

**FORM
2A**Rev
04/01State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



DE ET OE ES

Document Number:

400127197

Oil and Gas Location Assessment☐ New Location ☒ Amend Existing Location Location#: 335965

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:

335965

Expiration Date:

03/08/2014☒ 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: 10091

Name: BERRY PETROLEUM COMPANY

Address: 1999 BROADWAY STE 3700

City: DENVER State: CO Zip: 80202

3. Contact Information

Name: Kallasandra Moran

Phone: (303) 999-4225

Fax: (303) 999-4325

email: kmoran@bry-consultant.com

4. Location Identification:Name: Chevron Number: CD-29 596County: GARFIELDQuarter: NENW Section: 29 Township: 5S Range: 96W Meridian: 6 Ground Elevation: 7881

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: 1226 feet FNL, from North or South section line, and 1286 feet FWL, from East or West section line.Latitude: 39.590083 Longitude: -108.197411 PDOP Reading: 2.8 Date of Measurement: 12/06/2010Instrument Operator's Name: Robert Wood / Construction Surveys Inc.**5. Facilities (Indicate the number of each type of oil and gas facility planned on location):**

Special Purpose Pits: <input type="text" value="0"/>	Drilling Pits: <input type="text" value="0"/>	Wells: <input type="text" value="11"/>	Production Pits: <input type="text" value="1"/>	Dehydrator Units: <input type="text" value="0"/>
Condensate Tanks: <input type="text" value="3"/>	Water Tanks: <input type="text" value="2"/>	Separators: <input type="text" value="2"/>	Electric Motors: <input type="text" value="0"/>	Multi-Well Pits: <input type="text" value="0"/>
Gas or Diesel Motors: <input type="text" value="0"/>	Cavity Pumps: <input type="text" value="0"/>	LACT Unit: <input type="text" value="0"/>	Pump Jacks: <input type="text" value="0"/>	Pigging Station: <input type="text" value="0"/>
Electric Generators: <input type="text" value="0"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text" value="0"/>	Water Pipeline: <input type="text" value="1"/>	Flare: <input type="text" value="0"/>
Gas Compressors: <input type="text" value="0"/>	VOC Combustor: <input type="text" value="0"/>	Oil Tanks: <input type="text" value="0"/>	Fuel Tanks: <input type="text" value="0"/>	

Other: Drilling rig, temporary office and temporary housing on location for approximately 10 days per well

6. Construction:

Date planned to commence construction: 06/01/2011 Size of disturbed area during construction in acres: 6.20
Estimated date that interim reclamation will begin: 06/15/2013 Size of location after interim reclamation in acres: 1.19
Estimated post-construction ground elevation: 7878 Will a closed loop system be used for drilling fluids: Yes ☒
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: Total Closed Loop System

7. Surface Owner:

Name: _____ Phone: _____
Address: _____ Fax: _____
Address: _____ Email: _____
City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: 01/26/2011
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 _____

8. Reclamation Financial Assurance:

☒ Well Surety ID: 20040105 ☒ Gas Facility Surety ID: 20040107 ☐ 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: 8462, public road: 25351, above ground utilit: 24746
, railroad: 51672, property line: 2741

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: 56 - Parachute-Irigul-Rhone association, 25 to 50 percent slopes (See attached.)

NRCS Map Unit Name: _____

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: 12/06/2010

List individual species: See attached NRCS Rangeland Productivity and Plant Composition.

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: 590, water well: 21645, depth to ground water: 28

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:

The closest water well (as plated) did not have depth to ground water data available. The closest water well with depth to ground water data is an Unnamed Union Oil Company well (Permit # 25482-F / Receipt # 0220150J). I certify that there have been no changes on land use, lease description. Pad has been constructed with 4 producing/existing wells on location. Conductors have been set. No rig on site. Reference well used for footages is the Chevron 29-3D - Producing (05-045-17201). The APD will NOT require expansion / additional surface disturbance of pad. The location does not require a variance from any of the rules listed in Rule 306.d. (1). (A). (ii). The location is in a restricted surface occupancy area for sage grouse production. The location is in a sensitive wildlife habitat area for sage grouse production and elk production. Location photos include snow, location photos without snow will be provided in Spring 2011. A Form 15 - Earthen Pit Report/Permit is being filed in concurrence with this re-file, please see Greg Deranleau for pit status/questions.

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

Signed: _____ Date: 01/26/2011 Email: kmoran@bry-consultant.com

Print Name: Kallasandra M. Moran 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: David S. Neslin Director of COGCC Date: 3/9/2011

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.

GENERAL ROAN RIM COAs:

Notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to start of construction.

Reserve pit, or any other pit used to contain/hold fluids, if constructed, must be lined or a closed loop system (as indicated on the Form 2A Permit application by operator in Section 6. Construction) must be implemented during drilling.

The nearby hillside must be monitored for any day-lighting of drilling fluids throughout the drilling of the surface casing interval.

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.

The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, the drill cuttings must also meet the applicable standards of table 910-1.

No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

Flowback and stimulation fluids must be sent to tanks to allow the sand to settle out before the fluids can be placed into any pipeline or pit located on the well pad. The flowback and stimulation fluid tanks 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 (per Rule 604.a.(4)). In addition, operator must implement odor controls during fracing operations.

Notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to start of fracing operations.

Berms or other containment devices shall be constructed in compliance with Rule 604.a.(4) around crude oil, condensate, and produced water storage tanks.

NOTICE TO OPERATORS (NTO) DRILLING WELLS ON THE ROAN PLATEAU IN GARFIELD COUNTY:

Comply with all provisions of the June 12, 2008 Notice to Operators (NTO) Drilling Wells Within $\frac{3}{4}$ Mile of the Rim of the Roan Plateau in Garfield County – Pit Design, Construction, and Monitoring Requirements. At a minimum, the following condition of approval (COA) will apply:

All pits (if constructed) must be lined.

SENSITIVE AREA (CLOSE PROXIMITY TO SURFACE WATER) COAs:

Location is in a sensitive area because of close proximity to surface water, therefore, operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations.

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

Attachment Check List

Att Doc Num	Document Name	attached ?	
<u>Attachment Checklist</u>			
	317B Notification	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
400127223	Access Road Map	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	CDP Conditions	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
400127225	Const Layout Drawings	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127226	Hydrology Map	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127227	Location Drawing	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127719	Location Pictures	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127228	Multi-well Plan	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127234	NRCS Map Unit Desc	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	Other	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
400127232	Proposed BMPs	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127229	Reference Area Map	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127720	Reference Area Pictures	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	Section 404 Permit	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	Sensitive Area Data	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	Sensitive Area Map	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>Other Attachments</u>			
2033627	CORRESPONDENCE	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127197	FORM 2A SUBMITTED	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127225	CONST. LAYOUT DRAWINGS	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127230	MINERAL LEASE MAP	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
400127718	30 DAY NOTICE LETTER	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
DOW	<p>The BMPs as submitted by the operator are applicable to the site. CDOW emphasizes the importance of netting and fencing of any fluid pits and cutting trenches if necessary to exclude wildlife because Berry will be using oil based drilling mud.</p> <p>Per Rule 902.D.Oil based mud poses a higher than typical significant adverse environmental hazard to wildlife, migratory birds, domestic animals or members of the general public.</p> <p>by Michael Warren on Tuesday, March 8, 2011 at 3:30 P.M.</p>	3/8/2011 3:34:34 PM
OGLA	<p>Initiated/Completed OGLA Form 2A review on 02-07-11 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, monitoring hillside, lined pits/closed loop, no pit in fill, flowback to tanks, tank berming, cuttings low moisture content, and Roan Rim COAs from operator on 02-07-11; received acknowledgement of COAs from operator on 02-07-10; passed by CDOW on 03-08-11 with operator submitted BMPs (with permit application) and WMP acceptable; passed OGLA Form 2A review on 03-08-11 by Dave Kubeczko; fluid containment, spill/release BMPs, monitoring hillside, lined pits/closed loop, no pit in fill, flowback to tanks, tank berming, cuttings low moisture content, and Roan Rim COAs.</p>	2/7/2011 10:24:35 AM

Total: 2 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Drilling/Completion Operations	<p>The following list of Best Management Practices (BMP's) that will be implemented by Berry Petroleum Company during the pad construction, well drilling, well completion, natural gas production and reclamation phases of activity on the Chevron CD-29 596 well Pad.</p> <p>A total of 11 wells have and/or will be directionally drilled from the CD-29 well pad. Directional drilling has enabled Berry Petroleum Company to reduce the number of well pads required for gas recovery and will minimize surface damage.</p> <p>The CD-29 well pad will be constructed adjacent to an existing road. This eliminates the need to construct an additional road for access and avoids additional surface disturbance.</p> <p>In general, Berry Petroleum Company will comply with all applicable federal, state and local statues, rules, regulations and ordinances, including those of OSHA, the COGCC and the CDPHE. Relating to safety and the environment.</p> <p>During construction of the well pad, topsoil will be isolated from other soils and placed and stacked per COGCC requirements. All cuts, fill slopes, pits and topsoil piles will be stabilized and revegetated immediately following construction.</p> <p>The pad will be constructed in compliance with CDPHE Stormwater Discharge regulations.</p> <p>The reserve/completion pit will be fenced/flagged and/or netted to prevent entry of wildlife (including birds) and livestock.</p> <p>Bear proof dumpsters/trash cans will be used on the location for solid/food waste disposal.</p> <p>Noxious weeds will be controlled.</p> <p>Temporary housing for the drill rig crews will meet all Garfield County regulations. The housing quarters will receive 24/7 supervision by Berry Petroleum Company.</p> <p>Production tanks shall be placed on a non-permeable liner and surrounded by a metal containment wall at least 3 feet in height.</p>

Total: 1 comment(s)