

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

| | | |
|---|------------------------------------|------------------------------|
| TYPE OF WELL OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____ | Refiling <input type="checkbox"/> | Date Received: 03/20/2015 |
| ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/> | Sidetrack <input type="checkbox"/> | |

Well Name: Hamill Well Number: 19-16D

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: Angela Calaway Phone: (303)942-0506 Fax: ()

Email: acallaway@upstreampm.com

RECLAMATION FINANCIAL ASSURANCE
Plugging and Abandonment Bond Surety ID: 20140073

WELL LOCATION INFORMATION

QtrQtr: SESE Sec: 19 Twp: 5N Rng: 90W Meridian: 6

Latitude: 40.364225 Longitude: -107.529442

| | | |
|-------------------------------------|------------|---------|
| Footage at Surface: <u>163</u> feet | FNL/FSL | FEL/FWL |
| <u>FSL</u> <u>230</u> feet | <u>FEL</u> | |

Field Name: WILDCAT Field Number: 99999

Ground Elevation: 6454 County: MOFFAT

GPS Data:
Date of Measurement: 11/14/2014 PDOP Reading: 1.4 Instrument Operator's Name: Harold Marshall

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 |
| <u>242</u> <u>FNL</u> <u>309</u> <u>FEL</u> | <u>242</u> <u>FNL</u> <u>309</u> <u>FEL</u> | | | | |
| Sec: <u>30</u> Twp: <u>5N</u> Rng: <u>90W</u> | Sec: <u>30</u> Twp: <u>5</u> Rng: <u>90</u> | | | | |

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: 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.)

T5N R90W: Sec. 19: SE/4, E/2SW/4; Sect. 30: Lots 5 and 6

Total Acres in Described Lease: 319 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 309 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1708 Feet
 Building Unit: 1789 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 2119 Feet
 Above Ground Utility: 1186 Feet
 Railroad: 5280 Feet
 Property Line: 202 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: 2385 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 located within the Williams Fork Federal Unit.

OBJECTIVE FORMATIONS

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| DAKOTA-WEBER | DK-WB | | | |

DRILLING PROGRAM

Proposed Total Measured Depth: 6980 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1210 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? Yes

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: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Water Based Mud cuttings and fluids will be buried onsite. Oil Based Mud cuttings and fluids will be transported offsite to Twin Enviro in Milner, CO.

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 | 20 | 16 | 83 | 0 | 60 | 80 | 60 | 0 |
| SURF | 12+1/4 | 9+5/8 | 36 | 0 | 800 | 220 | 800 | 0 |
| 1ST | 7+7/8 | 5+1/2 | 17 | 0 | 6980 | 560 | 6980 | 600 |

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 Distance from completed portion of the wellbore to nearest wellbore permitted or completed in the same formation was measured to the Calista 9-19. Distance to nearest permitted or existing wellbore penetrating object formation was measured to the Harper Hill 2-29. The Williams Fork 1-19 permit has expired.

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: Angela Callaway _____

Title: Permit Agent _____ Date: 3/20/2015 _____ Email: acallaway@upstreampm.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: 6/24/2015

Expiration Date: 06/23/2017

API NUMBER

05 081 07820 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) Surface casing setting depth has been increased from 700' to 800' to meet minimum isolation requirements. Cement volume shall be increased accordingly to provide full coverage from total depth to surface.</p> <p>3) Operator shall provide cement coverage from the production casing shoe (5+1/2" First String) to a minimum of 200' above the surface casing shoe to provide isolation of all 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

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Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

| Att Doc Num | Name |
|--------------------|------------------------|
| 400779988 | FORM 2 SUBMITTED |
| 400797062 | WELL LOCATION PLAT |
| 400799535 | DEVIATED DRILLING PLAN |
| 400799540 | DIRECTIONAL DATA |
| 400812645 | DRILLING PLAN |

Total Attach: 5 Files

General Comments

| User Group | Comment | Comment Date |
|-------------------|---|--------------------------|
| Permit | Final review complete. | 6/24/2015 12:57:07 PM |
| Permit | Ready to pass. | 4/29/2015 3:37:40 PM |
| Engineer | Changed First String (5+1/2" casing) top of cement from 700' to 600' (required 200' above revised surface casing shoe setting depth of 800'). | 4/2/2015 4:49:15 PM |
| Engineer | Operator Submit Tab comment states that the distance to nearest permitted or existing wellbore penetrating the objective formation (including plugged wells) was measured to the Harper Hill 2-29, with a value of 2,135' entered on this form. However, COGCC records indicate that offset well Myers 20-13 (081-06683) penetrated the objective formations in this proposed well (Dakota and Weber), and the lateral separation at surface is approximately 1,210'. Contacted operator on 4/3/2015 to request clarification. Operator agent Angela Callaway replied on 4/6/2015, confirming the offset distance of 1,210' to Myers 20-13. Changed value on this form to 1,210'. | 4/2/2015 4:39:00 PM |
| Engineer | <p>Offset Wells Tab not required for operator (this is not a horizontal well). COGCC Offset Well Evaluation: According to COGCC records, offset permitted well Williams Fork 1-19 (081-07776) was not drilled, and its permit, Form 2 #400313808 expired on 2/7/2015. Planned cement coverage of the first string in that well left the interval from 2,375' to 800' uncemented. Full cement coverage will be required if a refile Form 2 is submitted for Williams Fork 1-19. The proposed path of this well is within 150' of the former planned Williams Fork 1-19 wellbore. An anticollision scan and bradenhead monitoring would also be required if a refile Form 2 is submitted for Williams Fork 1-19.</p> <p>Evaluated offset DA well Myers 20-13 (05-081-06683), surface casing set at 918', open hole drilled to the Leadville Formation with a TD of 8812' then plugged back as a dry hole. Well plugged with 130 sx in open hole from 6265' to 6052' across the Shinarump Formation, 50 sx across the surface casing shoe from 968' to 868', and 10 sx at surface. No plug immediately above the Niobrara Formation. No mitigation required for objective formations below the Shinarump Formation, as is the case with this Form 2. Mitigation would be required for any completion attempts in Formations above the Shinarump Formation, up through the Niobrara Formation (not currently contemplated on this Form 2).</p> <p>Evaluated offset PA well Gilbert Myers 1-29 (05-081-06310), surface casing set at 326' and cemented to surface, production casing set at 5114' with top of cement at 4470', well TD in Lakota Formation at 5117'. Completed in the Lakota Formation and Dakota Formation and then plugged and abandoned after testing the completions. Well plugged with 25 sx above a CIBP at 4970', csg pulled at 1060', 25 sx at the csg stub, 20 sx across the surface casing shoe at 325', and 5 sx at surface. No plug immediately above the Niobrara Formation. No mitigation required for Dakota or underlying objective formations, as is the case with this Form 2. Mitigation would be required for any completion attempts in Niobrara Formation or the Frontier Formation (not currently contemplated on this Form 2).</p> | 4/2/2015 4:18:53 PM |

| | | |
|----------|--|----------------------|
| Engineer | Mancos Formation outcrops at the surface. A shallow, potential water source (weathered Mancos and/or Morapos) is apparent on offset electrical logs for Hamill #1(081-06598, base at 740' MD, elev. 5620' MSL) and Gilbert Myers #1-29 (081-06310, base at 830' MD, elev. 5800' MSL). Using an average value of 5710' MSL and this proposed well's ground elevation of 6454', the approximate base of the water resource is 744'. The minimum required surface casing setting depth has been increased to 800' MD, as specified in Condition of Approval #2. COGCC concurs with the operator's plan to cement the production casing (9+5/8" First String) into the surface casing. | 4/2/2015 4:06:59 PM |
| Engineer | Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 450 feet. | 4/2/2015 4:01:46 PM |
| Permit | Added conductor information and unchecked that no conductor was planned as per opr. | 3/27/2015 8:36:56 AM |
| Permit | Passed Completeness | 3/25/2015 9:23:14 AM |

Total: 9 comment(s)