

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:

400458049

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER _____

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

08/15/2013

Well Name: HMU Federal

Well Number: 23-11C (C26W)

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

COGCC Operator Number: 100185

Address: 370 17TH ST STE 1700

City: DENVER

State: CO

Zip: 80202-5632

Contact Name: Alexis Bidgood

Phone: (720)876-3074

Fax: ()

Email: Alexis.Bidgood@encana.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: _____

WELL LOCATION INFORMATION

QtrQtr: NENW Sec: 26 Twp: 7S Rng: 93W Meridian: 6

Latitude: 39.424055

Longitude: -107.744708

Footage at Surface: 51 feet FNL/FSL FNL 1808 feet FEL/FWL FWL

Field Name: Mamm Creek

Field Number: 52500

Ground Elevation: 7048

County: GARFIELD

GPS Data:

Date of Measurement: 07/03/2012 PDOP Reading: 1.7 Instrument Operator's Name: Ted T. Taggart

If well is ☒ Directional ☐ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FNL/FWL Bottom Hole: FNL/FSL FEL/FWL
1907 FSL 1929 FWL 1907 FSL 1929 FWL
Sec: 23 Twp: 7S Rng: 93W Sec: 23 Twp: 7S Rng: 93W

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: oil and gas lease

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.)

T7S R93W, 6th P.M.; Sec 23: NESW, W2SE; Sec 36: Lots 1-4; T8S R93W, 6th P.M.' Sec 1: Tr 37; Sec 12: Tr 37: COC 52889.

Total Acres in Described Lease: 621 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC52889

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 625 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 3030 Feet
Building Unit: 3260 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 4650 Feet
Above Ground Utility: 3480 Feet
Railroad: 5280 Feet
Property Line: 1475 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: 550 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 619 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): Hunter Mesa Unit Number: COC055972X

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.)
WILLIAMS FORK	WMFK	191-83		

DRILLING PROGRAM

Proposed Total Measured Depth: 9320 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 550 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: ONSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Cuttings trench

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	24+0/0	16+0/0	.25"wall	0	60	135	60	0
SURF	12+1/4	9+5/8	36	0	1076	410	1076	0
1ST	7+7/8	4+1/2	11.6	0	9320	873	9320	5264

☐ 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 is a tapered hole, surface casing hole size goes from 14-3/4" to 12-1/4"; production casing hole size goes from 8-3/4" to 7-7/8". TOC > 200' above MSVD.

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: Alexis Bidgood

Title: Permitting Analyst Date: 8/15/2013 Email: Alexis.Bidgood@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: 10/9/2013

Expiration Date: 10/08/2015

API NUMBER

05 045 22164 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.

COA Type**Description**

	(1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED. (2) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE GARFIELD COUNTY RULISON-FIELD NOTICE TO OPERATORS IS REQUIRED. (3) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE MAMM CREEK FIELD NOTICE TO OPERATORS IS REQUIRED. (4) COMPLIANCE WITH THE NOTICE TO OPERATORS DRILLING WELLS IN THE BUZZARD, MAMM CREEK, AND RULISON FIELDS, GARFIELD COUNTY AND MESA COUNTY IS REQUIRED. (PROCEDURES AND SUBMITTAL REQUIREMENTS FOR COMPLIANCE WITH COGCC ORDERS NOS. 1-107, 139-56, 191-22, AND 369-2 (JULY 8, 2010)). SEE ATTACHED NOTICE.
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Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Pre-Construction	Wattles, Silt Fence, Vegetation Buffers, Slash, Topsoil Windrows (diversions & ROP's), Scheduling, Phased Construction
2	Wildlife	Minimize the number, length and footprint of oil & gas development roads Use existing routes where possible Combine utility infrastructure planning (gas, electric & water) when possible with roadway planning to avoid separate utility corridors Coordinate Employee transport when possible Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multi-function contractors. Maximize use of state-of-the-art drilling technology (e.g., high efficiency rigs, coiled-tubing unit rigs, closed-loop or pitless drilling, etc.) to minimize disturbance.
3	Construction	(Not all are used all the time) Terminal Containment, Diversions, Run-On Protection, Tracking, Benching, Terracing, ECM (Erosion Control Mulch), ECB (Erosion Control Blanket), Check Dams, Seeding, Mulching, Water Bars, Stabilized Unpaved Surfaces (Gravel), Stormwater & Snow Storage Containment, Scheduling, Phased Construction, Temporary Flumes, Culverts with inlet & outlet protection, Rip Rap, TRM (Turf Reinforcement Mats), Maintenance, Scheduling, Phased Construction, Fueling BMP's, Waste Management BMP's, Materials Handling BMP's
4	Interim Reclamation	Maintenance Revegetation Monitoring BMP maintenance & monitoring Weed Management

Total: 4 comment(s)

Applicable Policies and Notices to Operators

Mamm Creek Field Area Notice to Operators.

Piceance Rulison Field - Notice to Operators.

NW Colorado Notification Policy.

Bradenhead Pressure Reporting-Garfield County (Mamm Creek & Rulison Fields) Mesa County (Buzzard Field).

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400458049	FORM 2 SUBMITTED
400466603	DEVIATED DRILLING PLAN
400466604	WELL LOCATION PLAT
400466605	FED. DRILLING PERMIT
400466606	DIRECTIONAL DATA

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Changes in lease description requested by operator.	10/9/2013 11:35:22 AM
Permit	Final review completed. No LGD or public comments.	10/3/2013 1:17:55 PM
Permit	Pending public and 2A. Surface location on Middleton Creek (Federal) Unit and producing interval in Hunter Mesa (Federal) Unit is permissible, according to Peter Cowan of BLM in Glenwood Springs. Federal surface to Federal minerals is ok with BLM. Operator has posted Bond COB000235 with BLM. Added Order 191-83.	8/28/2013 11:00:45 AM
LGD	pass, gdb	8/26/2013 11:50:27 AM
Engineer	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 70 FEET DEEP.	8/19/2013 11:27:35 AM
Permit	This form has passed completeness.	8/16/2013 10:24:31 AM

Total: 6 comment(s)