

**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:

400463409

Date Received:

08/20/2013

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:

434592

Expiration Date:

10/07/2016☒ 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.

OperatorOperator Number: 100185Name: ENCANA OIL & GAS (USA) INCAddress: 370 17TH ST STE 1700City: DENVER State: CO Zip: 80202-5632**Contact Information**Name: JENNIFER LINDPhone: (720) 876-5890Fax: (720) 876-6890email: JENNIFER.LIND@ENCANA.COM**RECLAMATION FINANCIAL ASSURANCE**

- ☒ Plugging and Abandonment Bond Surety ID: 20100017 ☐ Gas Facility Surety ID: _____
- ☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATIONName: E Number: C19 397County: RIO BLANCOQuarterQuarter: NENW Section: 19 Township: 3S Range: 97W Meridian: 6 Ground Elevation: 7133

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: 268 feet FNL from North or South section line1671 feet FWL from East or West section lineLatitude: 39.780992 Longitude: -108.326436PDOP Reading: 1.8 Date of Measurement: 04/26/2013Instrument Operator's Name: ROBERT KAY

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID # FORM 2A DOC #

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	44	Oil Tanks		Condensate Tanks	1	Water Tanks		Buried Produced Water Vaults	
Drilling Pits		Production Pits		Special Purpose Pits		Multi-Well Pits		Temporary Large Volume Above Ground Tanks	
Pump Jacks		Separators	6	Injection Pumps		Cavity Pumps			
Gas or Diesel Motors		Electric Motors		Electric Generators	2	Fuel Tanks		Gas Compressors	3
Dehydrator Units	1	Vapor Recovery Unit		VOC Combustor	2	Flare		LACT Unit	
								Pigging Station	

OTHER FACILITIES

Other Facility Type

Number

condensate Pump	1
Coolers	11
Electrical Control Building	2
Meter Houses	14
Fuel gas conditioning skid	1

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Gathering Pipelines: up to 2 gas lines, up to 4 water lines
Pipelines from well pad to compression pad: up to 4 gas lines

CONSTRUCTION

Date planned to commence construction: 01/01/2014 Size of disturbed area during construction in acres: 23.79
Estimated date that interim reclamation will begin: 08/01/2016 Size of location after interim reclamation in acres: 5.24
Estimated post-construction ground elevation: 7132

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes
Is H₂S anticipated? No
Will salt sections be encountered during drilling: No
Will salt based mud (>15,000 ppm Cl) be used? No
Will oil based drilling fluids be used?

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: ONSITE

Drilling Fluids Disposal Method: Other

Cutting Disposal: _____

Cuttings Disposal Method: _____

Other Disposal Description:

RECYCLE AND BURY

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: BLM WRFO

Phone: 970-898-3805

Address: 220 E. MARKET ST.

Fax: _____

Address: _____

Email: _____

City: MEEKER State: CO Zip: 81641

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: _____

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 _____

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

Distance to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 1200 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 4495 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.

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: _____

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: 64 - PICEANCE FINE SANDY LOAM, 5 TO 15 PERCENT SLOPES

NRCS Map Unit Name: 70 - REDCREEK-RENT SAC COMPLEX, 5 TO 30 PERCENT SLOPES

NRCS Map Unit Name: _____

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: 04/26/2013

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): _____

WATER RESOURCES

Is this a sensitive area: ☒ No ☐ Yes

Distance to nearest

downgradient surface water feature: 610 Feet

water well: 5803 Feet

Estimated depth to ground water at Oil and Gas Location 202 Feet

Basis for depth to groundwater and sensitive area determination:

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: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule _____

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

SURFACE OWNER AT THIS LOCATION IS BLM. The reference area is located immediately adjacent to the well pad to the north (as shown on the north well pad location picture) on undisturbed ground.

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

Signed: _____ Date: 08/20/2013 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:  Director of COGCC Date: 10/8/2013

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

The moisture content of any 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, if the drill cuttings are to be left onsite, they 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.

Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network. Operator shall 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 testing surface poly/sterel or buried poly/steel pipelines.

Operator must implement best management practices to contain any unintentional release of fluids along all portions of any surface pipeline route, if constructed, where temporary pumps and other necessary equipment are located.

Operator must routinely inspect the entire length of any surface pipeline, if constructed to ensure integrity. Operator shall conduct daily inspections of surface poly pipeline routes for leaks during active transfer of fluids. Inspections shall be conducted by viewing the length of the pipeline; operator will endeavor to minimize surface disturbance during pipeline monitoring. The operator shall maintain records of inspections, findings and repairs, if necessary, for the life of the pipelines.

Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing any surface or buried pipelines. This will reduce surface disturbance and fragmentation of wildlife habitat in the area.

	<p>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).</p> <p>As required for Groundwater Baseline Sampling; Operator shall comply with Rule 609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING: c. Inability to locate an Available Water Source. Prior to spudding, an operator may request an exception from the requirements of this Rule 609 by filing a Form 4 Sundry Notice for the Director's review and approval if: (1) No Available Water Sources are located within one-half (1/2) mile of a proposed Oil and Gas Well, Multi-Well Site, or Dedicated Injection Well;</p>
	<p>Passes Completeness.</p>
	<p>Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines or buried permanent pipelines.</p> <p>Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations (as shown on the Construction Layout Drawings and Location Drawing attachments); 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.</p> <p>The access road will be constructed and maintained as to not allow any 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>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.</p>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	General Housekeeping	<ul style="list-style-type: none"> • Prohibit Encana employees and contractors from carrying projectile weapons on Encana property, except during company organized events. • Prohibit pets on Encana property.
2	Wildlife	<ul style="list-style-type: none"> • 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. • Perform biological surveys (on-site) for each new development, using the most recent data sets for wildlife and aquatic resources. • 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. • 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. • Use enclosed, locking garbage receptacles or implement a strict daily trash removal regime on each temporary or permanent work location.
3	Dust control	<ul style="list-style-type: none"> • 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.
4	Construction	<ul style="list-style-type: none"> • Use multiple gathering lines placed in a single trench to minimize disturbance and construction, where appropriate, economically and technically feasible. • Install pipeline crossings at right angles to the drainages, wetlands, and perennial water bodies, where appropriate, economically and technically feasible. • Maintain a minimum of five feet of soil cover between the pipeline and the lowest point of the drainage or water body channel. • Use solar panels as an alternative energy source for on-location production equipment, where appropriate, economically and technically feasible.

Total: 4 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1792861	CONST. LAYOUT DRAWINGS
2106773	CORRESPONDENCE
400463409	FORM 2A SUBMITTED
400469332	LOCATION PICTURES
400469334	LOCATION DRAWING
400469336	CONST. LAYOUT DRAWINGS
400469393	ACCESS ROAD MAP
400469394	MULTI-WELL PLAN
400469395	HYDROLOGY MAP
400469397	NRCS MAP UNIT DESC

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed. No LGD or public comments, DPW comments.	10/2/2013 7:21:12 AM
OGLA	Initiated/Completed OGLA Form 2A review on 09-18-13 by Dave Kubeczko; requested acknowledgement of notification, GW baseline sampling, fluid containment, spill/release BMPs, sediment control access road, dust control, tank berming, cuttings low moisture content, pipeline, and flowback to tanks COAs from operator on 09-18-13; received acknowledgement of COAs from operator on 09-20-13; changed size of disturbance at construction from 15.29 acres to 23.79 acres and size of location after interim reclamation from 4.40 acres to 5.24 acres (based on Construction Layout Drawings calculations); passed by CPW on 09-09-13 with operator submitted wildlife BMPs and BLM stipulations and COAs acceptable; passed Form 2A review on 09-23-13 by Dave Kubeczko; notification, GW baseline sampling, fluid containment, spill/release BMPs, sediment control access road, dust control, tank berming, cuttings low moisture content, pipeline, and flowback to tanks COAs.	9/18/2013 2:26:17 PM
Permit	Requested review of the distance to the nearest property line. Form 2A says 4495' while the Form 2's are some 700' less than that.	9/17/2013 9:30:06 AM
DOW	<p>Wildlife concerns: The proposed pad location is within Elk Winter Concentration Area SWH, and Elk Production Area SWH. An assessment of this area has shown minimal use by elk during winter months and through the spring calving season. Therefore, no seasonal timing restrictions are recommended by CPW at this time. Based on the above wildlife concerns, CPW recommends the following BMPs in addition to the BMPs already provided by the operator:</p> <ol style="list-style-type: none"> 1. Limit post-development well site visitations to the minimum required for normal operations between December 1 and April 15 in elk winter concentration areas. Required post-development well site visits during this timeframe should be targeted between the hours of 10 am and 3pm. 2. Include a weed management plan and implement the plan as part of reclamation. 3. Avoid aggressive non-native grasses and shrubs in mule deer, elk and pronghorn antelope habitat restoration. 4. Reclaim mule deer, elk, and pronghorn antelope habitats with native shrubs, grasses, and forbs appropriate to the ecological site disturbed. <p>Approved: Taylor Elm, 9/9/2013, 10:58</p>	9/9/2013 10:55:25 AM
Permit	Pending other staff approvals.	8/30/2013 1:57:42 PM

Total: 5 comment(s)