

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:

400426748

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☐ COALBED ☐ OTHER CO2 lateral

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

08/23/2013

Well Name: HF Well Number: 4
Name of Operator: KINDER MORGAN CO2 CO LP COGCC Operator Number: 46685
Address: 17801 HWY 491
City: CORTEZ State: CO Zip: 81321
Contact Name: Paul Belanger Phone: (970)882-2464 Fax: (970)882-5521
Email: Paul_Belanger@kindermorgan.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20110027

WELL LOCATION INFORMATION

QtrQtr: TR54 Sec: 1 Twp: 37N Rng: 19W Meridian: N

Latitude: 37.486850

Longitude: -108.895970

Footage at Surface: 425 feet FNL/FSL FSL 2293 feet FEL/FWL FWL

Field Name: MCELMO Field Number: 53674

Ground Elevation: 6248 County: MONTEZUMA

GPS Data:

Date of Measurement: 05/07/2013 PDOP Reading: 1.5 Instrument Operator's Name: R J CAFFEY

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

Footage at Top of Prod Zone: FNL/FSL 425 FSL 2293 FWL 1575 FNL 2293 FWL FWL
Sec: 1 Twp: 37N Rng: 19W Sec: 12 Twp: 37N Rng: 19W

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.)

320 ACRES Resurvey Tract 54 lying and being in Section 1:S/2S/2SW/4, Section 11:E/2SE/4 and Section 12: NW/4, N/2SW/4.
The surface owner did not sign a lease and therefore is a working interest partner in the well

Total Acres in Described Lease: 320 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: 287 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1790 Feet
Building Unit: 1790 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 700 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 287 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: 3225 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): MCELMO DOME Unit Number: 047653X

SPACING & FORMATIONS COMMENTS

SEE COMMENTS IN SUBMITTAL COMMENTS AREA

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
Leadville	LDVLL	389-1		

DRILLING PROGRAM

Proposed Total Measured Depth: 10031 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 3225 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? Yes

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: Recycle/reuse

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

DEWATER IN CLOSED LOOP SYSTEM; SEE COMMENTS IN SUBMIT COMMENT BOX. ANY Water after recycle is disposed in our Class 1 disposal well

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	14	99	0	80	100	80	0
SURF	12+1/4	9+5/8	36	0	2520	1100	2520	0
1ST	8+3/4	7	29&32	0	7955	2200	7955	0
OPEN HOLE	4+3/4		0	7955	10031	0		

☐ 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 form represents the application to drill for the horizontal wellbore portion associated with a vertical pilot wellbore (see docnum 400421221). No H2S or salt sections are expected to be encountered in this drilling portion of the wellbore (horizontal); those sections and related contingency plans are addressed in the vertical wellbore application (docnum 400421221).

Distance to unit boundary >5280'; SEE "OTHER ATTACHMENT DOCUMENTING EXPLANATION OF WHITE SQUARE 1335' FROM SHL.

There are 2 lease documents attached: Hagerman Lessor, Book 502, Page 655 and Gilmore Lessor, Book 501, Page 136, of which Leases cover a combined 80% Oil, Gas and Mineral Interest. Both leases available/redacted. Please see attached Memo from Johnston Land Company, Inc. to Kinder Morgan. Both are prefaced by a memo explaining the lack of description of that part of Tract 54 lying in Section 1:S/2S/2SW/4.

The remaining 20% interest is a working interest owner in the McElmo Dome Unit and considered in Kinder Morgans Division of interest records as a "non-signatory owner", meaning apparently that they did not sign and join the unit, therefore they were most likely forced pooled and as of this date are shown in Kinder Morgans records as a Working Interest Party, which interest is committed to the McElmo Dome unit Operated by Kinder Morgan.

The surface owner did not sign a lease and therefore is a working interest partner in the well

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: Paul E. Belanger

Title: Regulatory Contractor Date: 8/23/2013 Email: Paul_Belanger@KinderMorgan

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: 9/27/2013

Expiration Date: 09/26/2015

API NUMBER

05 083 06707 01

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) Provide 48 hour notice of spud to COGCC and submit via form 42</p> <p>2) The operator shall comply with Rule 321 and it shall be the operator's responsibility to ensure that the well bore complies with setback requirements in Commission orders and/or rules prior to producing the well.</p> <p>3) Run and submit Directional Survey for primary well bore and for each lateral section</p>
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Best Management Practices

No BMP/COA Type

Description

1	Planning	<p>A Kinder Morgan Fire Mitigation Plan is currently on file with the Montezuma County Planning Office.</p> <p>Any material not in use that might constitute a fire hazard will be removed a minimum of 25 feet from the wellhead, tanks and separator.</p> <p>Any electrical equipment installations inside the bermed area will comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.</p>
2	Traffic control	<p>A Road Use Plan, which addresses traffic concerns specific to the HF-4, is currently on file with Montezuma County. The traffic plan was produced after consulting with the county Road and Bridge Supervisor.</p> <p>All access roads are fully compliant with local county road standards. Access roads are composed of compacted gravel.</p>
3	General Housekeeping	<p>Erosion control barriers, namely fiber wattles, will be placed at the edge of disturbance where necessary. Care will be taken to avoid disturbance outside of the project area unless it is deemed necessary for equipment stability and fire safety.</p> <p>On-site trash dumpsters are emptied regularly by the local waste management company.</p> <p>The well site will be adequately fenced to restrict access by unauthorized persons.</p>
4	Storm Water/Erosion Control	<p>Fiber wattle will encompass the eastern and southern periphery of the disturbed area.</p> <p>A diversion ditch will be placed along the northern and western edges of the disturbed area, Wattles spaced approximately 70 feet apart will line the ditch.</p> <p>An earth berm will line the edges of the wellpad.</p> <p>Tackifier will be added to the stored topsoil piles to prevent erosion. Stockpiled soils will have slopes not greater than 3:1.</p> <p>Stormwater BMPs will be maintained/amended by Kinder Morgan as site conditions change throughout the construction and reclamation process.</p>

5	Material Handling and Spill Prevention	<p>The use of a closed-loop drilling system will reduce the amount of waste produced and water used during drilling operations. Solid cuttings will be disposed of at a licensed disposal facility.</p> <p>Recycled water will be disposed of in a Class I disposal well.</p> <p>Berms will be constructed around any condensate and produced water tanks and will enclose an area sufficient to contain and provide secondary containment for 150% of the largest single tank. The berms will be sufficiently impervious to contain any spilled or released material. All berms and containment devices will be inspected at regular intervals and maintained in good condition.</p> <p>All loadlines are capped.</p> <p>Tanks are designed to meet all API 650 guidelines.</p>
6	Construction	<p>All equipment will be stored within the right-of-way (ROW) area of disturbance. Top soil will be removed to create a level pad for drilling and access road (length: 96', ROW: 50').</p> <p>Vegetation that does not need to be removed will be avoided during construction and removed vegetation will be cut near ground level, leaving the root system intact except where permanent facilities, roads, or ROWs require the complete removal of vegetation.</p>
7	Noise mitigation	<p>During normal operations, the well will remain within COGCC regulations for noise. However, during the construction phase of the project, this standard may be exceeded occasionally. Drilling should be completed within 30 days.</p> <p>The use of Jake brakes by semi-trucks will be prohibited on county roads.</p>
8	Emissions mitigation	<p>Non-flammable CO2 will be produced from the Leadville formation and thus green completion per rule 805 (3) does not apply.</p> <p>All CO2 wells are equipped with a CO2 leak detection monitor.</p>
9	Drilling/Completion Operations	<p>Blowout preventer equipment (BOPE) complies with COGCC equipment regulations.</p> <p>Mineral Management certification or Director approved training for blowout prevention has been conducted for at least one person at the well site during drilling operations.</p> <p>Kinder Morgan conducts a BOPE test and files a 24 hour notice (Form 42) at the initial rig-up time, after each casing emplacement, and/or every 30 days.</p> <p>No guy line anchors will be left at the well site.</p> <p>KM standard operating protocol includes a check list for well-site clearance activities when a well is transferred from the Drilling Department to the Operations Department.</p> <p>Adequate blowout prevention equipment is used on all well servicing operations.</p> <p>Backup stabbing valves are used on well servicing operations during reverse circulation and are pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.</p> <p>No pits are present at the well site.</p>
10	Interim Reclamation	<p>Surface roughening, surface contouring, seeding, and weed control will be employed to facilitate vegetation reestablishment. Tackifier will be added to reclaimed areas.</p>
11	Final Reclamation	<p>All disturbed areas that are not necessary for operational procedures will be restored to at least 70 percent of pre-disturbance vegetative cover.</p>

Total: 11 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400426748	FORM 2 SUBMITTED
400429885	PLAT
400434498	DRILLING PLAN
400434505	DEVIATED DRILLING PLAN
400434506	DIRECTIONAL DATA
400442510	OTHER
400442512	OIL & GAS LEASE
400447249	OIL & GAS LEASE
400470942	SURFACE AGRMT/SURETY

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no public comment received.	9/25/2013 11:30:58 AM
LGD	The Board of County Commissioners for Montezuma County approved the required local permits for this well site on July 22, 2013.	8/27/2013 4:35:51 PM
Permit	Passed completion	8/27/2013 10:09:44 AM
Permit	Returned to draft; 1) Requested an exception to 604b when none appear to be needed; need clarification 2) Requested a 502b variance to 305a. when none appear to be needed; need clarification 3) Checked surface owner is committed to oil lease when he is not a lease owner. Even if he is a working interest surface owner he is not committed to lease. need clarification.	8/26/2013 12:03:58 PM

Total: 4 comment(s)