

FORM  
2A

Rev  
04/01

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:

400385792

Date Received:

02/28/2013

Oil and Gas Location Assessment

☐ New Location

☒ Amend Existing Location Location#: 427480

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:

**427480**

Expiration Date:

**03/29/2016**

☒ 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: 500 DALLAS STREET #2300

City: HOUSTON State: TX Zip: 77002

3. Contact Information

Name: Tina Taylor

Phone: (713) 328-1000

Fax: (713) 328-1060

email: tina.taylor@crzo.net

4. Location Identification:

Name: Castor Number: 36-11-9-59

County: WELD

QuarterQuarter: NWNW Section: 36 Township: 9N Range: 59W Meridian: 6 Ground Elevation: 4891

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: 860 feet FNL, from North or South section line, and 1270 feet FWL, from East or West section line.

Latitude: 40.712050 Longitude: -103.930850 PDOP Reading: 1.7 Date of Measurement: 07/09/2012

Instrument Operator's Name: Marc Woodard

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

Special Purpose Pits: <input type="checkbox"/>	Drilling Pits: <input type="text" value="1"/>	Wells: <input type="text" value="4"/>	Production Pits: <input type="checkbox"/>	Dehydrator Units: <input type="text" value="2"/>
Condensate Tanks: <input type="checkbox"/>	Water Tanks: <input type="text" value="4"/>	Separators: <input type="text" value="2"/>	Electric Motors: <input type="checkbox"/>	Multi-Well Pits: <input type="checkbox"/>
Gas or Diesel Motors: <input type="text" value="5"/>	Cavity Pumps: <input type="checkbox"/>	LACT Unit: <input type="checkbox"/>	Pump Jacks: <input type="text" value="4"/>	Pigging Station: <input type="checkbox"/>
Electric Generators: <input type="checkbox"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="checkbox"/>	Water Pipeline: <input type="checkbox"/>	Flare: <input type="text" value="1"/>
Gas Compressors: <input type="checkbox"/>	VOC Combustor: <input type="text" value="2"/>	Oil Tanks: <input type="text" value="12"/>	Fuel Tanks: <input type="checkbox"/>	

Other: Freshwater Storage pit, Heater Treater, Separators-one high pressure, one low pressure, Jet pump, one propane tank, Flare until pipeline connection ready.

6. Construction:

Date planned to commence construction: 04/01/2013 Size of disturbed area during construction in acres: 7.00  
Estimated date that interim reclamation will begin: 12/31/2015 Size of location after interim reclamation in acres: 2.00  
Estimated post-construction ground elevation: 4889 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: 02/26/2013  
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: 5280, public road: 5280, above ground utility: 950,  
railroad: 5280, property line: 860

## 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: 3 Agiustolls-Rock outcrop complex, 0 to 9 percent slopes

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

NRCS Map Unit Name: 47 Otero sandy loam, 3 to 9 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: \_\_\_\_\_  
\_\_\_\_\_

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: 3145, water well: 2730, depth to ground water: 170

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 footages of 5280 represent more than a mile from location. Amended this location for the addition of a well and equipment: Changed well count from 2 to 4; oil tanks from 8 to 12; water tanks from 2 to 4; add 5 gas motors 1 for each well and 1 recirculate tanks bottoms; add 4 pump jacks; 1 fuel tank (propane); 2 VOC combustor and 2 dehydrator units. The Water well Permit #8040 is NE 2730' with static water level 170'. Originally this location was filed as Fee mineral owner, corrected 2/28/2012 by sundry to State Mineral owner for Castor 1-36-11-9-59 and Castor 2-36-11-9-59 associated with this location.

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

Signed: \_\_\_\_\_ Date: 02/28/2013 Email: tina.taylor@crzo.net

Print Name: Tina Taylor Title: Regulatory Compliance

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: 3/30/2013

**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.

### Attachment Check List

Att Doc Num	Name
400385792	FORM 2A SUBMITTED
400387241	LOCATION PICTURES
400387242	REFERENCE AREA PICTURES
400387246	ACCESS ROAD MAP
400387247	CONST. LAYOUT DRAWINGS
400387248	HYDROLOGY MAP
400387249	LOCATION DRAWING
400387250	MULTI-WELL PLAN
400387251	REFERENCE AREA MAP

Total Attach: 9 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	3/27/2013 11:04:50 AM
Permit	State land board ok with location and bond.	3/13/2013 10:22:49 AM
Permit	Notified state land board. Initial review complete. Form 2A and 2's compared.	3/11/2013 12:22:34 PM
OGLA	Changed NRCS units to be identical to the previously approved Form 2A and removed irrelevant NRCS Map Unit Descriptions attachments (see attachments Doc#s 2614034, 2614035 and 400307630 on previously approved Form 2A package); changed the distance to surface water to 3145 feet, consistent with the previously approved Form 2A	3/6/2013 3:33:37 PM
Permit	Ready to pass completeness.	3/5/2013 8:08:41 AM
Permit	Returned to draft at operators request.	2/28/2013 9:57:21 AM

Total: 6 comment(s)

## BMP

<u>Type</u>	<u>Comment</u>
Material Handling and Spill Prevention	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. Operator shall not allow any fluids to flow back to the Fresh Water Storage Pit/Pond.
Storm Water/Erosion Control	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.
Site Specific	<p>Fresh water for the Fresh Water Storage Pit comes from water provider; water sources permitted for consumable industrial use.</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>Operator will participate in the Colorado Oil &amp; Gas Association Voluntary Baseline Groundwater Quality Sampling Program.</p> <p>Operator will implement interim reclamation measures immediately after construction of the location to stabilize cut and fill slopes, stabilize the topsoil and spoil stockpiles, establish desirable vegetation and control weeds on the location.</p>
Construction	The location will be fenced and the fenced area will include the Fresh Water Storage Pit.
Pre-Construction	The COGCC to be notified 48 hours prior to construction of the Fresh Water Storage Pit.
Planning	A Form 15 Pit Report will be submitted within 30 days of construction of the fresh water storage pit.

Total: 6 comment(s)