

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:

400578460

Date Received:

03/31/2014

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER _____

Refiling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: HEMBERGER

Well Number: 5-25-8-60

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: SWSW Sec: 25 Twp: 8N Rng: 60W Meridian: 6

Latitude: 40.627230

Longitude: -104.046360

Footage at Surface: 387 feet FNL/FSL FSL 851 feet FEL/FWL FWL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 4909

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 FSL 300 FSL 1200 FWL 600 FNL 1200 FWL
Sec: 25 Twp: 8N Rng: 60W Sec: 25 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 25: S1/2, NW1/4 (HBP)

Total Acres in Described Lease: 480 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: 300 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: 4895 Feet

Above Ground Utility: 5201 Feet

Railroad: 5280 Feet

Property Line: 387 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: 300 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 300 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

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	535-458	640	S. 25: ALL

DRILLING PROGRAM

Proposed Total Measured Depth: 10697 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 230 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H₂S 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	6445	575	6445	
1ST LINER	6+1/8	4+1/2	11.6	5713	10697			

☐ 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: _____

Is this application being submitted with an Oil and Gas Location Assessment application? _____ Yes

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: 3/31/2014 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: 5/15/2014

Expiration Date: 05/14/2016

API NUMBER

05 123 39440 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.

<u>COA Type</u>	<u>Description</u>
	<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>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 a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged.</p>
	<p>Operator acknowledges the proximity of the following offset well(s) of concern: 05-123-05492, H H DUELL B 2, DA, Crzo F6N in process. 05-123-05505, DUELL 3, DA, Crzo F6N in process. 05-123-09617, DUELL 25-1, DA, Crzo F6N approved. 05-123-11022, DUELL 4 B I, PA, No Crzo F6 yet, OWE says Carrizo will re-enter/plug prior to fracing. 05-123-11222, DUELL 5C, PA, Crzo F6N in process. 05-123-13563, DUELL 2-BR, PA, Crzo F6N in process. 05-123-09031, DUELL 1-26, PA, Crzo F6N approved. 05-123-09264, DUELL ET AL 1-26,DA, Crzo F6N approved. 05-123-05477, STATE 1, DA, No Crzo F6N yet, Not on OWE's, No isolation.</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

No	BMP/COA Type	Description
1	Planning	A Form 15 Pit Report will be submitted 30 days prior to construction of the freshwater storage pit. A survey of the location and revision to the existing pit size in the process of being drawing.
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 4 well.

Total: 5 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
2090493	OFFSET WELL EVALUATION
2157654	SURFACE AGRMT/SURETY
400578460	FORM 2 SUBMITTED
400580992	CONST. LAYOUT DRAWINGS
400580996	DIRECTIONAL DATA
400590139	DEVIATED DRILLING PLAN
400590140	WELL LOCATION PLAT

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	No LGD or public comments. Final Review--passed.	5/7/2014 7:36:15 AM
Permit	Oper. submitted SUA. Deleted surface bond. Corrected dist. to lease line.	4/29/2014 3:11:14 PM
Engineer	Operator sent new OWE adding 05-123-05477 STATE 1, indicating Carrizo will re-enter and plug this well prior to fracing operations.	4/29/2014 12:56:53 PM
Engineer	Some of the wells in COGCC 1500' buffers are not listed on Offset Well Evaluations. One well did not get listed on any well evaluation nor is there a Form 6N in the system yet: 05-123-05477, STATE 1. Emailed operator rep: CYNTHIA.PINEL@CRZO.NET, 4/21/14	4/21/2014 1:33:16 PM
Permit	Form passes completeness.	4/16/2014 1:13:01 PM
Permit	Returned to DRAFT. The lat/longs on the form don't match the surveyor information on the Well location plat, the footages for the BHL don't match the Well Location plat.	4/10/2014 6:34:14 AM
Permit	Returned to draft at oper.'s request.	4/3/2014 10:54:11 AM
Permit	Corrected dist. to lease line. Dist. to unit on north violates spacing order. Corrected SHL footages, lat/long, and TOP footages to agree w/ plat.	4/2/2014 3:32:43 PM
Permit	Opr corrected and distance is zero. Form passes completeness.	4/2/2014 11:32:14 AM
Permit	Distance to nearest lease line is missing. Form back to draft.	4/1/2014 7:08:32 AM

Total: 10 comment(s)