

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:

400651431

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Date Received:

01/12/2015

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:

**446290**

Expiration Date:

**06/21/2019**

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.

Operator

Operator Number: 100185

Name: ENCANA OIL & GAS (USA) INC

Address: 370 17TH ST STE 1700

City: DENVER    State: CO    Zip: 80202-5632

Contact Information

Name: Bonnie Lamond

Phone: (720) 876-5156

Fax: ( )

email: Toby.Sachen@encana.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20100017     Gas Facility Surety ID: \_\_\_\_\_

Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Morgan Hills

Number: 7H-A168

County: WELD

Quarter: NENE    Section: 7    Township: 1N    Range: 68W    Meridian: 6    Ground Elevation: 5021

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: 368 feet FNL from North or South section line

359 feet FEL from East or West section line

Latitude: 40.071987    Longitude: -105.038677

PDOP Reading: 1.9    Date of Measurement: 08/25/2014

Instrument Operator's Name: Ryan Christi

## 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 #**

Well Site is served by Production Facilities

435499

400480337

## FACILITIES

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

Wells	<u>9</u>	Oil Tanks*	<u>    </u>	Condensate Tanks*	<u>    </u>	Water Tanks*	<u>    </u>	Buried Produced Water Vaults*	<u>    </u>
Drilling Pits	<u>    </u>	Production Pits*	<u>    </u>	Special Purpose Pits	<u>    </u>	Multi-Well Pits*	<u>    </u>	Modular Large Volume Tanks	<u>    </u>
Pump Jacks	<u>    </u>	Separators*	<u>9</u>	Injection Pumps*	<u>    </u>	Cavity Pumps*	<u>    </u>	Gas Compressors*	<u>    </u>
Gas or Diesel Motors*	<u>    </u>	Electric Motors	<u>    </u>	Electric Generators*	<u>    </u>	Fuel Tanks*	<u>    </u>	LACT Unit*	<u>    </u>
Dehydrator Units*	<u>    </u>	Vapor Recovery Unit*	<u>    </u>	VOC Combustor*	<u>    </u>	Flare*	<u>    </u>	Pigging Station*	<u>    </u>

## OTHER FACILITIES\*

### Other Facility Type

### Number

Water Pump Skid	1
Sales Gas Meter	1
Produced Oil Pig Launcher	1
Oil Pump Skid (with 3 pumps)	1
Sales Gas Pig Launcher	1
Instrument Air Skid/Electric Rack	1
Oil Surge Drum	1
Water Surge Drum	1

\*Those facilities indicated by an asterisk (\*) shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

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

Oil, water, and gas will flow combined to the Hub facility approximately 5 miles southeast from the proposed pad using DOT 195 pipeline. Gas pipeline will be determined by KMG at a later date.

## CONSTRUCTION

Date planned to commence construction: 09/01/2016 Size of disturbed area during construction in acres: 11.00

Estimated date that interim reclamation will begin: 09/01/2017 Size of location after interim reclamation in acres: 3.50

Estimated post-construction ground elevation: 5026

## DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H<sub>2</sub>S 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? No

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Land application

Cutting Disposal: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

We currently have two sites that are being used for land application. Both are approved through the COGCC and have facility IDs: Bella 18, #431606 and McDonald Farm, #431609.

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: Mary Alice Billings

Phone: \_\_\_\_\_

Address: 2246 Riverside Drive

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Lyons State: CO Zip: 80502

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: Yes

The right to construct this Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_

Date of Rule 306 surface owner consultation 11/17/2014

## 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**

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	<b>From WELL</b>	<b>From PRODUCTION FACILITY</b>
Building:	506 Feet	355 Feet
Building Unit:	506 Feet	355 Feet
High Occupancy Building Unit:	3020 Feet	3100 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	304 Feet	204 Feet
Above Ground Utility:	511 Feet	331 Feet
Railroad:	3639 Feet	3718 Feet
Property Line:	278 Feet	178 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.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(\*) on the Facilities Tab.

**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: 06/12/2014

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 06/13/2014

**FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:**

- Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

Per the developer's request, operations are strategically placed at the subject location in order to avoid interference with the future housing development on the parcel. See comments for more information.

**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 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: 47 - Olney fine sandy loam, 1 to 3 percent slopes

NRCS Map Unit Name: \_\_\_\_\_

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: \_\_\_\_\_

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: 90 Feet

water well: 470 Feet

Estimated depth to ground water at Oil and Gas Location 16 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: \_\_\_\_\_

Is the Location within a Floodplain?  No  Yes Floodplain Data Sources Reviewed (check all that apply)

Federal (FEMA)

State

County

Local

Other

**GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING**

Water well sampling required per Rule 318A

**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 Encana has obtained a permit from the FAA which performed an aeronautical study and determined our operations were of no hazard to air navigation. Encana has also verified that its operations are outside of the airport's 2500' emergency landing strip.

The future developer of this location needs the facilities located to the north due to the setbacks from the platted plots of land on the south and east side of our location. In order to stay away from certain features of the future development as much as possible and keep our facilities as close to the access road, they need to be on the north side. Encana has already been working with the developer (surface owner) and the Town of Erie to negotiate the details of this location. Additionally, we chose to place our permanent facilities away from the FAA emergency landing strip (2500' extending from the end of the runway to the east) which runs along the south side of the pad.

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

Signed: \_\_\_\_\_ Date: 01/12/2015 Email: Toby.Sachen@encana.com

Print Name: Bonnie Lamond 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: 6/22/2016

**Surface Owner Information**

Owner Name	Address	Phone	Fax	Email
Mary Alice Billings	2246 Riverside Drive Lyons, CO 80502			
Mary Alice Billings Trust	2246 Riverside Drive Lyons, CO 80502			
Woolley Family Trust	P.O. Box 223 Allenspark, CO 80510			

3 Surface Owner(s)

**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.**

<b>COA Type</b>	<b>Description</b>
	The Form 2A shall be posted on the location during construction, drilling, and completion operations.
	Any changes to the COAs or BMPs shall be submitted for prior COGCC approval via a Form 4 Sundry Notice. Any changes to BMPs which implicate the Operator's MOU with Erie shall be submitted with concurrence from the Town of Erie for the change.
	Closed-loop systems – Operator shall use closed-loop systems (no pits) for drilling and completion operation.
	Hydraulic Fracturing Responsible Products Program – Operator's hydraulic fracturing fluid shall not contain diesel fuels (as defined by EPA 816-R-12-004), 2-butoxyethanol (2-BE), benzene or heavy metals (i.e. lead, mercury, arsenic, cadmium, and chromium).
	Access Roads – Operator shall pave the first 100 feet of the lease road and improve as a crushed surface for the next 100 feet of the lease access road where it exits public right of way, except that this shall not be required over the written objection of a non-operator surface owner.
	Noise mitigation – For db (A) scale noise, operations at this Oil and Gas Location shall be further limited as follows: <ul style="list-style-type: none"> <li>•Operations normally subject to the light industrial standards shall not exceed 60 db(A).</li> <li>•Operations normally subject to the industrial standards shall be reduced at least five (5) db(A) below the maximum level permitted by those Regulations.</li> <li>•Measurements taken when traffic is passing by the sound level meter will be discounted from the average.</li> </ul>
	Traffic – Operator shall coordinate a traffic plan with the Town of Erie prior to commencement of move in and rig up.
	Contact Information - Operator shall include its contact information, including both a telephone number for the Operator and the address and hours of the Operator's Erie community office on all required location signage during drilling and completion operations, but not during production operations.
	Well leak detection and repair - Operator will perform audio, visual, and olfactory inspections for leaks from wells and related production facilities on a monthly basis on all at this location once production starts. Operator will also inspect each well with an infra-red camera on a monthly basis when production starts. If the operator determines that repairs are required based on the inspections, Operator will promptly initiate these repairs. After a well has produced for twelve (12) months, the frequency of such inspections shall decrease from monthly to quarterly. Operator will retain documentation of such inspections for at least three (3) years and will provide inspection reports to the COGCC upon request. Operator will also report to the Town of Erie on the inspection results and any associated repairs the month after the inspection or repair occurs. This COA will terminate on September 1, 2020.
	Central Hub - Operator will not install hydrocarbon storage tanks on this location. However, Operator may still install all other equipment and facilities necessary for the production of hydrocarbons, including wellhead equipment, separation equipment, electrical equipment, and temporary flowback equipment (including temporary storage tanks). The Operator is required to confer with the Town of Erie and then to submit an amended Form 2A prior to deviating from the foregoing requirement.

### **Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Planning	Where technologically feasible and economically practicable, Encana shall consolidate wells to create multi-well pads, including shared locations with other operators. Multi-well production facilities shall be located as far as possible from Building Units.
2	Community Outreach and Notification	Prior to any new operations, provide notification to landowners within 1/2 mile.
3	Community Outreach and Notification	Prior to any new operations, provide designated staff member of the Town of Erie the following: A site plan for site preparation, mobilization, and demobilization; A plan for interim reclamation and re-vegetation and final reclamation of the site; A plan for noise, light, and dust mitigation, to the extent feasible and where applicable; A traffic management plan; Update of this information if any plans change during operations.

4	General Housekeeping	604.c.(2)N. Any material not in use that might constitute a fire hazard will be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area will comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.
5	General Housekeeping	604.c.(2)P. All surface trash, debris, scrap or discarded material connected with the operations of the property shall be removed from the premises or disposed of in a legal manner.
6	General Housekeeping	604.c.(2)T. The well site will be cleared of all non-essential equipment, trash and debris after ninety days of a well P&A.
7	General Housekeeping	604.c.(2)U. & 319.a.(5) Encana will identify plugged and abandoned wellbores according to Rule 319.a.(5). including the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). Encana will also inscribe or imbed the well number and date of plugging upon the permanent monument.
8	Material Handling and Spill Prevention	805.b.(3)B.iii. Well effluent containing more than ten (10) barrels per day of condensate or within two (2) hours after first encountering hydrocarbon gas of salable quality will be directed to a combination of sand traps, separators, surge vessels, and tanks as needed to ensure safe separation of sand, hydrocarbon liquids, water, and gas and to ensure salable products are efficiently recovered for sale or conserved and that non-salable products are disposed of in a safe and environmentally responsible manner.
9	Material Handling and Spill Prevention	Utilize steel-rim berms around tanks and separators instead of sand or soil.
10	Dust control	Per Rule 805.c. Encana shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high-wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. Additional management practices such as road surfacing, wind breaks and barriers, or automation of wells to reduce truck traffic may also be required if technologically feasible and economically reasonable to minimize fugitive dust emissions
11	Construction	604.c.(2)O. All loadlines will be capped for every location in the DJ.
12	Construction	604.c.(2)E.ii. The pad will be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping.
13	Construction	604.c.(2)E.iii. Subject pad will have all weather access roads to allow for operator and emergency response.
14	Construction	604.c.(2)G. Encana utilizes 24" tall corrugated galvanized metal berm walls with a capacity in excess of 150% of the largest tank contained within the wall. In addition, Encana best practices mandates the use of impervious liners that extends under each storage tank and up the walls, permanently affixed to the top of the metal berm wall. Protrusions of piping that come through the liner include a fully sealed "boot" to prevent leakage.
15	Construction	604.c.(2)M. Encana will install fencing to restrict access to wellheads and equipment.
16	Construction	604.c.(2)S. At the time of construction, all leasehold roads will be constructed to accommodate local emergency vehicle access requirements, and will be maintained in a reasonable condition.
17	Construction	Maximize equipment and wellhead setbacks from occupied buildings and residences.
18	Construction	Per Rule 803, to the extent practicable, Encana shall direct site lighting downward and inward, and lighting shall be shielded so as to avoid glare on public roads and Building Units within one thousand (1000) feet.
19	Noise mitigation	604.c.(2)A., 802.c, 802.d Encana will perform a baseline noise survey prior to any operational activity measuring dBA at a distance 350 feet from the noise source (unless there is an occupied structure closer than that – then measurement will be taken 25 feet from the structure). If low frequency noise is a concern, measurement of dBC will be taken 25 feet from the occupied structure towards the noise source. As necessary, based on the survey, Encana will install temporary sound walls to minimize noise and light impacts during drilling and completions and will install permanent noise mitigation at the facility location as necessary to meet all COGCC regulations.

20	Emissions mitigation	604.c.(2)C.i. Flow lines, separators, and sand traps capable of supporting green completions as described in Rule 805 will be installed on subject location at which commercial quantities of gas are reasonably expected to be produced based on existing adjacent wells within 1 mile.
21	Emissions mitigation	604.c.(2)C.iii. Temporary flowback flaring and oxidizing equipment will include: adequately sized equipment to handle 1.5 times the largest flowback volume of gas experienced in a ten mile radius. If there is overrun, Encana will shut in the well versus freely venting.
22	Emissions mitigation	604.c.(2)F. Encana will follow and comply with all leak detection and repair and storage tank emission management plan conditions as required by Colorado Air Quality Control Commission Regulation Number 7. This will include at least monthly Audible, Visual and Olfactory (AVO) inspections of the components and tanks at our Production Facilities at most weekly or at least monthly starting on January 1, 2015. In addition, Encana will perform infra-red camera inspections of these components and the storage tanks at most monthly or at least annually.
23	Emissions mitigation	All operations will be conducted to meet the provisions of Rule 604.c(2). Proper equipment will be used to prevent venting, and when necessary the proper equipment will be used to combust gases.
24	Drilling/Completion Operations	604.c.(2)B.i. Encana will utilize a closed-loop system for drilling operations at this location.
25	Drilling/Completion Operations	604.c.(2)B.ii.-v. Encana will not utilize pits.
26	Drilling/Completion Operations	604.c.(2)H.i. & ii. Encana will employ a rig that has, at a minimum, BOPE containing at least two rams, one of which will be a blind ram and the other of which will be a pipe ram. The BOPE will also contain an annular preventer. At least one person at the well site, during drilling operations, will have Mineral Management certification or Director approved training for blowout prevention.
27	Drilling/Completion Operations	604.c.(2)I. Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections will be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results will be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.
28	Drilling/Completion Operations	604.c.(2)J.i Adequate blowout prevention equipment will be used on all well servicing operations.
29	Drilling/Completion Operations	604.c.(2)J.ii. Backup stabbing valves shall be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.
30	Drilling/Completion Operations	604.c.(2)L. No drill stem tests will be performed.
31	Drilling/Completion Operations	604.c.(2)Q. Guy line anchors in the DJ Basin are not installed. Encana will use an engineered base beam that we guy wire anchor the derricks to.
32	Drilling/Completion Operations	604.c.(2)R. All newly installed or replaced crude oil and condensate storage tanks will be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). Encana will maintain written records verifying proper design, construction, and maintenance, and will make these records available for inspection by the Director. In addition, onsite inspections are conducted internally to insure guidelines are met.
33	Drilling/Completion Operations	Prior to drilling operations, Encana will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, the Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.

34	Drilling/Completion Operations	Encana will comply with the "COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area", dated May 29, 2012.
35	Drilling/Completion Operations	Utilize multistage pressure separation in conjunction with a vapor recover unit for new wells.

Total: 35 comment(s)

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668850	RULE 306.E. CERTIFICATION
1668910	CORRESPONDENCE
1668911	HYDROLOGY MAP
1668954	OTHER
1668955	OTHER
1668957	OTHER
1668966	CORRESPONDENCE
1668967	OTHER
400651431	FORM 2A SUBMITTED
400769623	NRCS MAP UNIT DESC
400769625	ACCESS ROAD MAP
400769626	MULTI-WELL PLAN
400769627	FACILITY LAYOUT DRAWING
400769629	LOCATION DRAWING
400769631	SURFACE AGRMT/SURETY
400769634	OTHER
400769635	WASTE MANAGEMENT PLAN
400783016	OTHER
400863812	LOCATION PICTURES

Total Attach: 19 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	6/21/2016 9:05:57 AM
Permit	Per operator changed distance to High Occ. Building Unit from 5280' to 3030'. Per operator changed contact info.	6/15/2016 3:11:08 PM
OGLA	Updated distances from nearest well and production to HOBUs based on email from Operator and the 2s did not match the 2A.	6/15/2016 2:11:08 PM
Permit	ON HOLD: requesting confirmation of distance to High Occ. Building Unit.	6/15/2016 10:45:10 AM
Permit	Per operator changed Date planned to commence construction from 8/1/2015 to 9/1/2016 & Estimated date that interm reclamation will begin from 8/1/2016 to 9/1/2017.	6/15/2016 9:01:37 AM
OGLA	Based on the information provided by the Operator, COGCC has determined that this proposed Oil and Gas Location meets the requirements for conditional approval based on compliance with COGCC Rules, including, but not limited to; Rule 604 Series Setback and Mitigation Measures. The Operator has presented a siting rationale for the Production Facilities in the Buffer Zone and Best Management Practices that adequately address site specific environmental, health, safety and welfare concerns. OGLA task passed.	6/3/2016 11:38:13 AM
OGLA	Temporary completions are remote MLVTs located at the Woolley location number 336382.	6/3/2016 10:51:01 AM

OGLA	Encana and the Town of Erie (Erie) entered into an Operator Agreement that included the Morgan Hills location (attached doc no 1668967). Appendix A is a list of BMPs between Erie and Encana. COGCC determined that certain BMPs in Appendix A were not appropriate for inclusion on the 2A due to COGCC enforceability or other reasons. In order to resolve this issue, COGCC prepared alternative COAs and sent them to Erie (attached as OTHER doc no 668954). Encana subsequently requested modification of some of the COGCC-prepared COAs. These modifications are described in the attached correspondence (OTHER doc no 1668955 and Correspondence 1668966). The COAs were added with concurrence from Encana per an Amendment to the Operator Agreement between Encana and Erie (attached as OTHER doc no 1668957). The Agreement is only attached to the 2A per Encana's request and a COA requiring the 2A shall be posted at the location was added to the 2A.	6/2/2016 12:55:44 PM
OGLA	Operator responded with OK on COA for Sundry if any of the BMPs change and notice to Erie. Also responded that all of agreement should be attached with Appendix A. Correspondence attached doc no 1668966.	6/2/2016 11:55:41 AM
OGLA	Spoke with the Operator via phone regarding BMP/COA update COA and attachments. Waiting for response.	6/1/2016 11:38:44 AM
OGLA	Operator sent BMPs via email - added to BMP section for dust, lighting, venting, and multiwell pad.	2/23/2016 12:31:33 PM
OGLA	Attached updated hydrology map provided by the Operator and updated distances to nearest surface water and water well from the hydrology map. Waiting on concurrence from Operator on COAs and lighting/dust mitigation BMPs.	2/4/2016 12:53:05 PM
OGLA	Contact Operator regarding hydrology map is from reference point and not edge of disturbance and source of flood plain information.	2/1/2016 2:33:33 PM
OGLA	COGCC received 306e certification on Oct 12, 2015 and attached. Reviewing Town of Erie's BMPs.	10/26/2015 10:17:11 AM
OGLA	added BMPs from Operator that were within COGCC jurisdiction. Additional information regarding BMPs from the Erie MOU are attached. Send email to operator for 306e certification.	10/7/2015 2:10:13 PM
OGLA	On August 26, 2015, Operator sent BMPs to be added from MOU with Erie. COGCC is reviewing BMPs. Also sent separate attachment answering questions. COGCC continues to review location in a buffer and exception zone.	10/7/2015 1:29:33 PM
OGLA	Contacted Operator via email on 8/5/2015 regarding drilling waste clarification, MLVT should be a separate location, land use clarification, contact with FAA regarding nearby airport, cultural distances off reference point and not nearest well or production, and need more for siting rationale. Emailed again on 8/18/2015 as had not yet received a response from the Operator.	8/18/2015 3:09:35 PM
Permit	Permitting Review Complete.	8/13/2015 9:52:37 AM

LGD	<p>Town of Erie BMP's</p> <p>The Town of Erie requests that the BMP's outlined in the EnCana Oil Gas (USA)/Town of Erie Memorandum of Understanding (outlined below) be conditions of approval of the issuance of this permit.</p> <ol style="list-style-type: none"> <li>1. Maximize equipment and wellhead setbacks from occupied buildings and residences to the extent feasible and practicable, as determined by Encana.</li> <li>2. Prior to commencement of any new drilling or completion operations, provide notification to landowners within one-half (1/2) mile of the wellsite.</li> <li>3. Prior to commencement of any new drilling or completion operations, provide to an Erie designated staff member the following for the wellsite for informational purposes only, which Encana may revise from time to time during operations: <ol style="list-style-type: none"> <li>(a) a summary of planned operations, including identified access points and operational timeline, for posting to a local community information web-page;</li> <li>(b) a site plan for site preparation, mobilization and demobilization;</li> <li>(c) a plan for interim reclamation and revegetation of the site and final reclamation of the site;</li> <li>(d) a plan for noise, light and dust mitigation, to the extent feasible;</li> <li>(e) a traffic management plan; and</li> <li>(f) updates of this information if any plans change during operations.</li> </ol> </li> <li>4. Utilize steel-rim berms around tanks and separators instead of sand or soil berms.</li> <li>5. Utilize closed-loop systems for drilling and completion operations to minimize the need for earthen pits.</li> <li>6. Utilize a high-low pressure vessel (HLP) and vapor recovery unit (VRU) for new wells drilled. Encana may remove the VRU system at such time Encana determines that the VRU system is no longer necessary, but no earlier than one (1) year after the new well is drilled.</li> </ol>	7/16/2015 1:13:51 PM
Permit	Passes completeness.	7/13/2015 11:07:35 AM
OGLA	Passed Buffer Zone completeness review. Based on the Operator's description of the MLVT use and location, the MLVT pad is not included in the disturbed area for this proposed Oil and Gas Location.	7/8/2015 3:31:35 PM
OGLA	Buffer Zone completeness review - Location drawing does not show disturbed area for MLVTs, compliance with COGCC MLVT policy should be BMP. Push to Draft	7/6/2015 5:00:12 PM
Permit	Returned to draft. 1.) Location Pictures attachment has a different well name than the submitted document.	7/6/2015 7:36:32 AM
Permit	Wait for approval from Permitting Supervisor.	7/1/2015 7:46:01 AM
OGLA	Buffer Zone completeness review issues identified - MLVTs not shown on attached maps, compliance with COGCC MLVT Policy in comment section should be BMP, Rule 604.c.(2)Ei check boxes and siting rationale not completed - pushed to DRAFT - Operator contacted.	1/15/2015 9:05:38 AM
Permit	Located within buffer zone; sent to OGLA for further review.	1/13/2015 8:38:44 AM

Total: 26 comment(s)