

FORM
2A

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:

400787414

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Date Received:

03/20/2015

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: _____

Submit signed original form. This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

442178

Expiration Date:

06/23/2018

This location assessment is included as part of a permit application.

CONSULTATION

This location is included in a Comprehensive Drilling Plan. CDP # _____

This location is in a sensitive wildlife habitat area.

This location is in a wildlife restricted surface occupancy area.

This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 10524
Name: GRMR OIL & GAS LLC
Address: 370 INTERLOCKEN BLVD SUITE 550
City: BROOMFIELD State: CO Zip: 80021

Contact Information

Name: Kimberly J. Rodell
Phone: (303) 942-0506
Fax: ()
email: krodell@upstreampm.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20140073 Gas Facility Surety ID: _____

Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Hamill Number: 19-16D

County: MOFFAT

Quarter: SESE Section: 19 Township: 5N Range: 90W Meridian: 6 Ground Elevation: 6454

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 163 feet FSL from North or South section line

230 feet FEL from East or West section line

Latitude: 40.364225 Longitude: -107.529442

PDOP Reading: 1.4 Date of Measurement: 11/14/2014

Instrument Operator's Name: Harold Marshall

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID # FORM 2A DOC #

Well Site is served by Production Facilities

423735

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	1	Oil Tanks*	2	Condensate Tanks*		Water Tanks*	1	Buried Produced Water Vaults*	
Drilling Pits	0	Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks	1	Separators*	1	Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*		Electric Motors		Electric Generators*		Fuel Tanks*		LACT Unit*	
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*		Flare*		Pigging Station*	

OTHER FACILITIES*

Other Facility Type

Number

Dry Cuttings Pit

1

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

There will be 4,224' (0.8 miles) of 6" steel flowline for gas. There will be three (3) 2" steel lines - two (2) for oil and one (1) for gas.

CONSTRUCTION

Date planned to commence construction: 06/29/2015 Size of disturbed area during construction in acres: 3.25

Estimated date that interim reclamation will begin: 10/15/2015 Size of location after interim reclamation in acres: 1.01

Estimated post-construction ground elevation: 6446

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? Yes

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Water based cuttings and fluids will be dried and buried onsite. Oil Based cuttings and fluids will be hauled offsite to Twin Enviro in Milner, CO.

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

Centralized E&P Waste Management Facility ID, if applicable:

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Frank Hamill

Phone:

Address: 5094 Hwy 317

Fax: _____

Address: _____

Email: _____

City: Hamilton State: CO Zip: 81638

Surface Owner: Fee State Federal Indian

Check all that apply. The Surface Owner: is the mineral owner

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 from or produced to this Oil and Gas Location: Yes

The right to construct this Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

Date of Rule 306 surface owner consultation 10/28/2014

CURRENT AND FUTURE LAND USE

Current Land Use (Check all that apply):

Crop Land: Irrigated Dry land Improved Pasture Hay Meadow CRP

Non-Crop Land: Rangeland Timber Recreational Other (describe): _____

Subdivided: Industrial Commercial Residential

Future Land Use (Check all that apply):

Crop Land: Irrigated Dry land Improved Pasture Hay Meadow CRP

Non-Crop Land: Rangeland Timber Recreational Other (describe): _____

Subdivided: Industrial Commercial Residential

CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	1708 Feet	1586 Feet
Building Unit:	1789 Feet	1667 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	2119 Feet	1970 Feet
Above Ground Utility:	1186 Feet	1047 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	202 Feet	50 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- 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.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

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: _____

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*

By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 117 - Lamphier-Jerry complex, 25- to 65 percent slopes

NRCS Map Unit Name: 99-Hesperus fine sandy loam, dry, 2 to 15 percent slopes

NRCS Map Unit Name: _____

PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes No

Plant species from: NRCS or, field observation Date of observation: _____

List individual species: Letterman's needlegrass, Mountain big sagebrush, Slender wheatgrass, Western wheatgrass, Mountain snowberry, Miscellaneous perennial forbs, Nodding brome, Mountain brome, Elk Sedge, Miscellaneous perennial grasses, Gabel oak, Saskatoon serviceberry, etc.

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- Alpine (above timberline)
- Other (describe): _____

WATER RESOURCES

Is this a sensitive area: No Yes

Distance to nearest

downgradient surface water feature: 270 Feet

water well: 4625 Feet

Estimated depth to ground water at Oil and Gas Location 20 Feet

Basis for depth to groundwater and sensitive area determination:

This location was checked as sensitive due to depth to groundwater. The closest water well per COGCC's website is Water Well Permit 123573. Depth to groundwater was determined by Water Well Permit 131151.

Is the location in a riparian area: No Yes

Was an Army Corps of Engineers Section 404 permit filed No Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: _____

Is the Location within a Floodplain? No Yes Floodplain Data Sources Reviewed (check all that apply)

Federal (FEMA)

State

County

Local

Other _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

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)

RULE 502.b VARIANCE REQUEST

- Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

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 location will serve two wells.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 03/20/2015 Email: acallaway@upstreampm.com

Print Name: Angela Callaway Title: Permit Agent

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

Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

COA Type**Description**

If the operator requires to obtain water from the nearby Williams Fork River, the pump and pipeline system must be capable of preventing any backflow into the river after pump shutdown. Any water pumped from the Williams Fork River, but not used during the drilling and completion operations, must be disposed of offsite, not back into the river.

As indicated on the Form 2A, since oil base foam drilling mud will be used for the horizontal portion of the wellbore, a closed loop system must be implemented during drilling. All cuttings generated during drilling with oil based mud or high chloride/TDS mud must be kept in the lined drilling pit (if permitted and constructed), tanks/containers, or placed on a lined/bermed portion of the well pad; prior to disposition. The moisture content of any drill cuttings in a cuttings containment area or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. After drilling and completion operations have been completed, the drill cuttings that will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), must meet the applicable standards of Table 910-1. Any material which does not meet Table 910-1 criteria will either be manifested and disposed offsite at an approved commercial facility, or amended further onsite to comply with Table 910-1. After the drill cuttings have been amended (if necessary or applicable) and placed on the well pad, sampling frequency of the drill cuttings (to be determined by the operator) shall be representative of the material left on location. If operator determines that long-term onsite management of oil based mud or high chloride/TDS mud cuttings is necessary, an approved Form 27 remediation plan will be required. No offsite disposal of cuttings to another oil and gas location shall occur without prior approval of a Waste Management Plan (submitted via a Form 4 Sundry Notice) specifying disposal location and waste characterization method. Commercial disposal of drill cuttings will only require notification to COGCC via a Form 4 Sundry Notice. All liners associated with oil based or high chloride/TDS drilling mud and cuttings must be disposed of offsite per CDPHE rules and regulations.

If the well(s) is (are) to hydraulically stimulated, then flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or storage vessel located on the well pad; or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area constructed to be sufficiently impervious to contain any spilled or released material.

Potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.

	<p>Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days and after precipitation events), and maintained in good condition.</p> <p>The access road will be constructed and maintained as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.</p> <p>Strategically apply fugitive dust control measures, including enforcing established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.</p> <p>The access road and well pad locations are in an area of moderate to high run-on/run-off potential; therefore standard stormwater BMPs must be implemented; prior to, during, and after construction, as well as during drilling, completion, and production operations; at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater run-off.</p> <p>Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with poly liner) to contain any spilled or released material around permanent crude oil, condensate, and produced water storage tanks.</p>
	<p>Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, start of hydraulic stimulation operations (if applicable), and start of flowback operations (if applicable and/or if different that start of hydraulic stimulation operations) using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).</p>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Storm Water/Erosion Control	GRMR will implement a storm water and erosion plan to prevent sedimentation and erosion.

Total: 1 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2107601	OPERATOR CORRESPONDENCE
2107602	ACCESS ROAD MAP
2107603	LOCATION PICTURES
2107604	LOCATION DRAWING
2107605	CONSTRUCTION LAYOUT DRAWINGS
2107606	HYDROLOGY MAP
2107607	REFERENCE AREA MAP
2107608	REFERENCE AREA PICTURES
2168000	NRCS MAP UNIT DESC
400787414	FORM 2A SUBMITTED

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Location is being permitted for one well regardless of opr comment that the location will serve two wells. Final review complete.	6/24/2015 12:58:17 PM
OGLA	Initiated/Completed OGLA Form 2A review on 05-05-15 by Dave Kubeczko; Completed OGLA Form 2A review on 06-23-15 by Dave Kubeczko; requested revised Multi-Well Plan, and acknowledgement of fluid containment, spill/release BMPs, flowback to tanks only, OBM cuttings management, cuttings low moisture content, notification, tank berming, construction BMPs, sediment control, dust control, river water control, and odor control COAs from operator on 05-05-15; conducted COGCC/operator/surface owner onsite on 04-22-15 to discuss location; passed by CPW on 04-22-15 with recommendations to prevent flowback of potable water to the river and backfilling trenches to keep wildlife out BMPs acceptable; requested revised Access Road Map and pertinent attachments to change number of wells from 2 to 1 per operation request on 05-29-15; received revised attachments from operator on 06-10-15 and acknowledgement of COAs from operator on 06-17-15; changed number of wells and pump jacks from 2 to 1 per operator request on 05-28-15; passed OGLA Form 2A review on 06-24-15 by Dave Kubeczko; fluid containment, spill/release BMPs, flowback to tanks only, OBM cuttings management, cuttings low moisture content, notification, tank berming, construction BMPs, sediment control, dust control, river water control, and odor control COAs.	5/5/2015 1:58:50 PM
Permit	Adjusted date for planned construction as per opr. Attached corrected NRCS mapas per opr.	4/29/2015 1:48:25 PM
DOW	GRMR Hamill 19-16D (Doc. No. 400787414) The onsite for GRMR's proposed Myers 19-11HS was conducted on 3/17/15. Consequently, the onsite inspection for GRMR's proposed Hamill 19-16D location was conducted on 4/22/15. Evan Jones (District Wildlife Manager, Craig South District) confirmed on 4/3/15 that CPW's attendance would not be necessary as the proposed location and access corridor would most likely not affect elk behavior to the extent that it would negatively impact elk populations in the Williams Fork drainage. CPW's comments that were submitted for GRMR's proposed Myers 19-11HS location (which is approximately 0.5 miles from GRMR's proposed Hamill 19-16D) regarding water use and impacts to aquatic resources, and site-specific methods used to help reduce or minimize impacts to elk that use this area seasonally, also apply to the Hamill 19-16D location. As such, CPW recommends the following: 1. If water will be taken out of the Williams Fork River and used during the drilling phase at this site, methods should be used such as suction hoses, decontamination or back-flow preventers to ensure that the untreated water does not re-enter the river. 2. GRMR shall monitor all open trenches daily while they are open. Ideally, all open trenches would be back-filled as soon as possible to alleviate issues regarding elk falling into the trench(s). BRETT SMITHERS, CPW, 04/22/15 11:25	4/22/2015 11:26:26 AM
Permit	Corrected NRCS soil information from "99-Hesperus fine sandy loam, dry, 2 to 5 percent slopes" to "99-Hesperus fine sandy loam, dry, 2 to 15 percent slopes" Passed completeness.	3/26/2015 1:40:37 PM

Total: 5 comment(s)