

**FORM
2A**
Rev
04/01

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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Document Number:
400178073

Oil and Gas Location Assessment

☒ New Location ☐ Amend Existing Location Location#: _____

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this 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. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:

424434

Expiration Date:

07/23/2014

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

1. 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.

2. Operator

Operator Number: 10338
Name: CARRIZO OIL & GAS INC
Address: 1000 LOUISIANA STREET #1500
City: HOUSTON State: TX Zip: 77002

3. Contact Information

Name: Terry Hoffman
Phone: (720) 542-8287
Fax: (720) 542-9213
email: terry@rockymountainpermitting.com

4. Location Identification:

Name: Shull Number: 35-11-9-60
County: WELD
QuarterQuarter: NWNW Section: 35 Township: 9N Range: 60W Meridian: 6 Ground Elevation: 4942
Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.
Footage at surface: 245 feet FNL, from North or South section line, and 245 feet FWL, from East or West section line.
Latitude: 40.713206 Longitude: -104.067811 PDOP Reading: 1.8 Date of Measurement: 05/26/2011
Instrument Operator's Name: L.S.

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text" value="2"/>	Wells: <input type="text" value="1"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text"/>	Water Tanks: <input type="text" value="1"/>	Separators: <input type="text" value="2"/>	Electric Motors: <input type="text" value="1"/>	Multi-Well Pits: <input type="text"/>
Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text"/>
Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text"/>	Flare: <input type="text" value="1"/>
Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text"/>	Oil Tanks: <input type="text" value="4"/>	Fuel Tanks: <input type="text"/>	

Other: Freshwater storage pit, heater treater and separators (one high pressure & one low pressure). Jet pump and flare until pipeline connection is ready.

6. Construction:

Date planned to commence construction: 08/23/2011 Size of disturbed area during construction in acres: 4.40
 Estimated date that interim reclamation will begin: 11/23/2011 Size of location after interim reclamation in acres: 1.00
 Estimated post-construction ground elevation: 4941 Will a closed loop system be used for drilling fluids: Yes ☐
 Will salt sections be encountered during drilling: Yes ☐ No ☒ Is H2S anticipated? Yes ☐ No ☒
 Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes ☐ No ☒
 Mud disposal: Offsite ☐ Onsite ☒ Method: Land Farming ☐ Land Spreading ☐ Disposal Facility ☐
 Other: Landfarm Burial or Evaporation

7. Surface Owner:

Name: _____ Phone: _____
 Address: _____ Fax: _____
 Address: _____ Email: _____
 City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: _____
 Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian
 Mineral Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian
 The surface owner is: ☒ the mineral owner ☒ committed to an oil and gas lease
☐ is the executer of the oil and gas lease ☐ the applicant
 The right to construct the location is granted by: ☒ oil and gas lease ☐ Surface Use Agreement ☐ Right of Way
☐ applicant is owner
 Surface damage assurance if no agreement is in place: ☐ \$2000 ☐ \$5000 ☐ Blanket Surety ID _____

8. Reclamation Financial Assurance:

☒ Well Surety ID: 20100108 ☐ Gas Facility Surety ID: _____ ☐ Waste Mgnt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
 Distance, in feet, to nearest building: 3182, public road: 251, above ground utilit: 218
 , railroad: 5280, property line: 245

10. 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

11. 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

12. Soils:

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.gov/> 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: 41 Nunn clay loam, 0 to 6 percent slopes

NRCS Map Unit Name: 27 Epping silt loam, 0 to 9 percent slopes

NRCS Map Unit Name: 31 Kim-Mitchell complex, 0 to 6 percent slopes

13. 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: Western wheatgrass & needlegrass.

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): _____

14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☐ No ☒ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☒ No ☐ Yes

Distance (in feet) to nearest surface water: 500, water well: 3135, depth to ground water: 36

Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes

Is the location within a Rule 317B Surface Water Supply Area buffer zone:

☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. 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: ☐ No ☐ Yes

15. Comments:

All footage 5280' are 1 mile or greater. The closest water well is Permit #118621. The closest water well with a static water level of 36' is Permit #200307.

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

Signed: _____ Date: 06/24/2011 Email: terry@rockymountainpermitting.com

Print Name: Terry L. Hoffman Title: Permit Agent

IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.

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: David S. Neslin Director of COGCC Date: 7/24/2011

CONDITIONS OF APPROVAL, IF ANY:

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.

The fresh water storage pit is constructed partially in fill. Erosion control measures shall be implemented to prevent erosion of the eastern berm of the fresh water storage pit. Erosion Control Measures should include stabilization of the fresh water storage pit berm as well as installation of a barrier to prevent sediment from traveling off the location.

The location disturbance shall not encroach the embankment and playa located approximately 470 feet east of the proposed well.

A Form 15 Pit Report must be submitted within 30 days of construction of the Fresh Water Storage Pond.

Attachment Check List

Att Doc Num	Name
2613750	NRCS MAP UNIT DESC
400178073	FORM 2A SUBMITTED
400178196	LOCATION DRAWING
400178209	LOCATION PICTURES
400178210	REFERENCE AREA MAP
400178211	REFERENCE AREA PICTURES
400178221	NRCS MAP UNIT DESC
400178222	OTHER
400178223	CONST. LAYOUT DRAWINGS
400178224	CONST. LAYOUT DRAWINGS
400178790	OTHER
400178792	HYDROLOGY MAP
400178793	ACCESS ROAD MAP

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	discussed site construction and COAs with operator engineer; OGLA task passed with COAs.	7/20/2011 8:23:55 AM
OGLA	Location is a sensitive area due to the possibility of the presence of unconfined shallow ground water - see water well permits 151884, 10-WCB, 223685 ; requested clarification on location proximity to playa	6/29/2011 11:53:39 AM
OGLA	Added NRCS Map Units Epping & Kim-Mitchell; changed distance to nearest surface water from 5280 feet to 1400 feet based on several playas visible in aerial photographs and mapped on USGS Topographic maps.	6/29/2011 11:23:24 AM
Permit	This is a pilot/lateral drilling plan. The permits will be on hold pending the completion of the 20 day public comment period at which time they will be approved together to maintain proper API number designations.	6/28/2011 6:03:10 AM

Total: 4 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Construction	<p>Operator will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completion.</p> <p>Operator will implement best management practices to contain any unintentional release of fluids.</p> <p>Operator has designed the well pad with insloping and a storm water control ditch to prevent storm water run-on/runoff and the release of fluids from the location. See attached Construction Layout Drawing.</p> <p>Fresh water for the Fresh Water Storage Pit comes from water provider; water sources permitted for consumable industrial use.</p> <p>Operator shall not allow any fluids to flow back to the Fresh Water Storage Pit.</p> <p>Fresh Water Storage Pit shall contain fresh water only and signage prohibiting the use of the pit for any fluid that does not come from municipal, irrigation or surface water source.</p> <p>The location will be fenced and the fenced area will include the Fresh Water Storage Pit.</p> <p>The COGCC to be notified 48 hours prior to construction of the Fresh Water Storage Pit.</p>

Total: 1 comment(s)