

**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:
400171337

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:

424421

Expiration Date:

07/22/2014

☒ 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: Fabrianna Venaducci

Phone: (303) 279-0789

Fax: (303) 279-1124

email: fabrianna@jameskaro.com

4. Location Identification:

Name: Slick Rock Number: 18-44-7-60

County: WELD

QuarterQuarter: SESE Section: 18 Township: 7N Range: 60W Meridian: 6 Ground Elevation: 4922

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 FSL, from North or South section line, and 965 feet FEL, from East or West section line.

Latitude: 40.568590 Longitude: -104.130600 PDOP Reading: 1.8 Date of Measurement: 04/14/2011

Instrument Operator's Name: L. Kelley Stevenson

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; Separators - one high pressure, one low pressure; Jet Pump; Flare until pipeline connection ready.

6. Construction:

Date planned to commence construction: 08/01/2011 Size of disturbed area during construction in acres: 4.24
Estimated date that interim reclamation will begin: 02/01/2012 Size of location after interim reclamation in acres: 2.00
Estimated post-construction ground elevation: 4922 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: _____

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 20100170

8. Reclamation Financial Assurance:

☐ Well Surety ID: 20100108 ☐ Gas Facility Surety ID: _____ ☐ Waste Mgmt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
Distance, in feet, to nearest building: 6280 , public road: 223 , above ground utilit: 716
 , 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: Olney fine sandy loam, 6 to 9 percent slopes (45)

NRCS Map Unit Name: Olney fine sandy loam, 0 to 6 percent slopes (44)

NRCS Map Unit Name: _____

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: Needlegrass, Prairie Sandreed, Sand Dropseed, Little Bluestem, Sideoats Grama,

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): See individual species listed above

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: 2150, water well: 6682, depth to ground water: 168

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:

Nearest surface water is a lake, approximately 1.5 miles to the northwest in the S2 of Sec 12. Nearest water well is a domestic, stock well approximately 6682' to the southeast in the SE of Sec 20; no depth to ground water provided. Second nearest water well is a domestic, stock well approximately 6722' to the southeast in the SE of Sec 20; depth to ground water is 168'. Permit was canceled 1/28/08. Nearest building and railroad are more than 5280' from the location. THIS FORM 2A IS SUBMITTED IN CONJUNCTION WITH FORM 2 (DOCUMENT NUMBER 400171310 - PILOT) AND FORM 2 (DOCUMENT NUMBER 400171328 - HORIZONTAL).

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

Signed: _____ Date: 06/22/2011 Email: fabrianna@jameskaro.com

Print Name: Fabrianna Venaducci Title: Contract Landman

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. Nesline

Director of COGCC

Date: 7/23/2011

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.

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

Attachment Check List

Att Doc Num	Name
2613751	CORRESPONDENCE
2613772	REFERENCE AREA PICTURES
2613773	REFERENCE AREA MAP
400171337	FORM 2A SUBMITTED
400172079	LOCATION PICTURES
400172080	LOCATION DRAWING
400172081	HYDROLOGY MAP
400172082	ACCESS ROAD MAP
400172083	ACCESS ROAD MAP
400172084	REFERENCE AREA PICTURES
400172085	NRCS MAP UNIT DESC
400172086	NRCS MAP UNIT DESC
400172087	OTHER
400172088	OTHER
400172089	CONST. LAYOUT DRAWINGS

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	The reference area is on undisturbed ground directly adjacent to, and northwest of, the proposed location, as shown in the "northwest" reference area photo. Ready to Pass 7/14/2011.	7/1/2011 8:54:39 AM
OGLA	Changed distance to nearest surface water based on playas southeast of location.	6/28/2011 10:00:31 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.	6/24/2011 10:08:50 AM
Permit	Right to construct corrected to Bond with permission of Opr-Moriah. sbf	6/23/2011 11:09:30 AM

Total: 4 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	<p>Operator will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completion. Operator will implement best management practices to contain any unintentional release of fluids.</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>
Construction	<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>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: 2 comment(s)