

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:

400261893

Date Received:

03/19/2012

PluggingBond SuretyID

20100017

APPLICATION FOR PERMIT TO:

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

2. TYPE OF WELL

OIL ☐ GAS ☐ COALBED ☐ OTHER Oil & Gas  
SINGLE ZONE ☐ MULTIPLE ☒ COMMINGLE ☒

Refiling ☒

Sidetrack ☐

3. Name of Operator: ENCANA OIL & GAS (USA) INC

4. COGCC Operator Number: 100185

5. Address: 370 17TH ST STE 1700

City: DENVER State: CO Zip: 80202-5632

6. Contact Name: Erin Hochstetler Phone: (720)876-5827 Fax: ()

Email: erin.hochstetler@encana.com

7. Well Name: COSTIGAN Well Number: 23-20

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

9. Proposed Total Measured Depth: 8464

WELL LOCATION INFORMATION

10. QtrQtr: NWSW Sec: 20 Twp: 1N Rng: 68W Meridian: 6

Latitude: 40.033720 Longitude: -105.033500

Footage at Surface: 1625 feet FSL 1008 feet FWL

11. Field Name: WATTENBERG Field Number: 90750

12. Ground Elevation: 5088 13. County: WELD

14. GPS Data:

Date of Measurement: 02/01/2010 PDOP Reading: 1.0 Instrument Operator's Name: CRAIG BURKE

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  
1975 FSL 1980 FWL 1975 FSL 1980 FWL  
Sec: 20 Twp: 1N Rng: 68W Sec: 20 Twp: 1N Rng: 68W

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: 601 ft

18. Distance to nearest property line: 310 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 1066 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.)
CODELL	CODL	407	320	S/2
J SAND	JSND	232-23	320	S/2
NIOBRARA	NBRR	407	320	S/2

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):

N2SW SEC. 20-T1N-68W

25. Distance to Nearest Mineral Lease Line: 660 ft

26. Total Acres in Lease: 80

### 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	8+5/8	24	0	900	390	900	0
1ST	7+7/8	4+1/2	11.6	0	8,464	300	8,464	7,256

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

33. Comments NO CONDUCTOR CASING WILL BE USED. THIS WELL HAS NOT BEEN DRILLED YET. EVERYTHING ON THE CURRENT FORM 2A IS RELEVANT AND WILL NOT CHANGE.

34. Location ID: 335767

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: Erin Hochstetler

Title: Permitting Technician Date: 3/19/2012 Email: erin.hochstetler@encana.com

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: 5/2/2012

#### API NUMBER

05 123 31520 00

Permit Number: \_\_\_\_\_ Expiration Date: 5/1/2014

#### 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.

Operator must meet water well testing requirements per Rule 318A.

1. Operator shall utilize pitless (closed loop) drilling.
2. Flowback and stimulation fluids shall be managed in tanks.
3. Operator shall utilize green completion practices as described in Rule 805.b.(3).

- 1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.
- 2) Comply with Rule 317.i and provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 3) Comply with Rule 321. 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.

### **Attachment Check List**

Att Doc Num	Name
400261893	FORM 2 SUBMITTED
400261908	DEVIATED DRILLING PLAN
400261912	WELL LOCATION PLAT
400261913	TOPO MAP
400261914	30 DAY NOTICE LETTER
400261915	SURFACE AGRMT/SURETY
400261916	LEASE MAP
400261919	DIRECTIONAL DATA

Total Attach: 8 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Final Review Completed. LGD comment addressed (see COA's added); no public comment received.	5/2/2012 11:57:07 AM
Permit	ON HOLD: w/o operator's acknowledgement of following proposed COA's. 1.Operator shall utilize pitless (closed loop) drilling. 2.Flowback and stimulation fluids shall be managed in tanks. 3.Operator shall utilize green completion practices as described in Rule 805.b.(3).	4/27/2012 2:59:37 PM
Agency	message to operator re: pitless & BMPs. conversation with Erie LGD re: area of authority, process of refile, BMPs	4/10/2012 3:57:19 PM
Permit	ON HOLD: w/o for the operator and COGCC to address the LGD comments. Removed spacing order numbers as wells are under Rule 318A GWA.	4/9/2012 3:28:56 PM
LGD	<p>1. Operator shall utilize pitless, entirely closed loop systems for drilling, completion and re-completion operations.</p> <p>2. Operator shall utilize high-low pressure vessels (HLP's) for separating produced gases and liquids.</p> <p>3. Operator shall outfit all condensate tanks, crude oil tanks and produced water tanks that are capable of emitting volatile organic compounds with Vapor Recovery Units (VRU's) capable of achieving 100% control efficiency of VOC's.</p> <p>4. Operator shall utilize steel rimmed berms around tanks and separators.Steel berms shall be painted to match the adjacent tanks.</p> <p>5. Operator shall utilize light shielding/shrouding techniques to reduce light pollution impacts on adjacent residential areas.</p> <p>6. Operator shall utilize sound mitigation techniques to reduce sound pollution on adjacent residential areas.</p> <p>7. Operator shall obtain Right-of-Way Permit(s) and a Grading and Stormwater Permit(s) from the Town of Erie prior to commencement of site work.</p>	4/3/2012 9:54:36 AM
Permit	Okay to pass pending public comment 4/08/12.	3/26/2012 10:07:49 AM

Total: 6 comment(s)

**BMP**

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

Total: 0 comment(s)