

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:

400802855

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Date Received:

05/20/2015

Oil and Gas Location Assessment

New Location     Refile     Amend Existing Location    Location#: 318784

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:

**318784**

Expiration Date:

**07/16/2018**

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: POWERS    Number: 35N-22HZ  
 County: WELD  
 QuarterQuarter: NENW    Section: 22    Township: 2N    Range: 65W    Meridian: 6    Ground Elevation: 4884

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: 750 feet FNL from North or South section line  
 1639 feet FWL from East or West section line  
 Latitude: 40.129333    Longitude: -104.653697  
 PDOP Reading: 2.2    Date of Measurement: 10/14/2014  
 Instrument Operator's Name: BART PFEIFER

## 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 #**

Well Site is served by Production Facilities

400802856

## FACILITIES

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

Wells	8	Oil Tanks*	_____	Condensate Tanks*	_____	Water Tanks*	_____	Buried Produced Water Vaults*	_____
Drilling Pits	_____	Production Pits*	_____	Special Purpose Pits	_____	Multi-Well Pits*	_____	Modular Large Volume Tanks	_____
Pump Jacks	7	Separators*	_____	Injection Pumps*	_____	Cavity Pumps*	_____	Gas Compressors*	_____
Gas or Diesel Motors*	_____	Electric Motors	_____	Electric Generators*	_____	Fuel Tanks*	_____	LACT Unit*	_____
Dehydrator Units*	_____	Vapor Recovery Unit*	_____	VOC Combustor*	_____	Flare*	_____	Pigging Station*	_____

## OTHER FACILITIES\*

**Other Facility Type**

**Number**

FLOW LINES	23
TEMPORARY 500 BBL TANKS	2

\*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 onsite 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: 08/01/2015 Size of disturbed area during construction in acres: 10.00

Estimated date that interim reclamation will begin: 12/01/2015 Size of location after interim reclamation in acres: 0.10

Estimated post-construction ground elevation: 4884

## DRILLING PROGRAM

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

Is H<sub>2</sub>S 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? Yes

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting 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: \_\_\_\_\_

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

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: ROBERT POWERS, ET AL

Phone: 719.229.4448

Address: 1985 OAK HILLS DRIVE

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: COLORADO State: CO Zip: 80919  
SPRINGS

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: oil and gas lease

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

Date of Rule 306 surface owner consultation 10/02/2014

## 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.

	<b>From WELL</b>	<b>From PRODUCTION FACILITY</b>
Building:	2132 Feet	_____ Feet
Building Unit:	2132 Feet	_____ Feet
High Occupancy Building Unit:	5280 Feet	_____ Feet
Designated Outside Activity Area:	5280 Feet	_____ Feet
Public Road:	5280 Feet	_____ Feet
Above Ground Utility:	1895 Feet	_____ Feet
Railroad:	5280 Feet	_____ Feet
Property Line:	750 Feet	_____ 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: 69 VALENT SAND, 0 TO 3 PERCENT SLOPES

NRCS Map Unit Name: 70 VALENT SAND, 3 TO 9 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: 03/10/2015

List individual species: Blue grama - Bouteloua gracilis, russian thistle- Salsola australis, buffalo grass- Buchloe dactyloides, unidentified prairie grass

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: 424 Feet

water well: 1146 Feet

Estimated depth to ground water at Oil and Gas Location 25 Feet

Basis for depth to groundwater and sensitive area determination:

Basis for depth to groundwater: Identified water well (Permit # 283235) located approximately 1472' WNW of the proposed oil and gas location. Depth to groundwater at water well is 17' and the water well is at an elevation of approximately 4876'.

Ditch: 424' N, Elev: 4880'

Loc Elev: 4884'

Nearest water wells:

1146' NNW, Permit 44555, depth 15', Static Water Level unknown, Elev 4877'

1472' WNW, Permit 283235, depth 50', Static Water Level 17', Elev 4876'

Sensitive Area Determination: SENSITIVE AREA. Down-gradient surface water feature within 1000'

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: \_\_\_\_\_

Is the Location within a Floodplain?  No  Yes Floodplain Data Sources Reviewed (check all that apply)

Federal (FEMA)

State

County

Local

Other

## 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 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.  
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: Water-based cuttings will be disposed of onsite using bioremediation/solidification product.  
Oil-based cuttings will be disposed of offsite and at a licensed, commercial disposal site.

FLOWLINE DESCRIPTION:  
Flow Lines: Seven 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 1700'.  
Seven 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 1700'.  
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 1700'.

The right to construct this Oil and Gas Location is granted by an oil and gas lease and an executed Surface Use Agreement has been attached only as a matter of record.

Appendix A of KMG's Memorandum of Understanding ("MOU") with the Town of Hudson is attached to this form as document type OTHER and outlines road use BMPs.

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

Signed: \_\_\_\_\_ Date: 05/20/2015 Email: djregulatory@anadarko.com

Print Name: Ronett Powers 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: 7/17/2015

### 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.**

#### COA Type

#### Description

	Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42 per Rule 316C.c.
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## Best Management Practices

<u>No</u>	<u>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 2132' away.
2	Planning	<p>604c.(2).S. Access Roads: KMG will utilize a lease access road from Weld County Road 18 for drilling and production operations and maintenance equipment. The road will be properly constructed and maintained to accommodate for local emergency vehicle access.</p> <p>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.</p> <p>KMG has entered into a Memorandum of Understanding ("MOU") with the Town of Hudson and the Best Management Practices pursuant to the use of Town roads is attached ("Appendix A").</p>

Total: 2 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668765	ACCESS ROAD MAP
1668770	CORRESPONDENCE
400802855	FORM 2A SUBMITTED
400840276	LOCATION DRAWING
400840278	WELL LOCATION PLAT
400840279	LOCATION PICTURES
400840281	MULTI-WELL PLAN
400840283	HYDROLOGY MAP
400840286	NRCS MAP UNIT DESC
400840288	SURFACE AGRMT/SURETY
400840290	REFERENCE AREA PICTURES
400840291	REFERENCE AREA MAP
400840293	WASTE MANAGEMENT PLAN
400840408	OTHER

Total Attach: 14 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. LGD comment addressed (see comments on form 2A); no public comment received.	7/16/2015 12:27:57 PM
OGLA	OGLA review complete, OGLA TASK PASSED	7/15/2015 11:58:27 AM
OGLA	Emailed Operator regarding traffic - operator responded via email (attached) stated - Kerr-McGee/Anadarko has initiated a traffic study and a traffic management plan from a third-party engineering firm and will continue to work with the Town of Hudson to draft an agreement for roads that is acceptable to both parties.	7/15/2015 11:57:46 AM
OGLA	Operator provided a new Access Road Map to meet COGCC requirements. COGCC attached new Access Road map and removed the original.	7/11/2015 11:41:58 AM
OGLA	Had a meeting with the operator on June 17 to discuss the onsite disposal. Operator understands that if onsite disposal does occur that a Form 4 Sundry and following the cuttings policy is necessary. Changed onsite cuttings disposal to offsite for the OBM and operator provided the correct E&P number. This is a former Noble location that was acquired by Kerr-McGee.	6/26/2015 1:34:15 PM

OGLA	OGLA review complete. Push location to ON HOLD until production goes to IN PROCESS	6/16/2015 10:07:36 AM
LGD	<p>Kerr McGee Oil Gas Onshore LP proposes eight oil gas wells, the "Powers" wells, to be located on a pad approximately one mile north of the corporate limits of the Town of Hudson. The Town's primary concerns with the wells are: traffic congestion within the Town, especially in the vicinity of the I-76 and Highway 52 interchange; and damage to Town streets that are proposed for access to the wells.</p> <p>To date, the Town has been informed of the applicant's intent to access the site via approximately four miles of Town streets, although the amount, character, timing and complete routing information of the added traffic has not been provided. The last mile of this route is gravel, and is primarily used by the Kerr McGee for access to existing and proposed wells and a natural gas compressor station that is also located on land bordering but outside of Town. The applicant has retained the services of a traffic engineer to prepare a report that should provide the necessary information and propose traffic management recommendations that will hopefully address the Town's concerns.</p> <p>COGCC has a requirement for an "Access Road Map" to be submitted with 2A applications. However, as the Town has pointed out on several occasions in the past, the requirement is inadequate. The Access Road Map provided with the application merely shows the internal driveway on the site to a gate, and not the access roads that are to be used by the applicant for completion and operation of the facilities. Mixing heavy oil gas traffic with local traffic on Town, County and State roads is a primary impact. This failure of COGCC to require complete and meaningful access and traffic information with applications is contrary to its stated mission: "Oil gas production is conducted in a manner consistent with the protection of public health, safety and welfare..."</p> <p>The applicant and the Town have an existing Memorandum of Understanding (MOU) from 2012 that provides some best management practices regarding traffic related to several pad sites. However, the MOU is seriously out of date. For example, Appendix A of the MOU that was submitted with the 2A application provides for "pre" and "post" pavement evaluations. However, both the Town and the applicant agreed that this approach was impractical, based on their respective experience with implementation of such pavement evaluations. Appendix B of the MOU, not submitted with the 2A application, also provides for access to the Powers wells from the north, a route that would not require use of Town streets. In a meeting with the applicant on June 9, 2015, the applicant expressed reluctance to negotiate a new MOU. The Town remains willing to negotiate a relevant and updated agreement when acceptable traffic information is provided.</p> <p>As with any oil and gas facility developed in or near Hudson, the Town relies on the State of Colorado to ensure that air and water quality are protected, and that noise, light pollution and other environmental impacts during completion and operation of the facilities are mitigated.</p> <p>The applicant has a well-established history of working well with Hudson. We appreciate the opportunity to present comments, and look forward to working with the applicant and with the Commission toward a successful and responsible project.</p> <p>Joe Racine Town Administrator Town of Hudson</p>	6/15/2015 3:11:56 PM
Permit	Permitting Review Complete.	6/15/2015 11:24:17 AM
Permit	Corrected Footage at surface from "FEL" to "FWL" to match the Well Location Plat. Passed completeness.	5/26/2015 8:33:56 AM

Total: 9 comment(s)