

FORM
2A

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:

400476918

Date Received:

09/10/2013

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: _____

Submit signed original form. This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

434970

Expiration Date:

11/08/2016

This location assessment is included as part of a permit application.

CONSULTATION

This location is included in a Comprehensive Drilling Plan. CDP # _____

This location is in a sensitive wildlife habitat area.

This location is in a wildlife restricted surface occupancy area.

This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 47120

Name: KERR-MCGEE OIL & GAS ONSHORE LP

Address: P O BOX 173779

City: DENVER State: CO Zip: 80217-3779

Contact Information

Name: LAUREN KUCERA

Phone: (720) 929-6107

Fax: (720) 929-7107

email: lauren.kucera@anadarko.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124 Gas Facility Surety ID: _____

Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: XCEL

Number: 11C-22HZ

County: WELD

Quarter: SESW Section: 27 Township: 1N Range: 67W Meridian: 6 Ground Elevation: 5037

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 460 feet FSL from North or South section line

2145 feet FWL from East or West section line

Latitude: 40.016104 Longitude: -104.878387

PDOP Reading: 1.8 Date of Measurement: 01/16/2013

Instrument Operator's Name: Bart Pfeiffer

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: _____ Cuttings Disposal Method: _____

Other Disposal Description:

KMG will reuse drilling fluids to maximum extent then will either be land applied or taken to a commercial disposal site. Cuttings will be land applied and treated with a bioremediation/solidification product. Open hole logs will be run on first well.

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

Centralized E&P Waste Management Facility ID, if applicable: _____

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: _____ Phone: _____

Address: _____ Fax: _____

Address: _____ Email: _____

City: _____ State: _____ Zip: _____

Surface Owner: Fee State Federal Indian

Check all that apply. The Surface Owner: is the mineral owner
 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 from or produced to this Oil and Gas Location: _____

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

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

Date of Rule 306 surface owner consultation 01/23/2013

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: Irrigated Dry land Improved Pasture Hay Meadow CRP

Non-Crop Land: Rangeland Timber Recreational Other (describe): _____

Subdivided: Industrial Commercial Residential

Future Land Use (Check all that apply):

Crop Land: Irrigated Dry land Improved Pasture Hay Meadow CRP

Non-Crop Land: Rangeland Timber Recreational Other (describe): _____

Subdivided: Industrial Commercial Residential

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 681 Feet
Building Unit: 681 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 459 Feet
Above Ground Utility: 433 Feet
Railroad: 5280 Feet
Property Line: 433 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- 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: 08/06/2013

SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 82; Wiley-Colby complex, 1 to 3 percent slopes

NRCS Map Unit Name: 79: Weld loam, 1 to 3 percent slopes

NRCS Map Unit Name: _____

PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes No

Plant species from: NRCS or, field observation Date of observation: _____

List individual species: _____

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
 Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
 Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
 Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
 Mountain Riparian (Cottonwood, Willow, Blue Spruce)
 Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
 Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
 Alpine (above timberline)
 Other (describe): _____

WATER RESOURCES

Is this a sensitive area: No Yes

Distance to nearest

downgradient surface water feature: 2950 Feet

water well: 545 Feet

Estimated depth to ground water at Oil and Gas Location 39 Feet

Basis for depth to groundwater and sensitive area determination:

Is the location in a riparian area: No Yes

Was an Army Corps of Engineers Section 404 permit filed No Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule _____

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)

RULE 502.b VARIANCE REQUEST

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

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

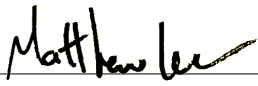
Comments

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

Signed: _____ Date: 09/10/2013 Email: djregulatory@anadarko.com

Print Name: LAUREN KUCERA Title: Regulatory Analyst II

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: 11/9/2013

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

<u>COA Type</u>	<u>Description</u>
	Operator must implement site-specific best management practices in accordance with good engineering practices, including, but not limited to, construction of a berm or diversion dike, site grading, or other comparable measures, sufficient to protect the irrigation ditch located 174 feet southeast of the oil and gas location from a release of drilling, completion, produced fluids, and chemical products.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	604c.(2).S. Access Roads: KMG will utilize the lease access road from WCR 4 for drilling operations and maintenance equipment. The road will be properly constructed and maintained to accommodate for local emergency vehicle access.
2	Planning	604c.(2).V. Development From Existing Well Pads: Due to surrounding Xcel Energy facilities, KMG will be constructing a new well pad to ensure there is no interference with their activities.
3	Traffic control	604c.(2).D. Traffic Plan: KMG will use Weld County roads. No additional traffic plans were required and/or requested.
4	General Housekeeping	604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.
5	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.
6	General Housekeeping	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.
7	Storm Water/Erosion Control	604c.(2).W. Site-specific Measures: KMG maintains a Stormwater Management Plan that includes each wellsite location that assesses erosion control for each well pad. This plan is updated every fourteen (14) days and after any major weather event.
8	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.
9	Material Handling and Spill Prevention	604c.(2).N. Control of Fire Hazards: KMG will ensure that any material that might be deemed a fire hazard will be will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s).
10	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.
11	Construction	604c.(2).M. Fencing Requirements: Per specific landowner request, no fencing will be installed to avoid interfering with farming operations.

12	Construction	604c.(2).R. Tank Specifications: Storage tanks will be designed, constructed and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). KMG will maintain written records to verify proper design, construction and maintenance. All records will be available for inspection by the Director.”
13	Noise mitigation	604c.(2).A. Noise: A sound mitigation buriar (hay bales) will be placed on the south and north side of the pad location to damper noise during drilling and completions to the nearby County Road 4 and surrounding Xcel Energy facilities. Sound surveys have been conducted on each rig type; which is utilized to anticipate any additional noise mitigation if necessary.
14	Drilling/Completion Operations	604c.(2).B. Closed Loop Drilling System: A closed loop drilling system will be utilized during drilling of the wells on this location.
15	Drilling/Completion Operations	604c.(2).C. Green Completions: KMG will install Vapor Recovery Unit(s) (VRU's) to prevent uncontrolled venting of flash gas. Environmental Control Devices (ECD) will be used to control working and breathing vapor losses for oil and water tanks. Produced oil and gas will be piped off of location to minimize air pollution.
16	Drilling/Completion Operations	604c.(2).E. Multiwell Pads: This application is new pad construction for three new wells and a tank battery.
17	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.
18	Drilling/Completion Operations	604c.(2).I. BOPE Testing for Drilling Operations: Upon initial rig-up, BOPE's will be tested at a minimum of every 30-days.
19	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.
20	Drilling/Completion Operations	604c.(2).K. Pit Level Indicators: All mud pits contain pit level monitors with Electronic Drilling Recorders (EDR) KMG uses an Electronic Drilling Recorder (EDR) with pit level monitor(s) and alarm(s) for production rigs. Basic level gages are used on pits utilized for the surface rig.
21	Drilling/Completion Operations	604c.(2).L. Drill Stem Tests: No drill stem tests will be performed without prior approval from the director.
22	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.
23	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: 23 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1667899	NRCS MAP UNIT DESC
1667900	FACILITY LAYOUT DRAWING
1667901	CORRESPONDENCE
1667902	RULE 306.E. CERTIFICATION
1667903	OTHER
400476918	FORM 2A SUBMITTED
400477503	SURFACE AGRMT/SURETY
400477597	WASTE MANAGEMENT PLAN
400477598	ACCESS ROAD MAP
400477599	HYDROLOGY MAP
400477600	LOCATION DRAWING
400477601	LOCATION PICTURES
400477603	NRCS MAP UNIT DESC
400477604	WELL LOCATION PLAT
400477605	MULTI-WELL PLAN

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	11/4/2013 1:26:22 PM
OGLA	Revised Facilities section with operator provided info, added missing NRCS Soil Map attachment, revised estimated depth to groundwater and basis for its determination. Added Facility Layout Drawing, pre-application notice certification, and meeting requirement certification attachments. OGLA review complete and task passed.	11/4/2013 11:15:14 AM
OGLA	ON HOLD: requested Facility Layout Drawing and proof Building Unit owners within the Buffer Zone received the pre-application notice.	10/1/2013 10:35:33 AM
Permit	Per operator corrected distance to building unit 681 & Building 681' per location drawing. ok to pass.	9/27/2013 9:10:00 AM
Permit	ON HOLD: requesting corrected distance to building unit 681 & Building 705' per location drawing.	9/23/2013 1:40:22 PM
Permit	This form has passed completeness.	9/16/2013 9:45:57 AM
Permit	Returned to draft: no related wells. Needs answer to Drilling fluids disposal. Surface owner is NOT Mineral owner but is committed to an O&G lease?	9/11/2013 11:39:27 AM

Total: 7 comment(s)