

FORM

2

Rev
08/16

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:

401600246

APPLICATION FOR PERMIT TO:

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate

Date Received:

04/09/2018

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER UnplannedRefilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☒Well Name: NicholsWell Number: 0994-24-16EName of Operator: LARAMIE ENERGY LLCCOGCC Operator Number: 10433Address: 1401 SEVENTEENTH STREET #1400City: DENVER State: CO Zip: 80202Contact Name: Joan ProulxPhone: (970)263-3641Fax: ()Email: jproulx@laramie-energy.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120081

WELL LOCATION INFORMATION

QtrQtr: SENW Sec: 24 Twp: 9S Rng: 94W Meridian: 6Latitude: 39.263283Longitude: -107.830839Footage at Surface: 2295 Feet FNL 2793 Feet FWLField Name: BRUSH CREEKField Number: 7562Ground Elevation: 7212County: MESA

GPS Data:

Date of Measurement: 08/30/2016 PDOP Reading: 1.7 Instrument Operator's Name: Cody RichIf well is ☒ Directional ☐ Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL

<u>1412</u>	<u>FSL</u>	<u>1437</u>	<u>FEL</u>	<u>1412</u>	<u>FSL</u>	<u>1437</u>	<u>FEL</u>
Sec: <u>24</u>	Twp: <u>9S</u>	Rng: <u>94W</u>	Sec: <u>24</u>	Twp: <u>9S</u>	Rng: <u>94W</u>		

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe Surface Owner is: ☒ is the mineral owner beneath the location.

(check all that apply)

☒ 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 ☐ IndianThe Minerals beneath this Oil and Gas Location will be developed by this Well: YesThe right to construct the Oil and Gas Location is granted by: oil and gas lease

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

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Fee Mineral
Mesa County, Colorado
Twn. 9S, Rng. 94W, 6th PM
Sec 24: N2, SW, N2SE

Total Acres in Described Lease: 560 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 155 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2577 Feet
Building Unit: 5280 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 802 Feet
Above Ground Utility: 871 Feet
Railroad: 5280 Feet
Property Line: 963 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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: _____

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 236 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1412 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

This well is inside COGCC Order 429-16. As per the Order Condition No. 5, Laramie Energy, LLC, will submit a CA to the BLM at least 90 days before the anticipated date of first production (as defined in COGCC Rules) from the initial well completed.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
MESAVERDE	MVRD	429-16	640	Sec 24: All

DRILLING PROGRAM

Proposed Total Measured Depth: 7862 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: _____ Feet ☒ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H₂S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? No

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Other

Other Disposal Description:

Due to character limit, see submittal comments for Drilling Waste Management

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	112	0	60	100	60	0
SURF	11	8+5/8	28	0	1550	278	1550	0
1ST	7+7/8	4+1/2	11.6	0	7862	1258	7862	1030

☐ Conductor Casing is NOT planned

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)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 318A.a. Exception Location (GWA Windows).
- ☐ Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

- ☒ Rule 318.c. Exception Location from Rule or Spacing Order Number 429-16
- ☐ Rule 603.a.(2) Exception Location (Property Line Setback).

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

Disposal Description: (Drilling Waste Management)

Laramie plans to drill the wells within this project boundary with a dewatering system with no need for a reserve pit. Drilling fluids are recycled and re-used with cuttings being de-watered and captured in a catch pan, stacked in a cuttings management area and allowed to dry. Once the cuttings are dry and satisfy the COGCC for Rule 910 analytics, the cuttings will be stacked along the cut slope then buried and covered with a minimum of 3 feet of cover. This operation will occur after the completion of all the wells.

This Form 2 is being submitted as a result of an unplanned sidetrack.

Well: Nichols 0994-24-16E

Field: Brush Creek

Surface Casing: 8-5/8" 28# J-55 set @ 1550' MD / 1496' TVD

Surface Cement: Cemented to surface with 19bbls of good cement to surface

Original Well TD: 4667' MD / 4325' TVD

Planned Sidetrack Depth: 1800' MD / 1729' TVD

Prog G Sand: 2575' MD / 2426' TVD

Prog Williams Fork: 4515' MD / 4176' TVD

Prog TOG: 6006' MD / 5576' TVD

- Drilled to 4667' when string became stuck on 4/5/18 at 1800hrs.
 - Large chunks of shale were circulated out of the hole. Free point confirmed stuck point of 2400'. String was backed off at 2325' (top of fish)
 - Washed over fish top to drill out bridge and wash pipe became stuck at 2456'. Jarred out of the hole and 3 joints of wash pipe were left in the hole from 2362'-2456'.
 - Jarred on fish for 2 more days at which point it was decided to leave the fish in the hole.
- The proposed objective formations are the same as the wellbore being abandoned. The BHL target is the same as the wellbore being abandoned.
MD of proposed sidetrack KOP is 1600'.
Email approval was granted by Craig Burger on 4/9/2018 (email attached).

This application is in a Comprehensive Drilling Plan No CDP #: _____

Location ID: 450760

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____ Print Name: Joan Proulx

Title: Regulatory Analyst Date: 4/9/2018 Email: jproulx@laramie-energy.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: 4/14/2018

Expiration Date: 04/13/2020

API NUMBER

05 077 10400 01

Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

COA Type

Description

	<p>1)Operator shall comply with the most current revision of the Northwest Colorado Notification Policy.</p> <p>2)Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to a minimum of 200' above the Lower Wasatch (as defined by COGCC in the report "Casing and Cement Standards for Geologic Isolation Piceance Basin Bradenhead Monitoring Area and Nearby Fields," dated April 18, 2016, COGCC Document No. 2056199, Appendix A Field Scout Cards and Annotated Type Logs) to provide isolation of the Lower Wasatch, all Mesaverde Group formations including the Ohio Creek Formation, and underlying formations, if penetrated. Verify production casing cement coverage with a cement bond log. This requirement shall supersede the top of cement requirements in the Mamm Creek Field Notice to Operators.</p> <p>3)The Operator shall monitor the bradenhead pressure of the proposed well and all offset wells under Operator's control which penetrate the stimulated formation and have a treated interval separation of 300 feet or less. Monitoring shall occur from 24 hours prior to stimulation and shall continue until 24 hours after stimulation is complete. Recording shall be at a frequency of at least once per 24 hours with the capability of recording the maximum pressure observed during each 24 hour period. Operator shall notify COGCC Engineering staff if bradenhead pressures increase by more than 200 psig.</p>
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Best Management Practices

No BMP/COA Type

Description

1	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with open-hole Resistivity Log and Gamma Ray Log from TD into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs will state "No open-hole logs were run" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run.
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Total: 1 comment(s)

Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf

Notice Concerning Operating Requirements for Wildlife Protection.

http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401600246	FORM 2 SUBMITTED
401600251	DEVIATED DRILLING PLAN
401600252	WELLBORE DIAGRAM
401600253	WELLBORE DIAGRAM
401600256	OTHER
401600257	CORRESPONDENCE
401600284	DIRECTIONAL DATA
401600484	DEVIATED DRILLING PLAN

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	04/11/2018
Engineer	Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 300 feet.	04/09/2018
Permit	LGD and public comment waived for this application for an unplanned sidetrack with drilling in progress. Preliminary review complete.	04/09/2018
Permit	Corrections have been made to the form as requested. 317.p BMP is accurate as no wells have been completed on the pad. Form passes completeness.	04/09/2018
Permit	Returning form to draft for curve page of deviated drilling plan to be added, the "01" extension to be added, and checking on accuracy of BMP for 317.p.	04/09/2018

Total: 5 comment(s)