

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:  
400359604

Date Received:  
12/19/2012

Oil and Gas Location Assessment

New Location  Amend Existing Location Location#: 335928

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:  
**335928**  
Expiration Date:  
**02/21/2016**

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: 100185  
 Name: ENCANA OIL & GAS (USA) INC  
 Address: 370 17TH ST STE 1700  
 City: DENVER State: CO Zip: 80202-5632

3. Contact Information

Name: JENNIFER LIND  
 Phone: (720) 876-5890  
 Fax: (720) 876-6890  
 email: JENNIFER.LIND@ENCANA.COM

4. Location Identification:

Name: DWU 64S96W / Number: 34 SWNW  
 County: GARFIELD  
 QuarterQuarter: SWNW Section: 34 Township: 4S Range: 96W Meridian: 6 Ground Elevation: 8323

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: 2108 feet FNL, from North or South section line, and 1009 feet FWL, from East or West section line.  
 Latitude: 39.660281 Longitude: -108.160547 PDOP Reading: 2.5 Date of Measurement: 03/14/2007  
 Instrument Operator's Name: ROBERT KAY

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="checkbox" value="34"/>	Production Pits: <input type="checkbox"/>	Dehydrator Units: <input type="checkbox" value="3"/>
Condensate Tanks: <input type="checkbox"/>	Water Tanks: <input type="checkbox" value="1"/>	Separators: <input type="checkbox" value="3"/>	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" value="2"/>	Gas Pipeline: <input type="checkbox"/>	Oil Pipeline: <input type="checkbox"/>	Water Pipeline: <input type="checkbox"/>	Flare: <input type="checkbox"/>
Gas Compressors: <input type="checkbox" value="2"/>	VOC Combustor: <input type="checkbox" value="1"/>	Oil Tanks: <input type="checkbox"/>	Fuel Tanks: <input type="checkbox"/>	

Other: WELL COUNT INCLUDES 2 EXISTING WELLS AND 32 PROPOSED WELLS. IN ADDITION TO EQUIPMENT LISTED ABOVE, 3 METER HOUSES AND 1 12'X12' CONTROL BUILDING WILL BE PLACED AT THIS LOCATION AT THE TIME THE WELLS ARE DRILLED.

**6. Construction:**

Date planned to commence construction: 06/01/2013 Size of disturbed area during construction in acres: 10.37  
 Estimated date that interim reclamation will begin: 04/01/2015 Size of location after interim reclamation in acres: 2.41  
 Estimated post-construction ground elevation: 8324 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: RECYCLE AND BURY

**7. Surface Owner:**

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Address: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Address: \_\_\_\_\_ Email: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Date of Rule 306 surface owner consultation: \_\_\_\_\_  
 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: \_\_\_\_\_  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: 19008, public road: 34320, above ground utility: 23232,  
 railroad: 70752, property line: 2455

**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-RHOME LOAMS, 5 TO 30 PERCENT SLOPES

NRCS Map Unit Name: 52 - PARACHUTE LOAM, 25 TO 65 PERCENT SLOPES

NRCS Map Unit Name: 63 - SILAS LOAM, 3 TO 12 PERCENT SLOPES

### 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: 08/13/2010

List individual species: \_\_\_\_\_

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: 788, water well: 10567, depth to ground water: 107

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:

PLEASE NOTE THAT ENCANA IS THE SURFACE OWNER AT THIS LOCATION. POINT OF REFERENCE FOR DISTANCE TO EXISTING FEATURES IS EXISTING CP01B-33 WELL LOCATION. THE AREA SOUTHWEST OF THE PAD WILL SERVE AS THE REFERENCE AREA FOR RECLAMATION. REFERENCE AREA PHOTOS WILL BE COMPLETED DURING GROWING SEASON. AMENDED 2A SUBMITTED TO ADD WELLS TO PAD.

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

Signed: \_\_\_\_\_ Date: 12/19/2012 Email: JENNIFER.LIND@ENCANA.COM

Print Name: JENNIFER LIND Title: REGULATORY ANALYST

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: 2/22/2013

**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:**

Notify the COGCC 48 hours prior to start of any new 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 ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations (as shown on the Construction Layout Drawings 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 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.

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

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.

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 Permitted 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.

Berms or other containment devices shall be constructed to be sufficiently impervious (preferably corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.

**Attachment Check List**

Att Doc Num	Name
2106500	CORRESPONDENCE
400359604	FORM 2A SUBMITTED
400359659	MULTI-WELL PLAN
400359660	HYDROLOGY MAP
400360235	NRCS MAP UNIT DESC
400360463	LOCATION PICTURES
400360464	LOCATION DRAWING
400360465	CONST. LAYOUT DRAWINGS
400360466	ACCESS ROAD MAP

Total Attach: 9 Files

**General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Permit	Two wells have offset problems w/Order 510-13. Operator is considering how to handle the issue. 2/14/13 Working on Operator's response, just received. Added Doc # 400369732, 400369810, 400369717 and 400369703 to Related Forms as Encana has worked out offset problems. 2/19/13. OGLA has approved 2A.	1/30/2013 8:54:14 AM
OGLA	Initiated/Completed OGLA Form 2A review on 01-21-13 by Dave Kubeczko; requested acknowledgement of fluid containment and spill/release BMP, frac tank overflow protection, cuttings moisture, and tank berming COAs from operator on 01-21-13; received acknowledgement of COAs from operator on 01-24-13; changed to sensitive area due to Roan Rim Uinta Formation at surface; passed by CPW on 12-21-12 with WMP acceptable; passed OGLA Form 2A review on 01-24-13 by Dave Kubeczko; fluid containment and spill/release BMP, frac tank overflow protection, pipeline testing, and equipment secondary containment COAs.	1/21/2013 12:20:22 PM
Permit	Added related APD's. Corrected #of wells to 34 (only 2 existing wells) per oper. Added comment that amended 2A submitted to add wells to pad.	1/11/2013 9:07:54 AM
LGD	Passed DB	12/27/2012 11:13:03 AM
DOW	This well pad is located within the boundary of the approved North Parachute Ranch-CPW Wildlife Mitigation Plan. The BMPs were developed and agreed upon in the consultation and development of the Wildlife Mitigation Plan by EnCana and CPW. CPW affirms that the BMPs and conditions of approval of the Wildlife Mitigation Plan suffice to address wildlife mitigation concerns.  Approved Jim Komatinsky 12-21-2012	12/21/2012 3:56:54 PM

Total: 5 comment(s)

## BMP

<u>Type</u>	<u>Comment</u>
Wildlife	<ul style="list-style-type: none"><li>• Install trench plugs (sloped to allow wildlife or livestock to exit the trench should they enter) at known wildlife or livestock trails to allow safe crossing on long spans of open trench, where appropriate, economically and technically feasible.</li><li>• Perform biological surveys (on-site) for each new development, using the most recent data sets for wildlife and aquatic resources.</li><li>• Perform pre-disturbance surveys when the on-site inspection and commencement of disturbance occur in different field seasons using the most recent data sets for wildlife and aquatic resources.</li><li>• Utilize the Encana Wildlife Resources Matrix to identify and document (where appropriate) potential impacts or concerns during the project planning phase for proposed drilling operations and construction of roads, pads and pipelines.</li><li>• Use enclosed, locking garbage receptacles or implement a strict daily trash removal regime on each temporary or permanent work location.</li></ul>
Construction	<ul style="list-style-type: none"><li>• Use multiple gathering lines placed in a single trench to minimize disturbance and construction, where appropriate, economically and technically feasible.</li><li>• Install pipeline crossings at right angles to the drainages, wetlands, and perennial water bodies, where appropriate, economically and technically feasible.</li></ul>
Site Specific	<ul style="list-style-type: none"><li>• Use solar panels as an alternative energy source for on-location production equipment, where appropriate, economically and technically feasible.</li><li>• Maintain a minimum of five feet of soil cover between the pipeline and the lowest point of the drainage or water body channel.</li><li>• Prohibit Encana employees and contractors from carrying projectile weapons on Encana property, except during company organized events.</li><li>• Prohibit pets on Encana property.</li><li>• Strategically apply fugitive dust control measures, including enforcing established speed limits on Encana private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.</li></ul>

Total: 3 comment(s)