

FORM

2

Rev  
12/05

## 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:

400386078

Date Received:

02/28/2013

PluggingBond SuretyID

20100108

## APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

## 2. TYPE OF WELL

OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_  
 SINGLE ZONE ☒ MULTIPLE ☐ COMMINGLE ☐

Refiling ☐Sidetrack ☐

3. Name of Operator: CARRIZO OIL &amp; GAS INC

4. COGCC Operator Number: 10338

5. Address: 500 DALLAS STREET #2300

City: HOUSTON State: TX Zip: 77002

6. Contact Name: Tina Taylor Phone: (713)328-1000 Fax: (713)328-1060

Email: tina.taylor@crzo.net

7. Well Name: Castor Well Number: 4-36-11-9-59

8. Unit Name (if appl): Unit Number:

9. Proposed Total Measured Depth: 9966

## WELL LOCATION INFORMATION

10. QtrQtr: NWNW Sec: 36 Twp: 9N Rng: 59W Meridian: 6

Latitude: 40.712160 Longitude: -103.930850

Footage at Surface: 820 feet FNL/FSL 1270 feet FEL/FWL  
 FNL FWL

11. Field Name: Wildcat Field Number: 99999

12. Ground Elevation: 4889 13. County: WELD

## 14. GPS Data:

Date of Measurement: 02/28/2013 PDOP Reading: 1.7 Instrument Operator's Name: Mark Woodard

15. 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  
 1310 FNL 2524 FWL 650 FSL 2600 FWL  
 Sec: 36 Twp: 9N Rng: 59W Sec: 36 Twp: 9N Rng: 59W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 950 ft

18. Distance to nearest property line: 820 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 650 ft

## 20. LEASE, SPACING AND POOLING INFORMATION

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
Niobrara	NBRR	535-217	640	ALL

21. Mineral Ownership: ☐ Fee ☒ State ☐ Federal ☐ Indian Lease #: 9821.822. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian23. Is the Surface Owner also the Mineral Owner? ☐ Yes ☒ No Surface Surety ID#: 2010017023a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☐ Yes ☐ No23b. If 23 is No: ☐ Surface Owners Agreement Attached or ☒ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

Township 9North, Range 59W of the 6th P.M., Section 36: N2

25. Distance to Nearest Mineral Lease Line: 0 ft

26. Total Acres in Lease: 320

### DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☐ Yes ☒ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☒ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☐ Land Spreading ☒ Disposal Facility Other: \_\_\_\_\_

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	12+1/4	9+5/8	36	0	1,400	534	1,400	0
1ST	8+3/4	7	23	0	6,245	661	6,245	1,400
1ST LINER	6+1/4	4+1/2	11.6	5463	9,966			

32. BOP Equipment Type: ☒ Annular Preventer ☒ Double Ram ☒ Rotating Head ☐ None

33. Comments No conductor casing will be set. Swell Packer will be set across 600' from section line to keep wellbore from 7" casing shoe to Swell Packer unproduced.

34. Location ID: 427480

35. Is this application in a Comprehensive Drilling Plan? ☐ Yes ☐ No

36. Is this application part of submitted Oil and Gas Location Assessment? ☒ Yes ☐ No

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

Signed: \_\_\_\_\_ Print Name: Tina Taylor

Title: Regulatory Compliance Date: 2/28/2013 Email: tina.taylor@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: Matthew Lee Director of COGCC Date: 3/30/2013

#### API NUMBER

05 123 37074 00

Permit Number: \_\_\_\_\_ Expiration Date: 3/29/2015

#### CONDITIONS OF APPROVAL, IF ANY:

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.

- 1) Provide 48 hour notice prior to spud via electronic Form 42.
- 2) Provide cement coverage of intermediate casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 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.

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

Notice Concerning Operating Requirements for Wildlife Protection.

### **Attachment Check List**

Att Doc Num	Name
2486023	SURFACE CASING CHECK
400386078	FORM 2 SUBMITTED
400387233	DIRECTIONAL DATA
400387234	DEVIATED DRILLING PLAN
400387235	WELL LOCATION PLAT

Total Attach: 5 Files

### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Per operator corrected TOP. Final Review Completed. No LGD or public comment received.	3/27/2013 11:02:18 AM
Permit	Requested footages for TOP.	3/27/2013 6:23:36 AM
Engineer	Evaluated any existing wells within 500' of proposed directional.	3/13/2013 4:56:16 PM
Permit	State land board ok with location and bond.	3/13/2013 10:24:11 AM
Permit	Initial review complete. Notified state land board.	3/11/2013 12:40:32 PM
Permit	Horizontal wellbore crosses lease lines within drilling and spacing unit; distance to lease line is 0'; distance to unit boundary is 650'.	3/11/2013 12:40:31 PM
Permit	Operator made correction. This form has passed completeness.	3/5/2013 8:31:47 AM
Permit	Returned to draft. Missing surface bond ID# line 22b.	3/5/2013 8:16:55 AM
Permit	Returned to draft at operators request.	2/28/2013 9:55:49 AM

Total: 9 comment(s)

## **BMP**

<b><u>Type</u></b>	<b><u>Comment</u></b>
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)