

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:

400500931

Date Received:

11/12/2013

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:

435886

Expiration Date:

01/17/2017

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: AGGREGATE STATE TANK BATTERY

Number: 37C-16HZ

County: WELD

Quarter: NWSE Section: 9 Township: 2N Range: 66W Meridian: 6 Ground Elevation: 4931

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: 1825 feet FSL from North or South section line

1640 feet FEL from East or West section line

Latitude: 40.150386 Longitude: -104.778643

PDOP Reading: 6.0 Date of Measurement: 07/10/2013

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:	<u>LOCATION ID #</u>	<u>FORM 2A DOC #</u>
Production Facilities Location serves Well(s)	435597	_____
	317583	_____
	332118	_____
	318802	_____
	330897	_____
	305732	_____
	434766	_____
	332255	_____
	305731	_____
	435830	_____

FACILITIES

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

Wells _____	Oil Tanks <u>14</u>	Condensate Tanks _____	Water Tanks <u>2</u>	Buried Produced Water Vaults _____
Drilling Pits _____	Production Pits _____	Special Purpose Pits _____	Multi-Well Pits _____	Temporary Large Volume Above Ground Tanks _____
Pump Jacks _____	Separators <u>14</u>	Injection Pumps _____	Cavity Pumps _____	
Gas or Diesel Motors _____	Electric Motors _____	Electric Generators _____	Fuel Tanks _____	Gas Compressors _____
Dehydrator Units _____	Vapor Recovery Unit <u>14</u>	VOC Combustor _____	Flare <u>14</u>	LACT Unit <u>2</u>
				Pigging Station _____

OTHER FACILITIES

<u>Other Facility Type</u>	<u>Number</u>
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Oil Line	1
Flow Lines	14
Gas Line	1

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

See Comments Section for Flowline Information.

CONSTRUCTION

Date planned to commence construction: 04/01/2014 Size of disturbed area during construction in acres: 2.00
 Estimated date that interim reclamation will begin: 07/01/2014 Size of location after interim reclamation in acres: 1.50
 Estimated post-construction ground elevation: 4931

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: _____
 Is H₂S anticipated? _____
 Will salt sections be encountered during drilling: _____
 Will salt based mud (>15,000 ppm Cl) be used? _____
 Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: _____ Drilling Fluids Disposal Method: _____

Cutting Disposal: OFFSITE Cuttings Disposal Method: Other

Other Disposal Description:

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: Anadarko E&P Onshore LP

Phone: 303-655-4350

Address: 195 Telluride, Suite 1

Fax: _____

Address: _____

Email: _____

City: Brighton State: CO Zip: 80601

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: No

The right to construct this Oil and Gas Location is granted by: applicant is owner

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

Date of Rule 306 surface owner consultation 08/28/2013

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: 1650 Feet
Building Unit: 1650 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 1500 Feet
Above Ground Utility: 1500 Feet
Railroad: 5280 Feet
Property Line: 460 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: _____

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: 73 Vona loamy sand, 3 to 5 percent slopes

NRCS Map Unit Name: 76 Vona sandy 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: 443 Feet

water well: 1687 Feet

Estimated depth to ground water at Oil and Gas Location 125 Feet

Basis for depth to groundwater and sensitive area determination:

Aggregate State 37C-16HZ Facility 10/23/2013
Nearest surface water feature: Ditch 439' SW, elevation 4915'
Well elevation: 4931'
Closest water well(s):
1687' SW, permit 177217, depth 580, static water level 285, Fox-Hills well
2735' NE, permit 17137, well depth 100', static water level 10', well elevation 4955'
Sensitive area determination: SENSITIVE AREA. Surface water feature within 1000' of location. Depth to groundwater less than 20'.

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

Pipelines: Buried pipelines will be utilized to gather the gas and oil product from the location (1 gas pipeline, 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.

Temporary above ground polyethylene water pipelines (diameter 10" – 12" with a 60 BPM capacity) will deliver water to location operations from larger trunk lines.

Flow Lines: 14 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 are constructed from steel pipe, are buried, and vary in length generally equaling the distance between the well heads and the tank battery (typically ranging from 75' to 3500" feet).

14 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 are constructed from poly or steel pipe, buried, and vary in length generally equaling the distance between the well heads and the tank battery (typically ranging from 75' to 3500" feet).

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 are constructed from steel pipe, buried, and vary in length generally equaling the distance between the well heads and the tank battery (typically ranging from 75' to 3500" feet).

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

Signed: _____ Date: 11/12/2013 Email: CHERYL.LIGHT@ANADARKO.COM

Print Name: CHERYL LIGHT 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: 1/18/2014

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>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	The nearest building unit is located 1650' away from this oil and gas location, therefore it is not within a Designated Setback Location and is exempt from 604.c.
2	Material Handling and Spill Prevention	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.

Total: 2 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2086825	LOCATION PICTURES
400500931	FORM 2A SUBMITTED
400500956	LOCATION DRAWING
400500958	HYDROLOGY MAP
400500976	WASTE MANAGEMENT PLAN
400500977	NRCS MAP UNIT DESC
400511660	ACCESS ROAD MAP

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Added remote wells that will be served by this facility as provided by KM, Form taken off HOLD for final approval.	1/17/2014 10:44:27 AM
Final Review	Final Review - placed ON HOLD for related remote location information.	1/11/2014 11:07:04 AM
OGLA	Added tank battery BMP, uploaded new Location Pictures.	12/11/2013 12:40:08 PM
Permit	Ready to pass.	11/29/2013 11:54:55 AM
Permit	This form has passed completeness.	11/13/2013 1:15:35 PM

Total: 5 comment(s)