

APPLICATION FOR PERMIT TO:

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

2. TYPE OF WELL

OIL GAS COALBED OTHER Horizontal
SINGLE ZONE MULTIPLE COMMINGLE

Refiling
Sidetrack

PluggingBond SuretyID
20100108

3. Name of Operator: CARRIZO OIL & 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: WEP Well Number: 1-20-11-3-64

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

9. Proposed Total Measured Depth: 11453

WELL LOCATION INFORMATION

10. QtrQtr: NWNW Sec: 20 Twp: 3S Rng: 64W Meridian: 6
Latitude: 39.782290 Longitude: -104.579080

Footage at Surface: 267 feet FNL 1215 feet FWL

11. Field Name: Wildcat Field Number: 99999

12. Ground Elevation: 5424 13. County: ADAMS

14. GPS Data:

Date of Measurement: 05/17/2012 PDOP Reading: 2.6 Instrument Operator's Name: Dave Murrey

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
650 FSL 650 FWL 650 FNL 650 FWL
Sec: 17 Twp: 3S Rng: 64W Sec: 17 Twp: 3S Rng: 64W

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: 240 ft

18. Distance to nearest property line: 267 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 1200 ft

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	535-172	640	Sec. 17

21. Mineral Ownership: Fee State Federal Indian Lease #: _____

22. Surface Ownership: Fee State Federal Indian

23. Is the Surface Owner also the Mineral Owner? Yes No Surface Surety ID#: _____

23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? Yes No

23b. 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 3 South, Range 64 West: Section 17: SW/4 except portion lying within existing county roads. Drilling & Spacing Application Hearing is scheduled for July 9th 2012.

25. Distance to Nearest Mineral Lease Line: 0 ft 26. Total Acres in Lease: 132

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	1,800	534	1,800	0
1ST	8+3/4	7+0/0	23	0	7,611	747	7,611	1,400
1ST LINER	6+1/4	4+1/2	11.6	0	11,453	389	11,453	6,600

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

33. Comments No conductor casing will be set. Spacing application filed for July hearing.

34. Location ID: _____

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: 6/7/2012 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: 11/15/2012

API NUMBER Permit Number: _____ Expiration Date: 9/17/2014

API NUMBER
05 001 09757 01

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.

This well comes within 284 feet of a plugged and abandoned well. The casing and plugging of the P&A well will be reviewed in order to determine its quality and the effect of a nearby frac job on the P&A well.

The 7" casing shoe is not the top of production zone. However, to prevent from stimulating the illegal bore from the 7" casing shoe to the 600' setback, we will set a swell packer on the 4.5" liner at the planned 650' that will isolate the illegal bore. Per operator 5/31/2012

- 1) Note surface casing setting depth change from 1400' to 1800'. Increase cement coverage accordingly.
- 2) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.
- 3) Comply with Rule 317.i and provide cement coverage from TVD to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 4) Run and submit Directional Survey from TD to base of surface casing. The operator shall comply with Rule 321, and it shall be the operator's responsibility to ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.

Attached COGCC Policies and Notice to Operator

No	Policy
1	Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
1792516	CORRESPONDENCE
2532528	SURFACE AGRMT/SURETY
400293215	APD APPROVED
400293221	SURFACE AGRMT/SURETY
400293222	MULTI-WELL PLAN
400293223	DEVIATED DRILLING PLAN
400293224	WELL LOCATION PLAT
400293228	DIRECTIONAL DATA
400327858	FORM 2 SUBMITTED

Total Attach: 9 Files

General Comments

User Group	Comment	Comment Date
Permit	Final review completed.	9/18/2012 5:50:11 AM
Permit	My calculations for the TOP is 483 FSL not 650 FSL as stated. Emailed Tina with concerns, see COA from Larry Coler concerning this distance and the solution by Operator of positioning a swell packer.	8/13/2012 9:01:20 AM
Permit	On hold - Need clarification that the top production point is 600 feet or more from the unit boundary.	6/25/2012 6:19:44 AM
Permit	This is the lateral of a pilot/lateral drilling plan and this permit should have a sidetrack designation in the API number.	6/25/2012 5:57:30 AM
LGD	<p>The applicant has agreed to the following best management practices:</p> <ol style="list-style-type: none"> 1. Use closed looped systems; and 2. Undertake a water quality sampling program (within a 1-mile radius from the wells), including City owned wells that serve Front Range Airport. <p>Since the applicant has agreed to these best management practices, would you please attach them as conditions to the permit?</p>	6/15/2012 11:24:46 AM
Permit	On hold - Pending July hearing.	3/8/2012 1:47:35 PM
Permit	This section is not spaced. Will Carrizo space this section in the near future?	3/8/2012 6:39:03 AM
Permit	Surface Use Agreement submitted? Should they be bonding on?	3/8/2012 6:37:50 AM
Permit	Distance to lease line is 0 feet. Horizontal well crosses lease line.	3/8/2012 6:37:14 AM
Permit	Changed distance to another well completed in the same formation to 1300 feet to reflect the distance to proposed lateral wellbores being drilled from the same pad.	3/8/2012 6:35:47 AM
LGD	This appears to be the City of Aurora Jurisdiction. Please refer to them.	3/8/2012 6:23:01 AM
Permit	pilot hole is shown on Deviated Drilling Plan.	3/7/2012 1:47:32 PM
Permit	Returned to draft. No pilot hole shown on Deviated Drilling Plan.	6/7/2012 12:01:34 PM

Total: 13 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)