

**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:

400220878

Oil and Gas Location Assessment☐ New Location ☒ Amend Existing Location Location#: 424596

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:

424596

Expiration Date:

01/05/2015☒ 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) 658-6440

email: tina.taylor@crzo.net

4. Location Identification:

Name: Slick Rock Number: 19-14-7-60

County: WELD

QuarterQuarter: LOT 4 Section: 19 Township: 7N Range: 60W Meridian: 6 Ground Elevation: 5021

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: 17 feet FSL, from North or South section line, and 1243 feet FWL, from East or West section line.

Latitude: 40.553410 Longitude: -104.142450 PDOP Reading: 1.5 Date of Measurement: 11/04/2011

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="2"/>	Wells: <input type="text" value="3"/>	Production Pits: <input type="checkbox"/>	Dehydrator Units: <input type="checkbox"/>
Condensate Tanks: <input type="checkbox"/>	Water Tanks: <input type="text" value="4"/>	Separators: <input type="text" value="2"/>	Electric Motors: <input type="text" value="1"/>	Multi-Well Pits: <input type="checkbox"/>
Gas or Diesel Motors: <input type="text" value="4"/>	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="16"/>	Fuel Tanks: <input type="checkbox"/>	

Other: Freshwater Storage pit, Heater Treater, Separators-one high pressure, one low pressure, Jet pump, Flare until pipeline connection ready. 1 possible VRU

6. Construction:

Date planned to commence construction: 02/01/2012 Size of disturbed area during construction in acres: 7.00
Estimated date that interim reclamation will begin: 08/01/2012 Size of location after interim reclamation in acres: 2.00
Estimated post-construction ground elevation: 5019 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/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 20100170

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: 5280, public road: 5280, above ground utilit: 5280
, railroad: 5280, property line: 17

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: 44 Olney fine sandy loam, 0 to 6 percent slopes

NRCS Map Unit Name: 63 Tassel loamy fine sand, 5 to 20 percent slopes

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, Sand Bluestem, Switchgrass, Needleand thread, Sand Sagebrush, Western Wheatgrass

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 list of individual species 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: 2865, water well: 2940, depth to ground water: 25

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:

Measurements of 5280' are greater than one mile.

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

Signed: _____ Date: 11/29/2011 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: David S. Neslin Director of COGCC Date: 1/6/2012

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
2163878	CORRESPONDENCE
2613877	NRCS MAP UNIT DESC
2613880	REFERENCE AREA PICTURES
2613883	MULTI-WELL PLAN
400220878	FORM 2A SUBMITTED
400227077	MULTI-WELL PLAN
400227078	DEVIATED DRILLING PLAN
400227079	ACCESS ROAD MAP
400227080	CONST. LAYOUT DRAWINGS
400227081	HYDROLOGY MAP
400227082	LOCATION DRAWING
400227083	OTHER
400227084	LOCATION PICTURES
400227085	WELL LOCATION PLAT
400227086	REFERENCE AREA MAP
400227087	REFERENCE AREA PICTURES
400227088	OIL & GAS LEASE
400227113	NRCS MAP UNIT DESC
400227114	NRCS MAP UNIT DESC

Total Attach: 19 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Operator states that the surface owner and Carrizo are in contact and they are aware and support the the location of production facilities as platted. The SUA covers multiple, large pieces of property including both pieces of acreage on either side of the property line which allows for drilling the well at this location.	1/5/2012 8:35:58 AM
Permit	No LGD or public comment received; final review completed.	1/4/2012 11:11:00 AM
Permit	Updated permit with multi-well plan.	1/4/2012 11:10:04 AM
Permit	Operator states that SUA is here but not processed yet. 12/21/2011. Must verify SUA before approving.	12/21/2011 8:09:53 AM
Permit	On hold-Location move on hold waiting for property line exception request letter and waiver. Sundry to relocate the well did not have the necessary property line exception attachments.	12/5/2011 2:25:04 PM
OGLA	Attached a revised Multi-Well Plan from the operator.	12/5/2011 2:07:27 PM
OGLA	Attached revised Reference Area Pictures; Ready to Pass 12/20/2011.	12/1/2011 3:09:42 PM
OGLA	Changed the facilities list to include three wells not four; three wells are shown on the multi-well plan; waiting on revised Reference Area Picutres.	12/1/2011 6:34:16 AM
OGLA	Revised the NRCS Map Unit; Reference Area Pictures contain snow cover - advised the operator to submit new Reference Area Pictures; advised the operator of conflict between multi-well plan and number of wells listed under facilities; waiting on response	11/30/2011 9:08:02 AM
Permit	Operator is moving both bottom hole and surface location. Thais is an amended 2A. Operator will submit a property line waiver.	11/30/2011 5:32:35 AM
Permit	Operator added NRCS map unit attachment. Form has passed completeness.	11/29/2011 8:12:23 AM
Permit	Returned to draft. Missing NRCS soil description.	11/29/2011 7:50:09 AM

Total: 12 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.
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	Fresh water for the Fresh Water Storage Pit comes from water provider; water sources permitted for consumable industrial use.
Material Handling and Spill Prevention	Operator shall not allow any fluids to flow back to the Fresh Water Storage Pit/Pond.
Site Specific	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.
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: 8 comment(s)