2 | 17 | 0 | 13928 | 1637 | 13928 | 0 |

☒ 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

Drilling fluids disposal: KMG will reuse water-based drilling fluids to the maximum extent possible, at which point they will either be land applied or taken to a licensed, commercial disposal site; the decision will be based upon laboratory analysis of fluids. KMG will reuse oil-based drilling fluids to the maximum extent possible, at which point they will be returned to the fluids manufacturer for reconditioning or disposal at a licensed, commercial disposal site. Cuttings disposal: If the surface owner authorizes, and if it is feasible for this location at the time of drilling, water-based cuttings will be disposed of onsite using bioremediation/solidification product. If the surface owner does not authorize onsite disposal and/or it is not feasible for this location at the time of drilling, water-based cuttings will be disposed of using a Centralized E&P Waste Management facility or a private spread field. Oil-based cuttings will be disposed of offsite and at a licensed, commercial disposal site.

This proposed well will have a treated interval less than one hundred fifty (150) feet from the treated interval of another well and is subject to COGCC Rule 317.r.

The following well(s) belong to Kerr-McGee and will have treated intervals within one hundred fifty (150) feet of this proposed well:
SHAKLEE 28C-25HZ

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: _____ Print Name: CRAIG RICHARDSON

Title: REGULATORY ANALYST Date: _____ Email: CRAIG.RICHARDSON@ANAD

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: _____

Expiration Date: _____

API NUMBER

05

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

Best Management Practices

| No | BMP/COA Type | Description |
|----|--|--|
| 1 | Planning | 604c.(2).E. Multi-Well Pads: In order to reduce surface impact, this application is for a 6-well pad. |
| 2 | Planning | 604c.(2).Q. Guy Line Anchors: Should guy line anchors be left buried for future use, they shall be identified by a bright marker greater than four (4) feet high and no more than one (1) foot east of the guy line anchor. |
| 3 | Planning | 604c.(2).R. Tank Specifications: Two 500 barrel skid-mounted frac tanks will be temporarily placed on-site for use of the pre-spud rig only. One tank will store water and the other will store water based mud. |
| 4 | Planning | 604c.(2).S. Access Roads: KMG will utilize a lease access road from CR 47.5 for drilling and production operations and maintenance equipment. The road will be properly constructed and maintained to accommodate for local emergency vehicle access. |
| 5 | Planning | 604c.(2).V. Development From Existing Well Pads: Drilling from an existing well pad was not feasible for the development of the wells on this proposed oil and gas location; however, this well pad will be considered for future well locations. |
| 6 | Community Outreach and Notification | 305.a.(2) A Notice of Intent to Conduct Operations was sent to each building unit owner within the Exception Zone or Buffer Zone Setback. Recipients did not contact KMG with issues requiring additional mitigation. As a part of planning this proposed location, Kerr-McGee held multi-disciplinary Surface Impact Planning Meetings regarding the impacts and mitigations associated with this proposed location. The toll-free hotline number and email for the Anadarko Colorado Response Line will be posted at the entrance to the lease access road for stakeholders during drilling and completion operations at this proposed location. Courtesy Notifications will be sent to impacted stakeholders prior to drilling operations and again prior to completions operations, providing contact information for the Anadarko Colorado Response Line and online resources. |
| 7 | Traffic control | 604c.(2).D. Traffic Plan: If required by the local government, a traffic plan will be coordinated with the local jurisdiction prior to commencement of operations. |
| 8 | General Housekeeping | 604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped. |
| 9 | General Housekeeping | 604c.(2).P. Removal of Surface Trash: A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation. |
| 10 | Storm Water/Erosion Control | 604c.(2).W. Site-Specific Measures: KMG maintains a Storm Water Management Plan that assesses erosion control for every KMG operated location. This location will be added to this plan once construction begins. This site will be inspected every fourteen (14) days during construction activities, every twenty-eight (28) days after construction is completed, and after any major weather event. |
| 11 | Material Handling and Spill Prevention | 604c.(2).F. Leak Detection Plan: Automation technology will be utilized at this facility. This technology includes the use of fluid level monitoring for the tanks and produced water sumps, high-level shut offs, and electronic sensors to monitor the interstitial space of double-walled produced water sumps. All automation is monitored by Kerr-McGee's Integrated Operations Center (IOC), which is manned 24 hours per day, 7 days per week. |

| | | |
|----|--|--|
| 12 | Material Handling and Spill Prevention | 604c.(2).N. Control of Fire Hazards: KMG and its contractors will employ best management practices during the drilling and production of its wells and facilities and will comply with appropriate COGCC rules concerning safety and fire. KMG will ensure that any material that might be deemed a fire hazard will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s). |
| 13 | Dust control | 805.c. Dust: Water will be placed on dirt access roads to mitigate dust as needed. If feasible, magnesium chloride will also be used as needed on access roads to further abate dust. |
| 14 | Construction | 604c.(2).G. Berm Construction: A geosynthetic liner will be laid under the tanks on this location and a metal containment will be constructed. Berms or other secondary containment devices will be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for 150% of the largest single tank. |
| 15 | Construction | 604c.(2).M. Fencing Requirements: The completed wellsites will be surrounded with a fence and gate with adequate lock to restrict access to authorized personnel only. KMG personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or KMG personnel shall be on-site during drilling and completion operations. |
| 16 | Noise mitigation | 604c.(2).A. Noise: Sound surveys have been conducted on each rig type and are utilized to anticipate any additional effective noise mitigation once a drilling rig is determined. Sound mitigation barriers (straw bales) will be placed around the location to damper noise during drilling and completions to the nearby residences and to Weld County Roads 47.5 and 49. |
| 17 | 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. |
| 18 | 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. |
| 19 | Drilling/Completion Operations | 317.p Logging Program: One of the first wells drilled on the pad will be logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point to 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 and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run. |
| 20 | Drilling/Completion Operations | 604c.(2).B. Closed Loop Drilling System: KMG will use a closed loop or "pitless" system for drilling and fluid management and will not construct a reserve pit. |
| 21 | Drilling/Completion Operations | 604c.(2).C. Green Completions: Temporary above ground polyethylene water pipelines will deliver water to location operations from larger trunk lines to reduce truck traffic and minimize air pollution. Pipeline infrastructure is in place prior to completions operations to ensure saleable gas, once hydrocarbons are cut, is sent directly to sales without flaring during flowback. |
| 22 | Drilling/Completion Operations | 604c.(2).H. BOPE: Our rigs at a minimum will have a double ram with blind and pipe ram and annular preventer. |
| 23 | Drilling/Completion Operations | 604c.(2).I. BOPE Testing for Drilling Operations: Upon initial rig-up, BOPEs will be tested at a minimum of every 30 days. |
| 24 | Drilling/Completion Operations | 604c.(2).J. BOPE for Well Servicing Operations: Blowout prevention equipment will be used on any servicing operations associated with this well. Backup stabbing valves will be used during any future servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using low-pressure air and high-pressure fluid. |

| | | |
|----|--------------------------------|--|
| 25 | Drilling/Completion Operations | 604c.(2).K. Pit Level Indicators: All storage tanks used for active drilling operations (used in lieu of pits) contain pit level monitors with Electronic Drilling Recorders (EDR). KMG uses EDRs with pit level monitor(s) and alarm(s) for production rigs. Basic level gauges are used on tanks utilized for the surface rig. |
| 26 | Drilling/Completion Operations | 604c.(2).L. Drill Stem Tests: No drill stem tests are planned and none will be performed without prior approval from the Director. |
| 27 | Drilling/Completion Operations | 803. Lighting: To the extent practicable, site lighting shall be shielded and directed downward and inward toward operations to avoid glare on public roads and nearby Building Units. |
| 28 | Final Reclamation | 604c.(2).T. Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned. |
| 29 | Final Reclamation | 604c.(2).U. Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, KMG will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging. |

Total: 29 comment(s)

Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u> |
|---------------------------|----------------------------|
| 400944143 | OffsetWellEvaluations Data |
| 400944148 | DIRECTIONAL DATA |
| 400944151 | DEVIATED DRILLING PLAN |
| 400944152 | WELL LOCATION PLAT |
| 400944153 | PROPOSED SPACING UNIT |
| 400944155 | OTHER |
| 400944156 | SURFACE AGRMT/SURETY |
| 400944157 | EXCEPTION LOC WAIVERS |
| 400944159 | EXCEPTION LOC REQUEST |
| 400944160 | WASTE MANAGEMENT PLAN |

Total Attach: 10 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|--------------------------|-----------------------|----------------------------|
| | | |

Total: 0 comment(s)