

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:

400718153

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Date Received:

11/22/2014

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: 417881

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:

417881

Expiration Date:

01/14/2018

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: 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 Gas Facility Surety ID: _____
 Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: SKIM STATE Number: 4N-21HZ
County: WELD
Quarter: SWSW Section: 21 Township: 3N Range: 65W Meridian: 6 Ground Elevation: 4847

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: 639 feet FSL from North or South section line
1241 feet FWL from East or West section line
Latitude: 40.205451 Longitude: -104.673448
PDOP Reading: 1.4 Date of Measurement: 08/07/2014
Instrument Operator's Name: ROB WILSON

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:	LOCATION ID #	FORM 2A DOC #
Production Facilities Location serves Well(s)	<u>327796</u>	<u> </u>
	<u>309879</u>	<u> </u>
	<u>327795</u>	<u> </u>
	<u>417888</u>	<u> </u>
	<u>327797</u>	<u> </u>

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	<u>16</u>	Oil Tanks*	<u> </u>	Condensate Tanks*	<u>2</u>	Water Tanks*	<u>4</u>	Buried Produced Water Vaults*	<u> </u>
Drilling Pits	<u> </u>	Production Pits*	<u> </u>	Special Purpose Pits	<u> </u>	Multi-Well Pits*	<u> </u>	Modular Large Volume Tanks	<u> </u>
Pump Jacks	<u>16</u>	Separators*	<u>26</u>	Injection Pumps*	<u> </u>	Cavity Pumps*	<u> </u>	Gas Compressors*	<u> </u>
Gas or Diesel Motors*	<u> </u>	Electric Motors	<u> </u>	Electric Generators*	<u> </u>	Fuel Tanks*	<u> </u>	LACT Unit*	<u>2</u>
Dehydrator Units*	<u> </u>	Vapor Recovery Unit*	<u>6</u>	VOC Combustor*	<u>2</u>	Flare*	<u> </u>	Pigging Station*	<u> </u>

OTHER FACILITIES*

Other Facility Type	Number
TEMPORARY 500 BBL TANKS	<u>2</u>
FLOW LINES	<u>58</u>
OIL PIPELINE	<u>1</u>
GAS PIPELINE	<u>3</u>

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

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.

Please see Comments section. Description of pipelines and flow lines does not fit in space provided.

CONSTRUCTION

Date planned to commence construction: 01/16/2015 Size of disturbed area during construction in acres: 20.00
 Estimated date that interim reclamation will begin: 09/16/2015 Size of location after interim reclamation in acres: 4.00
 Estimated post-construction ground elevation: 4847

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

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

Cutting Disposal: ONSITE Cuttings Disposal Method: Other

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: _____

Centralized E&P Waste Management Facility ID, if applicable: 149021

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: JOHN R MOSER

Phone: _____

Address: 6600 W 20TH STREET UNIT 11

Fax: _____

Address: _____

Email: _____

City: GREELEY State: CO Zip: 80634

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: Yes

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 07/11/2014

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

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	900 Feet	1152 Feet
Building Unit:	2930 Feet	2750 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	3262 Feet	3047 Feet
Above Ground Utility:	2887 Feet	2717 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	475 Feet	695 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.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

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: _____

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

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 be 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: 44 OLNEY LOAMY SAND, 1 TO 3 PERCENT SLOPES
 NRCS Map Unit Name: 72 VONA LOAMY SAND, 0 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: 09/24/2014

List individual species: Western Wheatgrass - Pascopyrum Smithii Fringe Sage - Artemisia Frigida Cheatgrass - Bromus Tectorum - (NOXIOUS WEED C-List) Tumble Mustard - Sisymbrium Altissimum Crested Wheatgrass - Agropyron Cristatum

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: 5280 Feet

water well: 891 Feet

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

Basis for depth to groundwater and sensitive area determination:

Basis for depth to groundwater: Identified water well (Permit #25721) located approximately 2,170' S of the proposed oil and gas location. Depth to groundwater at water well is 39' and the water well is at an elevation of approximately 4,833'.

Location Elevation: 4,847'

Distance to nearest surface water features: >5,280'

Distance to nearest water well(s):

891' SW, Permit 251809, depth 25', No Static Water Level, Elevation 4,857'
2,170' S, Permit 25721, depth 40', Static Water Level 25', Elevation 4,833'

Sensitive area determination: NOT A SENSITIVE AREA

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 318A

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	<p>The facility included in this disturbance area will collect the Skim State 4N-21HZ pad and the Milk 14N-28HZ pad. The existing facilities listed as #5 to the north on the Location Drawing (COGCC ID# 417881) will be rebuilt and expanded as outlined by #9 on the Location Drawing.</p> <p>REFERENCE AREA MAP COMMENTS: As outlined in Note #3 on the COGCC Form 2A Attachment Guidance: Reference Area Map "the operator may provide a statement that the area adjacent to the Oil and Gas Location in a given direction will be utilized for a reference area." The area to the East of the proposed Oil and Gas Location will be utilized for the reference area (please refer to the attached Reference Area Map and Reference Area Pictures for detail).</p> <p>OTHER DISPOSAL DESCRIPTION: 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.</p> <p>Cuttings disposal: The surface owner has agreed to disposal of water-based cuttings onsite using bioremediation/solidification product.</p> <p>PIPELINES: Buried pipelines will be utilized to gather the gas and oil product from the location (3 gas pipelines, 1 oil pipeline). Both gas and oil pipelines will be constructed from steel of suitable wall thickness and material grade to meet the respective gathering systems design pressure. Gas pipelines will range in diameter from 4" to 20"; oil pipelines from 4" to 12". Capacity of pipelines will vary based on diameter. Pipelines will begin at the location and terminate at larger trunk lines in the area.</p> <p>Temporary above ground polyethylene water pipelines (diameter 10" – 12" with a 60 BPM capacity) will deliver water to location operations from larger trunk lines.</p> <p>FLOW LINES: 21 flow lines will flow to the production facility location. During production, flow direction in the flow lines is from the well head to the production facility. The size of flow lines is typically 2". Flow lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the tank battery, approximately 200' each for the proposed Skim and Milk wells (16 total), 3,200' for location 327797, 1,500' for location 417888, 650' for location 327795, 1,500' for location 309879 and 1,600' for location 327796.</p> <p>21 fuel gas supply lines will also be installed from the well head to the production facility. During operation flow direction in the supply lines will be from the production facility to the well head. The size of the supply lines is typically 1". Supply lines will be constructed from poly or steel pipe, buried, and will equal the distance between the well heads and the tank battery, approximately 200' each for the proposed Skim and Milk wells (16 total), 3,200' for location 327797, 1,500' for location 417888, 650' for location 327795, 1,500' for location 309879 and 1,600' for location 327796.</p> <p>Gas lift lines are also occasionally installed (one per well) from the well head to the production facility. During operation flow direction in the gas lift lines will be from the production facility to the well head. The size of the gas lift lines is typically 2". Gas lift lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the tank battery, approximately 200' each for the proposed Skim and Milk wells (16 total).</p>
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I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 11/22/2014 Email: DJRegulatory@anadarko.com

Print Name: Mike McConaughey Title: Sr Regulatory Analyst

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: 1/15/2015

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 shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42.

Best Management Practices

<u>No BMP/COA Type</u>	<u>Description</u>
1 Planning	This proposed oil and gas location is located in a rural rangeland area. The nearest building unit is located 2,930' away.

Total: 1 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400718153	FORM 2A SUBMITTED
400718220	ACCESS ROAD MAP
400718221	LOCATION DRAWING
400718225	LOCATION PICTURES
400718232	NRCS MAP UNIT DESC
400718238	SURFACE AGRMT/SURETY
400718240	WASTE MANAGEMENT PLAN
400729652	REFERENCE AREA PICTURES
400729660	WELL LOCATION PLAT
400729662	MULTI-WELL PLAN
400729757	REFERENCE AREA MAP
400735306	HYDROLOGY MAP

Total Attach: 12 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
#Error	Final Review Completed. No LGD or public comment received.	1/14/2015 7:41:03 AM
#Error	OGLA review is complete. No public comments received. OGLA task passed.	12/23/2014 1:47:28 PM
#Error	Received email from internal that Form 10 for transfer between Noble and Kerr McGee was complete. OK to pass	12/23/2014 1:46:29 PM
#Error	Sent email to operator on 12/11/14 regarding new location vs. Noble location #417881. Email response waiting for Form 10 approval for change of operator. Spoke with operator on the phone. Sent copy of Form 10 submitted and concurred with changes to amended facility and removing duplicate drawing.	12/16/2014 5:21:47 PM
#Error	Passed completeness.	11/24/2014 7:59:10 AM

Total: 5 comment(s)