

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:

401057046
(SUBMITTED)

Date Received:

06/02/2016

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: 324373

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:

324373

Expiration Date:

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: 10433
 Name: LARAMIE ENERGY LLC
 Address: 1401 SEVENTEENTH STREET #1400
 City: DENVER State: CO Zip: 80202

Contact Information

Name: Joan Proulx
 Phone: (970) 263-3641
 Fax: ()
 email: jproulx@laramie-energy.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20120081 Gas Facility Surety ID: _____
- Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Shell Number: 797-14-01D
 County: GARFIELD
 Quarter: NWNW Section: 14 Township: 7S Range: 97W Meridian: 6 Ground Elevation: 8307

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: 327 feet FNL from North or South section line
1002 feet FWL from East or West section line

Latitude: 39.451983 Longitude: -108.193066

PDOP Reading: 1.2 Date of Measurement: 02/08/2016

Instrument Operator's Name: T McCracken

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	<u>5</u>	Oil Tanks*	<u> </u>	Condensate Tanks*	<u>2</u>	Water Tanks*	<u>1</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>1</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>1</u>	Vapor Recovery Unit*	<u> </u>	VOC Combustor*	<u> </u>	Flare*	<u> </u>	Pigging Station*	<u> </u>

OTHER FACILITIES*

Other Facility Type

Number

<input type="text"/>	<input type="text"/>
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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:

CONSTRUCTION

Date planned to commence construction: 02/01/2017 Size of disturbed area during construction in acres: 3.60

Estimated date that interim reclamation will begin: 07/01/2017 Size of location after interim reclamation in acres: 2.20

Estimated post-construction ground elevation: 8307

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? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: UIC Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: TC Mineralco

Phone: 630-362-8061

Address: 106 East Liberty Drive

Fax: _____

Address: _____

Email: pconway@alphacarta.com

City: Wheaton State: IL Zip: 60187

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: No

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 01/28/2016

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.

	From WELL	From PRODUCTION FACILITY
Building:	5280 Feet	5280 Feet
Building Unit:	5280 Feet	5280 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	5280 Feet	5280 Feet
Above Ground Utility:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	2126 Feet	1980 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.
- Large UMA Facility - 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: _____

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 (onl 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.

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: Map Unit Symbol 55, Parachute-Irigul complex, 5 to 30 percent slopes MLRA 48A

NRCS Map Unit Name: Map Unit Symbol 57, Parachute-Rhone loams, 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: _____

List individual species: See comments.

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: 407 Feet

water well: 4310 Feet

Estimated depth to ground water at Oil and Gas Location 50 Feet

Basis for depth to groundwater and sensitive area determination:

COGCC GIS map; hydrology plat map

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 609

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area
- 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 Four wells are being permitted to drill from the existing Shell 797-14-01D pad, location #324373, which has one producing well (Shell 797-14-01D, 05-045-12399). The four wells are:
TC 797-14-01W
TC 797-10-21E
TC 797-11-21W
TC797-15-01E

The current location will not be modified or expanded as it is a sufficient size to accommodate a rig and related facilities. All roads and pipelines are existing, and access to the location is on existing roads.

The pad is located on fee surface and the wells will reach fee minerals. Laramie Energy will comply with the Notice to Operators (NTO) Drilling Wells on the Roan Rim Plateau (June 12, 2008). A closed-loop system will be utilized on this pad. Because the four wells lie within the Red Pinnacle Unit, setback rules do not apply (Rule 318.d.3).

The location is in a black bear area and the appropriate BMP is attached. The CPW consultation took place on January 20, 2016, with Michael Warren. Michael indicated that the TC 797-14-01W wellbore lies within a wildlife mitigation plan that was originated by Marathon in 2010 and expired in Mach, 2016. I attempted to contact Marathon and their number has been disconnected.

Drilling fluids may either be disposed of at the 629-1 SWD or sent to the Central Water Handling Facility for re-use. Cuttings may be disposed of at the 697-15-01 cuttings disposal area or will be hauled offsite for disposal at a commercial disposal facility. Any liquid hydrocarbons produced may either be trucked to the Logan Trail 28-11 SWD for injection or sent to the Central Water Handling Facility for re-use.

The existing location does not fall within a buffer zone. Notice to the surface owner occurred on January 28, 2016, during a meeting with Chuck Whiteman of TC Minerals and Chris Clark of OXY USA WTP LP to discuss the drilling of the four wells. Since that time, OXY USA WTP LP assets were sold to Laramie Energy, LLC.

The wells lie within two different NRCS areas, as follows: TC 797-14-01W and TC 797-11-21W both lie in Map Unit Symbol #55; TC 797-15-01E and TC 797-10-21E lie in both Map Unit Symbol #55 and Map Unit Symbol #57.

Map Unit Symbol 55: Slender wheatgrass, Letterman's needlegrass, Arizona fescue, Mountain big sagebrush, Columbia needlegrass, Saskatoon serviceberry, Sandberg bluegrass, Mountain snowberry, Yellow rabbitbrush
Map Unit Symbol 57: Letterman's needlegrass, Columbia needlegrass, Mountain big sagebrush, Elk sedge, Slender wheatgrass, Arizona fescue, Saskatoon serviceberry, Mountain snowberry, Sandberg bluegrass
Reference areas photos will be submitted via sundry notice, Form 4, within 12 months of Form 2A approval.

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

Signed: _____ Date: 06/02/2016 Email: jproulx@laramie-energy.com

Print Name: Joan Proulx Title: Office Manager

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: _____

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.

<u>COA Type</u>	<u>Description</u>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Wildlife	Best Management Practices (BMP's) To Reduce Impacts to Wildlife on the Shell 797-14-01D Pad For Operations in Sec. 14, Twn.7S, Rng. 97W 6th PM Garfield County, CO

COGCC Mapping indicates:

** NO RSO (Restricted Surface Occupancy) on the Shell 797-14-01D Pad

** Other than Black Bear, there is NO SWH (Sensitive Wildlife Habitat) on the Shell 797-14-01D Pad

In an effort to minimize the impacts to wildlife, the following BMP's are part of Laramie Energy's (PE) standard operating procedures for drilling and operations within the Piceance Basin. This list is a partial of PE's policy.

Initial Stages for Infrastructure and Roads

1. Road design and General

- No firearms, no dogs on location, and no feeding of wildlife.
- Minimize the amount of traffic on lease roads within 3 hours of sunrise and sunset.
- Use existing routes as much as possible to avoid new disturbance and habitat fragmentation and minimize new road construction.
- Maximize the topography as much as possible in designing roads to reduce, visual, noise, impacts, etc.
- Participate in road sharing agreements with other Operators when possible.
- Design and surface roads based on the traffic, speed, and type of vehicles to reduce, dust, mud, and environmental damage.
- Locate roads away from riparian areas and bottoms of drainages as much as possible or re-route entirely.
- Obtain Army Corp of Engineer Permits for any stream crossings prior to construction.
- Analyze crossings and flow characteristics to determine the best method of crossing, (i.e. culvert, bridge, or low water).
- Armor all stream crossings to reduce erosion and to comply with Stormwater Requirements.
- Implementation of fugitive dust control measures including but not limited to water or magnesium chloride applications, and road surfacing.
- Limit traffic to the minimum needed for safe and efficient operations.
- No driving or parking off of disturbed areas.
- Install and use locked gates or other means when allowed by landowner or Federal Agencies to prevent unauthorized travel on roads and rights-of ways.

2. Well pad design and location

- Locate well pads to maximize directional drilling practices. PE currently plans and attempts to locate pads for the maximum number of wells which can safely be developed from each pad. This is normally 16-20 wells per pad which equates to roughly 4 well pads per section.
- Design each location to accommodate both current and future gas production.
- Locate well pads to minimize disturbance yet maximize use to reduce surface impacts.
- Review State and Federal GIS mapping to avoid Sensitive Wildlife Habitat (SWH), Restricted Surface Occupancy (RSO) areas, steep slopes, etc., as much as possible with roads and pad location.

Design and install gathering lines within the disturbed area of new roads and adjacent to as much as possible to reduce disturbance construction.

- Design Rights-of Way widths to the minimum needed for safe and efficient construction of pipelines
- Remote Telemetry for production operations

3. Drilling and Production Operations

- Implement remote telemetry in all operations
- Where topographically possible and subject to landowner approval, use centralized water gathering and transportation systems.
- Install exclusionary devices to prevent bird and other wildlife access to equipment stacks, vents, and openings.
- Locate facilities to minimize visual effects (e.g. paint color, screening, etc.)
- PE implements a dewatering system in its operations. No fluid pits are constructed or used during drilling or completion operations.

		<p>- PE implements an aggressive weed management program. PE incorporates and uses the BLM Colorado River Valley Field Office's "Noxious and Invasive Weed Management Plan for Oil and Gas Operators- March 2007" for all operations. Each spring, Laramie Energy inventories all pads, roads, and pipelines to insure no noxious weeds have been introduced. If noxious weeds are found, the county will be notified and the weeds will be treated. Weeds are continuously monitored and treated throughout the growing season. Only herbicides approved by the EPA and State are used by certified weed applicators.</p> <p>4. Reclamation</p> <ul style="list-style-type: none"> - Strip and segregate topsoil from other soil horizons during pad, road, and pipeline construction. - Minimize topsoil degradation by windrowing no higher than 5 feet when possible. - Immediately seed topsoil to reduce erosion and prevent weed establishment and maintain soil microbial activity. - Use only certified weed free native seed mixes, unless recommended otherwise by Federal Agencies or the Landowner. - Use locally adapted seed when available. - Use diverse seed mixes to mirror the surrounding area unless recommended otherwise by Federal Agencies or the Landowner. - Monitor re-vegetation success until a minimum of 75% of preferred perennial plant cover (no weeds) is established. - Perform "interim" reclamation on all disturbed areas not needed for active producing operations. - If possible, conduct interim and final reclamation during optimum periods (e.g. late fall/early winter or early spring). - If needed, fence reclaimed areas to minimize livestock/wildlife impact until plant species have are capable of sustaining grazing.
2	Wildlife	<p>Black Bear</p> <ul style="list-style-type: none"> • Initiate a food and waste/refuse management program that uses bear-proof food storage containers and trash receptacles. • Initiate an education program that reduces bear conflicts. • Establish policy to prohibit keeping food and trash in sleeping quarters. • Establish policy to support enforcement of state prohibition on feeding of black bear. • Report bear conflicts immediately to CPW . <p>Signature <u>Wayne P. Bankert</u> Date _____ <u>5/31/2016</u> Wayne P. Bankert Piceance Reg. & Env. Manager</p>

Total: 2 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401057046	FORM 2A SUBMITTED
401057203	NRCS MAP UNIT DESC
401057204	NRCS MAP UNIT DESC
401057207	MULTI-WELL PLAN
401057208	HYDROLOGY MAP
401057209	LOCATION PICTURES
401057210	REFERENCE AREA MAP
401057211	ACCESS ROAD MAP
401057213	CONST. LAYOUT DRAWINGS
401057214	LOCATION DRAWING
401057215	REFERENCE AREA PICTURES

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>

Total: 0 comment(s)