


FORM 2A Rev 04/01	State of Colorado Oil and Gas Conservation Commission 1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">DE</td> <td style="width: 25%;">ET</td> <td style="width: 25%;">OE</td> <td style="width: 25%;">ES</td> </tr> </table> <p style="text-align: center;">Document Number: 400093108</p>	DE	ET	OE	ES																					
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Oil and Gas Location Assessment			<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Location ID: 335865 </div> <div style="border: 1px solid black; padding: 5px;"> Expiration Date: 10/27/2013 </div>																									
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div> <input type="checkbox"/> New Location </div> <div> <input checked="" type="checkbox"/> Amend Existing Location </div> <div> Location#: <u>335865</u> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> 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. </div>																												
<input checked="" type="checkbox"/> This location assessment is included as part of a permit application.																												
1. CONSULTATION <input type="checkbox"/> This location is included in a Comprehensive Drilling Plan. CDP # _____ <input type="checkbox"/> This location is in a sensitive wildlife habitat area. <input type="checkbox"/> This location is in a wildlife restricted surface occupancy area. <input type="checkbox"/> This location includes a Rule 306.d.(1)A.ii. variance request.																												
2. Operator Operator Number: <u>10091</u> Name: <u>BERRY PETROLEUM COMPANY</u> Address: <u>1999 BROADWAY STE 3700</u> City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		3. Contact Information Name: <u>Kallasandra Moran</u> Phone: <u>(303) 999-4225</u> Fax: <u>(303) 999-4325</u> email: <u>kmoran@bry-consultant.com</u>																										
4. Location Identification: Name: <u>Long Ridge</u> Number: <u>M15</u> County: <u>GARFIELD</u> QuarterQuarter: <u>SWSW</u> Section: <u>15</u> Township: <u>5S</u> Range: <u>95W</u> Meridian: <u>6</u> Ground Elevation: <u>8355</u> 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: <u>1231</u> feet <u>FSL</u> , from North or South section line, and <u>504</u> feet <u>FWL</u> , from East or West section line. Latitude: <u>39.609938</u> Longitude: <u>-108.048167</u> PDOP Reading: <u>2.1</u> Date of Measurement: <u>06/08/2010</u> Instrument Operator's Name: <u>Ivan Martin/Construction Surveys</u>																												
5. Facilities (Indicate the number of each type of oil and gas facility planned on location): <table style="width: 100%; border: none;"> <tr> <td>Special Purpose Pits: <input type="text"/></td> <td>Drilling Pits: <input type="text"/></td> <td>Wells: <input type="text" value="10"/></td> <td>Production Pits: <input type="text"/></td> <td>Dehydrator Units: <input type="text" value="3"/></td> </tr> <tr> <td>Condensate Tanks: <input type="text" value="5"/></td> <td>Water Tanks: <input type="text" value="1"/></td> <td>Separators: <input type="text" value="1"/></td> <td>Electric Motors: <input type="text"/></td> <td>Multi-Well Pits: <input type="text"/></td> </tr> <tr> <td>Gas or Diesel Motors: <input type="text"/></td> <td>Cavity Pumps: <input type="text"/></td> <td>LACT Unit: <input type="text"/></td> <td>Pump Jacks: <input type="text"/></td> <td>Pigging Station: <input type="text"/></td> </tr> <tr> <td>Electric Generators: <input type="text"/></td> <td>Gas Pipeline: <input type="text" value="1"/></td> <td>Oil Pipeline: <input type="text"/></td> <td>Water Pipeline: <input type="text" value="1"/></td> <td>Flare: <input type="text"/></td> </tr> <tr> <td>Gas Compressors: <input type="text"/></td> <td>VOC Combustor: <input type="text"/></td> <td>Oil Tanks: <input type="text"/></td> <td>Fuel Tanks: <input type="text"/></td> <td></td> </tr> </table> Other: <u>Seperators used 2 quad dehydrators, 1 dual dehydrator, 1 seperator. Drilling rig, temporary office and temporary housing on location for approximately 10 days per well.</u>				Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text"/>	Wells: <input type="text" value="10"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text" value="3"/>	Condensate Tanks: <input type="text" value="5"/>	Water Tanks: <input type="text" value="1"/>	Separators: <input type="text" value="1"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>	Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text"/>	Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text" value="1"/>	Flare: <input type="text"/>	Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text"/>	
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6. Construction:

Date planned to commence construction: 01/01/2011 Size of disturbed area during construction in acres: 6.07
Estimated date that interim reclamation will begin: 05/01/2011 Size of location after interim reclamation in acres: 1.21
Estimated post-construction ground elevation: 8347 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: Encana Oil & Gas USA, Inc Phone: 303-623-2300
Address: 370 17th Street Fax: 303-623-2400
Address: Suite 1700 Email: _____
City: Denver State: CO Zip: 80202-5632 Date of Rule 306 surface owner consultation: 09/16/2010
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 20040106

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: 18702, public road: 20760, above ground utilit: 18776
, railroad: 50351, property line: 2545

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 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: 53 - Parachute-Rhone loams, 5 - 30 percent slopes

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: 06/08/2010

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: 1253, water well: 9938, depth to ground water: 470

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 cited above is an unnamed Mobil Mining Company well. (Permit # 133425 / Receipt # 0232223M) I certify that there have been no changes on land use, lease description.

Pad has been constructed, 4 wells are TD'd, waiting on completion.

Berry Petroleum Company will be doing closed loop operations, no pits are required. No rig on site.

Reference well used for footages is the Long Ridge 04A M15 595 well.

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 NOT in a restricted surface occupancy area.

The location is NOT in a sensitive wildlife habitat area.

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

Signed: _____ Date: 09/27/2010 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: 10/28/2010

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.

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.

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.

Any pit constructed to hold fluids (reserve pit, production pit; except for flare pit) must be lined.

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., BMPs associated with stormwater management) sufficiently protective of the nearby surface water. If fluids are conveyed via pipeline, operator must implement best management practices to contain any unintentional release of fluids.

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

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 must be lined.

Attachment Check List

Att Doc Num	Name
2033458	CORRESPONDENCE
400093108	FORM 2A APPROVED
400093123	ACCESS ROAD MAP
400093124	CONST. LAYOUT DRAWINGS
400093125	HYDROLOGY MAP
400093126	LOCATION DRAWING
400093128	MULTI-WELL PLAN
400093129	REFERENCE AREA MAP
400093130	REFERENCE AREA PICTURES
400093131	LOCATION PICTURES
400093132	NRCS MAP UNIT DESC
400093133	OTHER
400093900	30 DAY NOTICE LETTER
400104495	FORM 2A SUBMITTED

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Initiated/Completed OGLA Form 2A review on 09-29-10 by Dave Kubeczko; requested clarifications and acknowledgement of fluid containment, spill/release BMPs, monitoring of hillside, lined pits/closed loop, all pits lined, no pit in fill, cuttings low moisture COAs and Roan Rim NTO from operator on 09-29-10; received clarifications and acknowledgement of COAs from operator on 09-29-10; no CDOW; passed OGLA Form 2A review on 10-19-10 by Dave Kubeczko; fluid containment, spill/release BMPs, monitoring of hillside, lined pits/closed loop, all pits lined, no pit in fill, cuttings low moisture COAs and Roan Rim NTO.	9/29/2010 12:23:20 PM

Total: 1 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 Long Ridge M15 595 well Pad.</p> <p>A total of 10 wells will be directionally drilled from the M15 well pad (4 wells TD'd, waiting on completion, 6 proposed wells). 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 M15 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 statutes, 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>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)