

FORM
2

Rev
12/05

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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Document Number:

400237362

PluggingBond SuretyID

APPLICATION FOR PERMIT TO:

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

2. TYPE OF WELL

OIL ☐ GAS ☒ COALBED ☐ OTHER _____
SINGLE ZONE ☒ MULTIPLE ☐ COMMINGLE ☐

Refilling ☐

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: Heather Mitchell Phone: (720)876-3070 Fax: ()

Email: heather.mitchell@encana.com

7. Well Name: HC Well Number: DHS3C-34H346102

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

9. Proposed Total Measured Depth: 7851

WELL LOCATION INFORMATION

10. QtrQtr: SENE Sec: 34 Twp: 6S Rng: 102W Meridian: 6

Latitude: 39.498183 Longitude: -108.747675

Footage at Surface: 2100 feet FNL 1024 feet FEL

11. Field Name: Calf Canyon Field Number: 9670

12. Ground Elevation: 5808.2 13. County: GARFIELD

14. GPS Data:

Date of Measurement: 11/22/2011 PDOP Reading: 1.0 Instrument Operator's Name: Brian Baker

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
2105 FNL 1938 FEL 677 FSL 1894 FEL
Sec: 34 Twp: 6S Rng: 102 Sec: 34 Twp: 6S Rng: 102
W W

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: 800 ft

18. Distance to nearest property line: 559 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 1309 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.)
Mancos	MNCS			

21. Mineral Ownership: ☐ Fee ☐ State ☒ Federal ☐ Indian Lease #: COC10146

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):

COC-010146 T6S, R102W, Section 26: S/2SW, W/2SE, N/2SW Section 27: SW, W/2SE, SESE, NESE Section 28: N/2, N/2S/2, S/2SW Section 34: NE, W/2, W/2SE Section 35: NWNE, N/2NW, SWNW, S/2SW, W/2SE, COC01

25. Distance to Nearest Mineral Lease Line: 677 ft

26. Total Acres in Lease: 2000

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: Recycle and bury

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
CONDUCTOR	30	20	line pipe	0	120	319	120	0
SURF	14+3/4	10+3/4	40.5	0	1,800	785	1,800	0
2ND	9+7/8	7+5/8	26.4	0	3,569	219	3,569	1,600
3RD	6+1/8	4+1/2	11.6	0	7,851	13	3,519	3,319

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

33. Comments The answer to question 17 is reference to the nearest building. BLM owns surface and the minerals. Conductor and surface casing cement will be run to surface. 2nd string will be cemented to 200' above surface casing shoe. 3rd string will be cemented into the 2nd string. 3rd string is a tapered string 5 1/2 to 4 1/2. Production casing is designed for an open hole packers type completion. Hydraulic set packers will be spaced 200-300' apart throughout the pay interval that will be activated with pressure from surface. Above the packers in the well will be a casing packer/pack valve system at 3519' in this well. Production cement will be pumped through the pack valve tool to cement 200' ft into the intermediate casing. This cement, along with the casing packer and open hole packers, will create isolation from the production section.

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: Heather Mitchell

Title: Regulatory Analyst

Date: 1/12/2012

Email: heather.mitchell@encana.com

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: _____

David S. Nesline

Director of COGCC

Date: 2/10/2012

API NUMBER

05 045 21328 00

Permit Number: _____ Expiration Date: 2/9/2014

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.

1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED.

2) GARFIELD COUNTY RULISON FIELD NOTICE TO OPERATORS. NOTE: ALL NOTICES SHALL BE GIVEN VIA E-MAIL. SEE ATTACHED NOTICE

3) PROVIDE CEMENT COVERAGE FROM THE INTERMEDIATE CASING SHOE TO A MINIMUM OF 200' ABOVE NIOBRARA [OR OTHER SHALLOWEST-KNOWN PRODUCING HORIZON]. VERIFY CEMENT WITH A CEMENT BOND LOG.

4) THE PROPOSED SURFACE CASING IS MORE THAN 50' BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1 MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1 MILE IS 200 FEET DEEP.

Attachment Check List

Att Doc Num	Name
2537755	FED. DRILLING PERMIT
400237362	FORM 2 SUBMITTED
400240341	WELL LOCATION PLAT
400240345	DEVIATED DRILLING PLAN
400240347	DIRECTIONAL DATA

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	LGD/public comments waived. Final Comprehensive Review Status--passed.	2/6/2012 9:45:49 AM
LGD	Pass	1/17/2012 11:42:40 AM
Permit	ready to approve in permitting.	1/13/2012 11:03:05 AM
Permit	Designated agent submitted the form and corrected the field number, 22a, and the conductor information. This form has passed completeness.	1/12/2012 3:13:39 PM
Permit	Erin Hochstetler is not a registered agent. Missing field number, 22a, conductor casing information.	1/12/2012 2:40:54 PM

Total: 5 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Construction	<ul style="list-style-type: none">• Use solar panels as an alternative energy source for on-location production equipment, where appropriate, economically and technically feasible.• Use multiple gathering lines placed in a single trench to minimize disturbance and construction, where appropriate, economically and technically feasible.• Install pipeline crossings at right angles to the drainages, wetlands, and perennial water bodies, where appropriate, economically and technically feasible.
Wildlife	<ul style="list-style-type: none">• Prohibit Encana employees and contractors from carrying projectile weapons on Encana leases.• Prohibit pets on Encana leases.• Strategically apply fugitive dust control measures, including enforcing established speed limits on Encana private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.• Use enclosed, locking garbage receptacles or implement a strict daily trash removal regime on each temporary or permanent work location.

Total: 2 comment(s)