

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:
400891777

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL GAS COALBED OTHER _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Date Received:
09/04/2015

Well Name: Stover Federal Well Number: 9-12 1D
Name of Operator: GRMR OIL & GAS LLC COGCC Operator Number: 10524
Address: 370 INTERLOCKEN BLVD SUITE 550
City: BROOMFIELD State: CO Zip: 80021
Contact Name: Terry Hoffman Phone: (720)542-8287 Fax: ()
Email: terry@rockymountainpermitting.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: _____

WELL LOCATION INFORMATION

QtrQtr: NWSW Sec: 9 Twp: 4N Rng: 90W Meridian: 6
Latitude: 40.327356 Longitude: -107.518231

Footage at Surface: 1843 feet FNL/FSL FSL 307 feet FEL/FWL FWL

Field Name: WILDCAT Field Number: 99999
Ground Elevation: 6897 County: MOFFAT

GPS Data:
Date of Measurement: 04/06/2015 PDOP Reading: 2.0 Instrument Operator's Name: Martin Pierce

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

Footage at Top of Prod Zone: FNL/FSL 566 FSL 556 FWL 383 FNL 734 FEL/FWL FWL
Sec: 9 Twp: 4N Rng: 90W Sec: 16 Twp: 4N Rng: 90W

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: Yes

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

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.)

T4N-R90W - Sec 9: Lot 1; Sec 9: NWSW, S2SW; Sec. 16: N2NE,W2; Sec. 21: NW, NESW, SWSW, N2SE

Total Acres in Described Lease: 891 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # COC68818

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 556 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2340 Feet

Building Unit: 2340 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1801 Feet

Above Ground Utility: 783 Feet

Railroad: 5280 Feet

Property Line: 1843 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 proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 832 Feet

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

Federal or State Unit Name (if appl): Williams Fork Unit Number: COC074956X

SPACING & FORMATIONS COMMENTS

This well is in a "federal" unit; spacing is not applicable.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
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NIOBRARA	NBRR			
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DRILLING PROGRAM

Proposed Total Measured Depth: 4899 Feet

Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator:

832 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: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

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	30	20		0	60	270	60	0
SURF	15	10+3/4	40.5	0	500	380	500	0
1ST	9+7/8	7+5/8	26.4	0	3402	490	3402	
1ST LINER	6+3/4	5+1/2	15.5	3402	4899			

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 Directional well will NOT be fracture stimulated, so Offset Well Evaluation is not applicable.
Lease lines not applicable; this well is located in a "federal" unit.
Closest wellbore in same formation is on same multi-well pad - is proposed Stover Federal 9-121H - applied for permit

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: Terry Hoffman

Title: Permit Agent Date: 9/4/2015 Email: terry@rockymountainpermitting

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: 12/7/2015

Expiration Date: 12/06/2017

API NUMBER
05 081 07824 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

	<p>1) Operator shall comply with the most current revision of the Northwest Notification Policy. See attached notice.</p> <p>2) Minimum surface casing setting depth requirements: 50' below the base of the Morapos Formation with the shoe in Mancos Shale or 500', as proposed by the operator, whichever is deeper. Full cement to surface is required for the surface casing; increase cement volume as necessary to accomplish that objective. Refer to COGCC's comment on this form regarding the operator's prognosed depth to the Morapos Formation.</p> <p>3) Operator shall provide cement coverage from the production casing shoe (7+5/8" First String) to a minimum of 200' above the surface casing shoe to provide isolation of all Cretaceous oil, gas, and water-bearing sandstone and coalbed formations that are not otherwise covered by surface casing. Verify production casing cement coverage with a cement bond log.</p>
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Best Management Practices

No BMP/COA Type

Description

1	Storm Water/Erosion Control	A Stormwater Management Plan will be prepared and will meet all requirements of the COGCC & CDPHE. Stormwater BMPs will be put in place to control erosion prior to constructing the well pad and access road.
2	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with open-hole Resistivity Log and Gamma Ray Log from TD into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "No open-hole logs were run" and shall clearly identify (by API#, well name and number) the well in which open-hole logs were run.

Total: 2 comment(s)

Applicable Policies and Notices to Operators

Policy
NW Colorado Notification Policy. http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400891777	FORM 2 SUBMITTED
400895052	DEVIATED DRILLING PLAN
400895389	DIRECTIONAL DATA
400896019	SURFACE AGRMT/SURETY
400910912	PLAT

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Corrected cuttings disposal method to match 2A as per operator. Corrected distance to building and building unit from 2617' to 2340' as per operator. Corrected distance to public road from 5081' to 1807' as per operator. Final review complete.	12/2/2015 7:09:02 AM
Permit	Requested permission to correct cuttings disposal method from drilling pit to cuttings trench to match the 2A. Requested clarification on distance to building. Other 2 and 2A are approximately 200' less.	11/17/2015 4:01:34 PM
Permit	Corrected minerals beneath the location will be produced by this locaiton. (Federal Unit) As per operator. Corrected distance to mineral lease line from 0 to 556' (TOPZ) as per operator. Corrected TMD and Setting depth from 4900' to 4899' as per deviated drilling plan and operator. Ready to pass pending 2A approval.	10/19/2015 2:41:28 PM
Engineer	Offset water well check: There are three permitted water wells within 1 mile of this proposed surface hole location, listed as monitoring holes with no depths reported.	10/15/2015 12:24:18 PM
Engineer	Mancos Formation outcrops at the surface. The operator's prongosed depths for the Morapos Formation (a shallow, potential water source) is 97' to 277', which would be covered by the operator's proposed surface casing setting depth of 500' (prognosis source - Form 2 attachment to other proposed well on this pad, Stover Federal 9-12 1H). However, the Morapos Formation is evident on an offset induction log for Federal M- 9-4-90-S (081-06642) from 706' to approximately 986'. Accounting for differences in ground surface elevation, but not accounting for potential geologic dip, the base of the Morapos Formation may be as deep as 627' in this proposed well. Surface casing coverage of the Morapos Formation is required, as specified in Condition of Approval #2. COGCC concurs with the operator's plan to cement the production casing (7+5/8" First String) into the surface casing.	10/15/2015 12:21:17 PM

Engineer	<p>Operator reports "Distance to nearest permitted or existing wellbore penetrating objective formation: 832 Feet (Including plugged wells)," which appears to be the approximate distance to the dry and abandoned well Federal M-9-4-90-S (081-06642), located SSE of this proposed well. COGCC's GIS plots a closer dry and abandoned well, Gov #1 (081-05177), approximately 620' SE of this proposed well. An existing producing well Herring Draw #1-9 (081-07668) has an apparent lateral offset distance of approximately 270' in plan (map) view from the proposed well on COGCC's GIS.</p> <p>The operator states that "This Directional well will NOT be Fracture Stimulated; so Offset Wells Evaluation is Not Applicable." An operator Offset Well Evaluation is not attached.</p> <p>In the event that the operator's plans change in the future to include stimulation, COGCC offers comments regarding wells within 1500' of the proposed completion interval, including both dry and abandoned wells cited above:</p> <p>Evaluated offset DA well Gov #1 (05-081-05177), surface casing set at 109' and cemented to surface, production casing set at 2953' with cmt to approximately 2210', well TD in Carlile Formation at 3910'. Well dry and abandoned, pulled production casing at 2210' (the assumed top of cement). Cement plugs reportedly set across production casing stub with 25 sx from 2235' to 2185', above the Niobrara top at 2937', 10 sx across the surface casing shoe from 124' to 94', and at surface with 10 sx from 30' to surface. No mitigation required.</p> <p>Evaluated offset DA well Federal M-9-4-90-S (05-081-06642), surface casing set at 203' and cemented to surface, production casing set at 2969' with cmt to approximately 2098', well TD in Niobrara Formation or underlying shale at 4156'. Well dry and abandoned, pulled production casing at 2098' (the assumed top of cement). Cement plugs reportedly set across production casing shoe with 25 sx at 3020', across production casing stub with 35 sx at 2150', across the Morapos Formation, which was reported as a fresh water sandstone with 75 sx at 900' and 70 sx at 813', 60 sx across the surface casing shoe at 250', and at surface with 10 sx. No mitigation required.</p> <p>Evaluated offset PR well Herring Draw #1-9 (081-07668), TD at 6543' in the Niobrara Formation. Surface casing is set at 585' and cemented to surface, intermediate casing is set at 2766' and cemented into the surface casing, an uncemented, pre-perforated production liner is hung from the intermediate casing from 2522' to 6543'. Lateral offset distance is approximately 270' in plan (map) view from the proposed well. If stimulation is considered for the proposed well in the future, then bradenhead monitoring of this offset well would be required (if so, contact COGCC Engineering staff for specific requirements).</p>	10/15/2015 12:13:43 PM
Engineer	Removed 0.5 lb/ft as casing weight for the conductor.	10/15/2015 11:02:41 AM
Permit	Passed completeness.	10/5/2015 8:31:55 AM
Permit	Returned to draft. Well location plat does not follow guidance.	9/21/2015 3:07:29 PM
Permit	Returned to draft at oper.'s request.	9/8/2015 8:38:07 AM

Total: 10 comment(s)