

FORM  
2

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:

400574264

Date Received:

03/21/2014

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: Hemberger

Well Number: 4-26-8-60

Name of Operator: CARRIZO NIOBRARA LLC

COGCC Operator Number: 10439

Address: 500 DALLAS STREET #2300

City: HOUSTON

State: TX

Zip: 77002

Contact Name: Cynthia Pinel

Phone: (713)358-6210

Fax: ( )

Email: cynthia.pinel@crzo.net

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120105

WELL LOCATION INFORMATION

QtrQtr: SESE Sec: 26 Twp: 8N Rng: 60W Meridian: 6

Latitude: 40.627330

Longitude: -104.051070

Footage at Surface: 434 feet FNL/FSL FSL 456 feet FEL/FWL FEL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 4877

County: WELD

GPS Data:

Date of Measurement: 03/07/2014 PDOP Reading: 1.9 Instrument Operator's Name: ERIC PURCELL

If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL

600 FSL 1410 FEL 600 FNL 1410 FEL  
Sec: 26 Twp: 8N Rng: 60W Sec: 26 Twp: 8N Rng: 60W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: ☐ is the mineral owner beneath the location.  
(check all that apply) ☐ 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 by this Well: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

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

## LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Township 8 North, Range 60W of the 6th P.M., Section 26: E2 (HBP)

Total Acres in Described Lease: 320 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 600 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 4854 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 434 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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: \_\_\_\_\_

## SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 376 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 600 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

15 horizontal wells within an approximate 640-acre drilling and spacing unit established for Section 26, Township 8 North, Range 60 West, 6th P.M.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR	535-438	640	SECTION 26: ALL

## DRILLING PROGRAM

Proposed Total Measured Depth: 10817 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 376 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

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

Will oil based drilling fluids be used? No

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted?

Reuse Facility ID:  or Document Number:

## CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	18	16	65	0	77	8	77	0
SURF	12+1/4	9+5/8	36	0	1400	534	1400	0
1ST	8+3/4	7	23	0	6508	590	6508	
1ST LINER	6+1/8	4+1/2	11.6	5679	10817			

☐ Conductor Casing is NOT planned

## 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)

## GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 318A.a. Exception Location (GWA Windows).
- ☐ Rule 318A.c. Exception Location (GWA Twinning).

## RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number

## OTHER LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_
- ☐ Rule 603.a.(2) Exception Location (Property Line Setback).

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

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 436809

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: \_\_\_\_\_ Print Name: Cynthia Pinel

Title: Regulatory Comp. Analyst Date: 3/21/2014 Email: cynthia.pinel@crzo.net

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: 4/24/2014

Expiration Date: 04/23/2016

**API NUMBER**

05 123 39331 00

## Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

### COA Type

### Description

	<p>Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage on one of the remaining three wells to be drilled on this pad: the proposed #4 Hemberger on this permit, the #5 Hemberger, API 123-39277, or the #6 Hemberger, API 123-39278</p> <p>The Drilling Completion Report - Form 5 - for every well on the pad shall identify which well was logged.</p>
	<p>1) Provide 48 hour notice prior to spud via electronic Form 42.</p> <p>2) Provide cement coverage to a minimum of 200' above Niobrara. Verify coverage with cement bond log.</p> <p>3) Run and submit Directional Survey from TD to base of surface casing. Ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.</p>
	<p>Operator acknowledges the proximity of the following offset well(s) of concern:</p> <p>123-09617, DUELL 25-1, 123-05496, DUELL B 1, 123-09031, DUELL 1-26, 123-09264, DUELL ET AL 1-26, 123-13758, FRANK AND JOHN DUELL ET AL #1-A.</p> <p>Operator agrees to: comply with the DJ Basin Horizontal Offset Policy to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit Form 42(s) ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API Number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p>

### **Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Planning	A Form 15 Pit Report will be submitted 30 days prior to construction for the freshwater storage pit. A survey of the location and revision to the existing pit size is in the process of being drawn.
2	Storm Water/Erosion Control	Operator has designed the well pad with insloping and a storm water control ditch to prevent storm water run-on/run-off 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 construction location will be fenced.
5	Drilling/Completion Operations	Fresh water for the Fresh Water Storage Pit comes from water provider; water sources permitted for consumable industrial use. Freshwater 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. An Open Hole Resistivity log will be provided for one well on this pad, preferably the number 6 well.

Total: 5 comment(s)

### **Applicable Policies and Notices to Operators**

Notice Concerning Operating Requirements for Wildlife Protection.

### **Attachment Check List**

<b>Att Doc Num</b>	<b>Name</b>
2157609	WELL LOCATION PLAT
2157610	DEVIATED DRILLING PLAN
2157647	SURFACE AGRMT/SURETY
400574264	FORM 2 SUBMITTED
400574478	CONST. LAYOUT DRAWINGS
400585109	DIRECTIONAL DATA
400592679	OffsetWellEvaluations Data

Total Attach: 7 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Off hold: operator submitted revised offset well evaluation and corrected dist. to nearest well to 376'. Location now legal. Oper. submitted SUA; surface bond deleted. No LGD or public comments. Final Review--passed.	4/21/2014 1:27:41 PM
Permit	On hold: requires exception location request.	4/15/2014 2:38:58 PM
Engineer	Existing wells w/in 1500': 123-14414, FEDERAL J 15-23, PA, (Missing from Offset Well Evaluation but Noble P&A'd on 8/9/13, F6S approved 12/23/13). Meets standard. 123-09617, DUELL 25-1, DA, (Missing from Offset Well Evaluation but Carrizo has approved F6N.) 123-05496, DUELL B 1, PA, (Offset Well Evaluation says Carrizo will re-enter and plug this well prior to fracing operations. Carrizo has approved F6N.) 123-09031, DUELL 1-26, PA, (Missing from Offset Well Evaluation but Carrizo has approved F6N.) 123-09264, DUELL ET AL 1-26, DA, (Offset Well Evaluation says Carrizo will re-enter and plug this well prior to fracing operations. Carrizo has approved F6N.) 123-13758, FRANK AND JOHN DUELL ET AL #1-A, DA, (Offset Well Evaluation says Carrizo will re-enter and plug this well prior to fracing operations. No F6N in process yet.) 123-34430, Hemberger 1-26-34-8-60, PR, (Offset Well Evaluation says Carrizo will monitor this well during fracing operations.) Meets standard. 123-35812, Hemberger 2-26-34-8-60, PR, (Offset Well Evaluation says Carrizo will monitor this well during fracing operations.) Meets standard. 123-35814, Hemberger 3-26-34-8-60, PR, (Offset Well Evaluation says Carrizo will monitor this well during fracing operations.) Meets standard.	4/10/2014 3:29:08 PM
Permit	Distance to nearest completed well <300' at TOP? Disagree w/ distances on offset well eval.	4/8/2014 10:37:56 AM
Permit	Oper. submitted revised well loc. plat, Xcel template, & dev. drlg. plan. Corrected TOP and BHL footages per plat: now legal location. Corrected dist. to lease. Oper. submitted wellbore integrity contact.	4/7/2014 11:34:44 AM
Permit	If distance to nearest well completed in NBRR is 149', then exception request to Spacing Order required. Distance to unit boundary violates spacing order. Corrected dist. to lease line.	4/2/2014 2:55:10 PM
Permit	Passed completeness.	3/24/2014 9:17:55 AM
Permit	Not in the GWA. 318m does not apply.	3/24/2014 9:16:46 AM
Permit	Returned to draft; Missing Rule 318m letter/waiver	3/24/2014 6:10:26 AM

Total: 9 comment(s)