

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:

400619495

Date Received:

06/04/2014

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:

**438115**

Expiration Date:

**07/13/2017**

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: 10439  
 Name: CARRIZO NIOBRARA LLC  
 Address: 500 DALLAS STREET #2300  
 City: HOUSTON    State: TX    Zip: 77002

Contact Information

Name: Cynthia Pinel  
 Phone: (713) 358-6210  
 Fax: ( )  
 email: cynthia.pinel@crzo.net

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20120105     Gas Facility Surety ID: \_\_\_\_\_
- Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Ross    Number: 1-2-8-61  
 County: WELD  
 Quarter: 3    Section: 2    Township: 8N    Range: 61W    Meridian: 6    Ground Elevation: 5025

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: 366 feet FNL from North or South section line  
2372 feet FWL from East or West section line

Latitude: 40.697180    Longitude: -104.173150

PDOP Reading: 1.8    Date of Measurement: 05/14/2013

Instrument Operator's Name: MARC WOODARD

## 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:

LOCATION ID # FORM 2A DOC #

## FACILITIES

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

Wells	<u>1</u>	Oil Tanks	<u>3</u>	Condensate Tanks	<u>      </u>	Water Tanks	<u>1</u>	Buried Produced Water Vaults	<u>      </u>
Drilling Pits	<u>      </u>	Production Pits	<u>      </u>	Special Purpose Pits	<u>      </u>	Multi-Well Pits	<u>      </u>	Temporary Large Volume Above Ground Tanks	<u>      </u>
Pump Jacks	<u>1</u>	Separators	<u>2</u>	Injection Pumps	<u>      </u>	Cavity Pumps	<u>      </u>		
Gas or Diesel Motors	<u>1</u>	Electric Motors	<u>      </u>	Electric Generators	<u>      </u>	Fuel Tanks	<u>      </u>	Gas Compressors	<u>      </u>
Dehydrator Units	<u>0</u>	Vapor Recovery Unit	<u>      </u>	VOC Combustor	<u>1</u>	Flare	<u>1</u>	LACT Unit	<u>      </u>
								Pigging Station	<u>      </u>

## OTHER FACILITIES

Other Facility Type

Number

<u>Other Facility Type</u>	<u>Number</u>

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

2 3/8" 8 round pipe. Approximately 800' used for flowlines (oil, water, gas) from the wellhead to the facilities. Pipeline from the facilities to the sales meter will remain unresolved until gas potential of the well(s) is/are determined. We use Sch 80 pipe that is welded together for all flowlines and generally has a capacity of .7 barrels of fluid per 100 feet with the average being 150 – 200' of flowline from the wellhead to the separators.

## CONSTRUCTION

Date planned to commence construction: 12/01/2014 Size of disturbed area during construction in acres: 7.00

Estimated date that interim reclamation will begin: 03/01/2015 Size of location after interim reclamation in acres: 2.00

Estimated post-construction ground elevation: 5022

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H<sub>2</sub>S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? No

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

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Beneficial reuse or land application plan submitted?       

Reuse Facility ID:        or Document Number:       

Centralized E&P Waste Management Facility ID, if applicable:

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Joe A. Ross & Anni M. Ros

Phone: 308-872-2446

Address: 945 S 12th Ave.

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Broken Bow State: NE Zip: 68822

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: Yes

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

Surface damage assurance if no agreement is in place: Blanket Surface Surety ID: 20120106

Date of Rule 306 surface owner consultation \_\_\_\_\_

## 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: 2630 Feet  
Building Unit: 2630 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 5280 Feet  
Above Ground Utility: 2990 Feet  
Railroad: 5280 Feet  
Property Line: 289 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: NRCS 44\_Olney Fine Sandy Loam, 0 to 6 percent slopes

NRCS Map Unit Name: NRCS 45\_Olney Fine Sandy Loam, 6 to 9 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: 3450 Feet

water well: 2740 Feet

Estimated depth to ground water at Oil and Gas Location 280 Feet

Basis for depth to groundwater and sensitive area determination:

basis for determination done by our surveyor at on 5/14/2014.  
Location is within the Upper Crow Creek Designated Groundwater Basin

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 609

## 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

Swell packer will be set beyond 300' from the section line to keep wellbore from 7" casing unproduced.

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

Signed: \_\_\_\_\_ Date: 06/04/2014 Email: [cynthia.pinel@crzo.net](mailto:cynthia.pinel@crzo.net)

Print Name: Cynthia Pinel Title: Regulatory Comp. 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: 7/14/2014

### **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.**

#### **COA Type**

#### **Description**

<b><u>COA Type</u></b>	<b><u>Description</u></b>

### **Best Management Practices**

#### **No BMP/COA Type**

#### **Description**

1	Pre-Construction	The COGCC to be notified 48 hours prior to construction of the Fresh Water Storage Pit. A Form 15 Pit Report will be submitted within 30 days of construction of the fresh water storage pit.
2	Storm Water/Erosion Control	Operator has designed the well pad with in-sloping 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.
3	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.
4	Construction	The location will be fenced and the fenced area will include the Fresh Water Storage Pit.
5	Drilling/Completion Operations	Fresh water for the Fresh Water Storage Pit comes from water provider; water sources permitted for consumable industrial use. ? 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. ? 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. ? Daily walk around inspection of location will be done by Wellsite Supervisor.

Total: 5 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668363	CORRESPONDENCE
2157725	CONST. LAYOUT DRAWINGS
400619495	FORM 2A SUBMITTED
400619527	NRCS MAP UNIT DESC
400619529	NRCS MAP UNIT DESC
400619530	ACCESS ROAD MAP
400619531	HYDROLOGY MAP
400619534	LOCATION DRAWING
400619535	LOCATION PICTURES
400619536	REFERENCE AREA MAP
400619537	REFERENCE AREA PICTURES

Total Attach: 11 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Corrected information on the form 2 for distance to nerarest wellbore as per Opr. Final review complete.	7/2/2014 11:27:44 AM
OGLA	No Public Comments. OGLA task passed.	6/26/2014 8:05:14 AM
Permit	Ready to pass pending public comment.	6/25/2014 1:20:03 PM
OGLA	IN PROCESS - Operator confirmed that they will use the State 16-11-9-60H Pit and their Engineers have indicated they can use lay flat hoses to transfer the water because the Vawter surface owner is "giving them a difficult time using the Vawter 11-41-8-61 Pit". Operator has also indicated they have access to cross the different properties to get to the oil and gas location. Operator also provided a revised interim reclamtion date and agreed to the Sensitive Area change. OGLA review complete. Waiting on Public Comment period.	6/18/2014 8:06:52 AM
OGLA	Operator indicated they would not use a pit onsite but the State 16-11-9-60H Pit (Loc ID #424690). However, this pit is over 5 miles away. Why that pit when Carrizo has a nearby pit (Vawter 11-41-8-61 Pit) to the south. Also, still wanting to hear if all propery owners the the Access Road will cross have at least been contacted and made aware of operators proposed route.	6/17/2014 8:30:38 AM
OGLA	ON HOLD - Add freshwater pit to Facilities list, revise the interim reclamation begin date, change Sensitive Area designation, and are signed SUAs for properties in place the properties the Access Road will cross. Due by 7/12/14.	6/12/2014 2:17:03 PM
Permit	Oper. submitted revised const. layout drawing.	5/9/2014 4:00:10 PM
Permit	Passed completeness.	6/5/2014 11:19:20 AM

Total: 8 comment(s)