

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:

400935588

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Date Received:

03/15/2016

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:

445811

Expiration Date:

05/24/2019

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: 46685
Name: KINDER MORGAN CO2 CO LP
Address: 17801 HWY 491
City: CORTEZ State: CO Zip: 81321

Contact Information

Name: Andrew Antipas
Phone: (970) 882-5534
Fax: (970) 882-5521
email: andrew_antipas@kindermorgan.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20110027 Gas Facility Surety ID: _____

Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: DC Number: 29

County: DOLORIS

Quarter: LOT 3 Section: 10 Township: 40N Range: 18W Meridian: N Ground Elevation: 7176

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: 2220 feet FSL from North or South section line

1577 feet FEL from East or West section line

Latitude: 37.746630 Longitude: -108.830460

PDOP Reading: 5.9 Date of Measurement: 10/28/2015

Instrument Operator's Name: R.J. Caffey

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Fluids: Recycle as much as possible; any excess will go to licensed UIC disposal facility. Cuttings are dewatered in a closed loop system and disposed of at a permitted commercial solid waste facility.

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Allen, Jay F. & Tamara S.

Phone: 970-667-2757

Address: P.O. Box 67

Fax: _____

Address: _____

Email: _____

City: Dove Creek State: CO Zip: 81324

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 06/25/2015

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:	3130 Feet	_____ Feet
Building Unit:	4590 Feet	_____ Feet
High Occupancy Building Unit:	5280 Feet	_____ Feet
Designated Outside Activity Area:	5280 Feet	_____ Feet
Public Road:	2750 Feet	_____ Feet
Above Ground Utility:	3350 Feet	_____ Feet
Railroad:	5280 Feet	_____ Feet
Property Line:	180 Feet	_____ 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 be 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: MAP UNIT 141 - wauquie-dolcan complex, 6-25% SLOPES

NRCS Map Unit Name: MAP UNIT 42 - GLADEL-PULPIT COMPLEX, 3-9% SLOPES

NRCS Map Unit Name: MAP UNIT 58 - ILEX_GRANATH COMPLEX, 2-6% SLOPES

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: 11/12/2015

List individual species: Twoneedle pinyon, oneseed juniper, Utah juniper and Utah serviceberry. Grasses and forbs within the woodland comprised of cheatgrass, intermediate wheatgrass and yellow sweetclover.

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: 440 Feet

water well: 3400 Feet

Estimated depth to ground water at Oil and Gas Location 100 Feet

Basis for depth to groundwater and sensitive area determination:

Depth to groundwater is determined by using depth recordings from nearby well permit applications on file with the Colorado Division of Water Resources.

Sensitive Area Determination:

The nearest perennial water source is approximately 3 miles North of the proposed well location. The DC-29 CO2 well is not within a local wellhead protection area, is greater than 1/8 mile from a domestic water well, and is greater than 1/4 mile from a public water supply well, ground water basin, or surface water supply area.

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 Kinder Morgan CO2 Company may install glycol injection equipment on the well location to address hydrate formation/line obstruction due to freezing. The tanks would be filled by a supply truck every 7 to 10 days, and would be operated between mid-October and June as weather conditions dictate. When not in operation, the skids would either remain installed on location, or be removed from the well location and stored during the off-season to protect them from potential vandalism as determined necessary by Kinder Morgan. The pumps are fairly quiet and should not be audible outside of the well pad area. A plot plan of the glycol skid equipment is attached.

Landowners Blackham and Miller are mineral interest owners.

There are no water wells, seeps or springs located within a 1/2 mile radius of the DC-29 well location. A Form 4 will be filed accordingly per Rule 609.

Four Reference Area photographs will be taken during growing season and submitted.

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

Signed: _____ Date: 03/15/2016 Email: lgartner@ecosphere-services.com

Print Name: Lindsay Gartner Title: Permitting Specialist

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: 5/25/2016

Surface Owner Information

Owner Name	Address	Phone	Fax	Email
Allen, Jay F. & Tamara S.	P.O. Box 67 Dove Creek, CO 81324	970-667-2757		
Blackham, Harold	24150 County Road 35 Wray, CO 80758	970-332-4673		
Miller, Richard	21706 2nd Avenue West Bothell, WA 98021	425-481-0262		

3 Surface Owner(s)

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

	<p>In addition to the notifications required by COGCC listed in Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (a. Notice of Intent to Conduct Hydraulic Fracturing Treatment; b. Notice of Spud; and c. Notice of Construction or Major Change); operator shall notify the COGCC 48 hours prior to rig mobilization and pipeline testing (flowlines from wellheads to separators to tanks; and/or any temporary surface lines used for hydraulic stimulation and/or flowback operations) using the Form 42 (as described in Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions). The appropriate COGCC individuals will automatically be email notified.</p> <p>All personnel must be H2S trained and proper air monitoring for H2S must be implemented during drilling, completion, and production operations. Emergency response plan for H2S must be onsite at all times.</p>
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	<p>Operator must ensure secondary containment for any volume of fluids contained at the well site during drilling and completion operations (as shown on the Proposed BMPs attachment); 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 fluid containment/control as well as stormwater management for the control of run-on and run-off) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals as required by CDPHE (at least every 14 days and after precipitation events), and maintained in good condition.</p> <p>The design/build of any perimeter berm or fluid management structures shall be sized, constructed, and compacted sufficiently to contain and/or manage potential fluid releases during operations in a manner that prevents or controls potential sedimentation and scouring on adjacent lands and drainages. Such design/build of perimeter berms or fluid management structures may include, but are not limited to the following: on location berms; diversion ditches; down gradient baffles intended to slow and control water flow and sediment; enhanced vegetation; or other design features necessary to achieve the goal of protecting adjacent lands and drainages from potential sedimentation and scouring.</p> <p>The access road will be constructed and maintained as to not allow 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 moisture content of water/bentonite based mud (WBM) generated drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts.</p> <p>A closed loop system must be implemented during drilling. Since the operator has indicated that high chloride/TDS based drilling mud (salt based mud [SBM]) will be used, the following requirements will be necessary. All cuttings generated during drilling with SBM must be kept in tanks/containers, or placed on a lined/bermed portion of the well pad; prior to disposition. The moisture content of any SBM-generated 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. Operator has indicated that all drill cuttings will be disposed of offsite. Any liners associated with SBM cuttings (if used during temporary storage) must be disposed of offsite per CDPHE rules and regulations.</p> <p>Flowback and stimulation fluids must be sent to enclosed tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline storage vessel, or other open top containment located on the well pad; or into tanker trucks for offsite disposal. No open top tanks can be used for initial flowback fluids containment. 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. No additional downgradient berming is required if operator constructs a sufficiently sized perimeter berm.</p> <p>Potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.</p>
	<p>Operator shall pressure test pipelines (flowline from the wellhead to the offsite pipeline system/network; and/or any temporary surface lines used for hydraulic stimulation and/or flowback operations) in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent surface/buried pipelines and following any reconfiguration of the pipeline network.</p>

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<p>A Kinder Morgan Wildfire Mitigation Plan is currently on file with the Dolores County Planning Office.</p> <p>Any material not in use that might constitute a fire hazard will be moved a minimum of 25 feet from the wellhead, tanks and separator.</p> <p>Any electrical 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 DC-29, has been agreed upon between Kinder Morgan and Dolores County Road and Bridge. Kinder Morgan has consulted with Dolores County Road and Bridge to ensure that all county related traffic concerns are addressed.</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>During the construction, drilling, and completion phases, on-site trash dumpsters are emptied regularly by the local waste management company.</p> <p>During drilling and completion operations, safety officers are present on location to ensure that livestock, wildlife, and unauthorized personnel do not enter the location.</p>
4	Storm Water/Erosion Control	<p>Diversion ditches will be implemented to divert run-on and run-off around the well pad. Compacted earthen berms will also be utilized to control stormwater run-on and runoff.</p> <p>Tackifier will be added to the stored topsoil piles and all slopes to prevent erosion.</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 solid waste facility.</p> <p>Water that can no longer be reused or recycled will be disposed of in a Class I disposal well.</p> <p>Sufficiently impervious containment devices will be constructed around any condensate and produced water tanks. The containment devices will be sufficiently impervious to contain any spilled or released material. All containment devices will be inspected at regular intervals and maintained in good condition.</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.</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, and wellpads 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 occasionally exceeded.</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 during drilling.</p>

9	Drilling/Completion Operations	<p>Blowout preventer equipment (BOPE) complies with COGCC equipment regulations.</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>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	Surface roughening, surface contouring, seeding, and weed control will be employed to facilitate vegetation reestablishment. Tackifier will be added to reclaimed areas.
11	Final Reclamation	All disturbed areas that are not necessary for operational procedures will be restored to at least 80 percent of pre-disturbance vegetative cover.

Total: 11 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1642202	CORRESPONDENCE
2107821	CORRESPONDENCE
400935588	FORM 2A SUBMITTED
400969846	NRCS MAP UNIT DESC
400973772	WELL LOCATION PLAT
400993591	LOCATION PICTURES
401001484	ACCESS ROAD MAP
401001530	LOCATION DRAWING
401001537	SENSITIVE AREA MAP
401001538	TOPO MAP
401003091	PROPOSED BMPS
401004645	OTHER
401004881	HYDROLOGY MAP
401009639	EQUIPMENT LIST
401011744	REFERENCE AREA MAP

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	5/13/2016 8:59:42 AM
DOW	CPW requested a consultwith the Operator and COGCC at this location per Rule 306.c.iii. This location was designated by the United States Fish and Wildlife Service as Critical Habitat for the Federally Threatened Gunnison Sage Grouse. CPW, the operator, and COGCC staff conducted an onsite inspection of the proposed access road, pipeline, and well pad location on April 6, 2016. The area is surrounded by agricultural fields and the well pad is within a stand dominated by pinion-juniper forest. Therefore, it is CPWs opinion that no suitable Gunnison sage grouse habitat is present at this location.	4/21/2016 10:05:47 AM
OGLA	Initiated/Completed OGLA Form 2A review on 04-15-16 by Dave Kubeczko; requested acknowledgement of notification, H2S training and response plan, fluid containment, spill/release BMPs, sediment and dust control access road, flowback to tanks, odor control, cuttings low moisture and salt-based mud generated cuttings management, and pipeline testing COAs from operator on 04-15-16; received verbal concurrence of COAs from operator on 05-12-16; corrected distance from Wellhead to Public Road (from 3080" to 2750') on this Form 2A#400935588 and the associated Form 2#400937121 per review of COGCC's Online GIS Map showing the corner of County Road 12 approximately 2750' to the southeast - and per operator's verbal concurrence on 05-12-16; location is not mapped as sensitive wildlife habitat based on COGCC's and CPW's species activity mapping, however, the location does fall within the United States Fish and Wildlife Service's maps as Unoccupied Critical Habitat for the Federally Threatened Gunnison Sage Grouse; CPW/COGCC/Kinder Morgan conducted an onsite wildlife consultation on 04-06-16; passed by CPW on 04-21-16 indicating that there was no suitable Gunnison sage grouse habitat present at this location, and therefore there are no wildlife recommendations or concerns; passed OGLA Form 2A review on 05-12-16 by Dave Kubeczko; notification, H2S training and response plan, fluid containment, spill/release BMPs, sediment and dust control access road, flowback to tanks, odor control, cuttings low moisture and salt-based mud generated cuttings management, and pipeline testing COAs.	4/14/2016 1:42:59 PM
OGLA	Received request from CPW for consultation based on 306.c.(1)A.iii. on 3/21/16. This proposed Oil and Gas Location falls within "Unoccupied Critical Habitat for Gunnison Sage Grouse" per USFWS. CPW Consultation Task opened on 3/22/16 with deadline of 4/30/16 (40 days from start of public comment period). See attached correspondence doc #1642202.	3/22/2016 11:03:22 AM
Permit	Passed completeness.	3/21/2016 8:12:36 AM
Permit	Reference Area Map still missing.	3/18/2016 9:53:04 AM
Permit	On surface and minerals tab, surface damage assurance and surface surety ID are only needed when right to construct is bond. Please remove. Reference area map required.	3/17/2016 2:03:41 PM
Permit	Returned to draft per operator request to add attachment.	3/16/2016 10:08:14 AM

Total: 8 comment(s)