

FORM  
2A

Rev  
04/01

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:

400401441

Date Received:

04/12/2013

Oil and Gas Location Assessment

☒ New Location ☐ Amend Existing Location Location#: \_\_\_\_\_

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this 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. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:

**432958**

Expiration Date:

**05/18/2016**

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

1. 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.

2. Operator

Operator Number: 46685

Name: KINDER MORGAN CO2 CO LP

Address: 17801 HWY 491

City: CORTEZ State: CO Zip: 81321

3. Contact Information

Name: Carolyn Dunmire

Phone: (970) 564-9100

Fax: ( )

email: dunmire@ecosphere-services.com

4. Location Identification:

Name: YA Number: 8

County: MONTEZUMA

QuarterQuarter: NWNE Section: 12 Township: 37N Range: 18W Meridian: N Ground Elevation: 6744

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 832 feet FNL, from North or South section line, and 1816 feet FEL, from East or West section line.

Latitude: 37.483400 Longitude: -108.780260 PDOP Reading: 2.1 Date of Measurement: 04/05/2013

Instrument Operator's Name: R J CAFFEY

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: <input type="checkbox"/>	Drilling Pits: <input type="checkbox"/>	Wells: <input type="text" value="1"/>	Production Pits: <input type="checkbox"/>	Dehydrator Units: <input type="checkbox"/>
Condensate Tanks: <input type="checkbox"/>	Water Tanks: <input type="checkbox"/>	Separators: <input type="checkbox"/>	Electric Motors: <input type="checkbox"/>	Multi-Well Pits: <input type="checkbox"/>
Gas or Diesel Motors: <input type="checkbox"/>	Cavity Pumps: <input type="checkbox"/>	LACT Unit: <input type="checkbox"/>	Pump Jacks: <input type="checkbox"/>	Pigging Station: <input type="checkbox"/>
Electric Generators: <input type="checkbox"/>	Gas Pipeline: <input type="checkbox"/>	Oil Pipeline: <input type="checkbox"/>	Water Pipeline: <input type="checkbox"/>	Flare: <input type="checkbox"/>
Gas Compressors: <input type="checkbox"/>	VOC Combustor: <input type="checkbox"/>	Oil Tanks: <input type="checkbox"/>	Fuel Tanks: <input type="checkbox"/>	

Other: CO2 Pipeline

6. Construction:

Date planned to commence construction: 07/01/2013 Size of disturbed area during construction in acres: 5.76  
 Estimated date that interim reclamation will begin: 09/01/2013 Size of location after interim reclamation in acres: 3.01  
 Estimated post-construction ground elevation: 6743 Will a closed loop system be used for drilling fluids: Yes ☒ No ☐  
 Will salt sections be encountered during drilling: Yes ☒ No ☐ Is H2S anticipated? Yes ☒ No ☐  
 Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes ☒ No ☐  
 Mud disposal: Offsite ☒ Onsite ☐ Method: Land Farming ☐ Land Spreading ☐ Disposal Facility ☒  
 Other: De-watered by closed-loop

## 7. Surface Owner:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Address: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Address: \_\_\_\_\_ Email: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Date of Rule 306 surface owner consultation: 03/20/2013  
 Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian  
 Mineral Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian  
 The surface owner is: ☐ the mineral owner ☐ committed to an oil and gas lease  
                                   ☐ is the executer of the oil and gas lease ☐ the applicant  
 The right to construct the location is granted by: ☐ oil and gas lease ☐ Surface Use Agreement ☐ Right of Way  
   ☐ applicant is owner  
 Surface damage assurance if no agreement is in place: ☐ \$2000 ☐ \$5000 ☒ Blanket Surety ID 20080051

## 8. Reclamation Financial Assurance:

☒ Well Surety ID: 20110027 ☐ Gas Facility Surety ID: \_\_\_\_\_ ☐ Waste Mgnt. Surety ID: \_\_\_\_\_

## 9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒  
 Distance, in feet, to nearest building: 1561, public road: 1803, above ground utility: 1778,  
   railroad: 5280, property line: 496

## 10. 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

## 11. 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

## 12. Soils:

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.gov/> 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: 42. Glade-Pulpit complex, 3 to 9 percent slopes

NRCS Map Unit Name: 143. Wetherill loam, 1 to 3 percent slopes

NRCS Map Unit Name:

### 13. 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: 04/08/2013

List individual species: Utah Juniper (*Juniperus utahensis*), twoneedle pinyon (*Pinus edulis*), big sagebrush (*Artemisia tridentata*), antelope bitterbrush (*Purshia tridentata*), banana yucca (*Yucca baccata*), Indian ricegrass (*Achnatherum hymenoides*), cheatgrass (*Bromus tectorum*)

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):

### 14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☒ No ☐ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☒ No ☐ Yes

Distance (in feet) to nearest surface water: 985, water well: 1183, depth to ground water: 300

Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes

Is the location within a Rule 317B Surface Water Supply Area buffer zone:

☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. 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: ☐ No ☐ Yes

### 15. Comments:

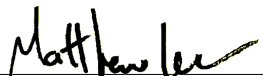
I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Date: 04/12/2013 Email: dunmire@ecosphere-services.com

Print Name: Carolyn Dunmire Title: Project Manager

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: 5/19/2013

CONDITIONS OF  
APPROVAL, IF ANY:

**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.**

**SITE SPECIFIC COAs:**

A closed loop system (which operator has indicated on the Form 2A) must be implemented during drilling. All cuttings generated during drilling with OBM/high chloride mud must be kept in containers or on a lined/bermed portion of the well pad; prior to analysis and/or offsite disposal.

The moisture content of any drill cuttings in a cuttings area or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.

Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, and start of hydraulic stimulation operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines

Operator must ensure 110 percent 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 maintained in good condition.

If the well is to be 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, storage vessel, or lined pit (only if an amended Form 2A has been submitted/approved and a Form 15 Earthen Pit Permit has been submitted/approved) 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 with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material.

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service.

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.

**Attachment Check List**

Att Doc Num	Name
2106596	CORRESPONDENCE
2518356	NRCS MAP UNIT DESC
400401441	FORM 2A SUBMITTED
400402888	ACCESS ROAD MAP
400402891	HYDROLOGY MAP
400402894	LOCATION DRAWING
400402895	REFERENCE AREA MAP
400402896	SENSITIVE AREA MAP
400402903	LOCATION PICTURES
400402914	REFERENCE AREA PICTURES
400402985	CONST. LAYOUT DRAWINGS
400403379	WELL LOCATION PLAT
400403778	PROPOSED BMPs

Total Attach: 13 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no public comment received.	5/13/2013 12:31:12 PM
OGLA	Initiated/Completed OGLA Form 2A review on 05-11-13 by Dave Kubeczko; placed fluid containment, spill/release BMPs, moisture content/containment cuttings, H2S training, notification, and flowback to tanks COAs on permit; no CPW; passed OGLA Form 2A review on 05-11-13 by Dave Kubeczko; fluid containment, spill/release BMPs, moisture content/containment cuttings, H2S training, notification, and flowback to tanks COAs.	5/11/2013 4:48:47 PM
LGD	Kinder Morgan is in the process of obtaining county permits for the construction of 1 well pad with one CO2 well. It does not appear that they will have any problems with obtaining required county permits.	4/25/2013 4:13:42 PM
Permit	This form has passed completeness.	4/15/2013 8:56:41 AM

Total: 4 comment(s)

### BMP

<u>Type</u>	<u>Comment</u>
Storm Water/Erosion Control	<p>Fiber wattles will encompass the entire periphery of the disturbed area.</p> <p>Tackifier will be added to the stored topsoil piles and areas of interim reclamation to inhibit erosion. The slope ratio of stockpiled soils will not exceed 3:1.</p> <p>Stormwater BMPs will be maintained and/or amended by Kinder Morgan as site conditions change during the construction and reclamation process.</p>
General Housekeeping	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.
Interim Reclamation	Disturbed portions of the well pad not necessary for operation and maintenance will be re-contoured and roughened to blend into the surrounding terrain. In addition, a landowner approved seed mix will be applied at the appropriate time using seeding and mulching methods outlined in the RSWMP. Weed control will be employed to help facilitate vegetation reestablishment.
Final Reclamation	All disturbed areas that are not necessary for operational procedures will be restored to at least 70 percent of pre-disturbance vegetative cover.
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 an access road (Length: 850', ROW: 50' ). The Drilling Facility Layout Map displays the areas that will be used for storage of building materials, equipment, and soil.</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>

Total: 5 comment(s)