

FORM
2

Rev
05/22

State of Colorado

Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

404007992

Date Received:

01/06/2025

APPLICATION FOR PERMIT TO

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

Amend ☐

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER: _____

Refile ☒

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: CC Well Number: 0697-10-14E
Name of Operator: LARAMIE ENERGY LLC ECMC Operator Number: 10433
Address: 1700 LINCOLN ST STE 3950
City: DENVER State: CO Zip: 80203
Contact Name: Lori Muhr Phone: (970)312-6479 Fax: ()
Email: LMuhr@Laramie-Energy.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

ECMC Financial Assurance

☒ The Operator has provided or will provide Financial Assurance to the ECMC for this Well.

Surety ID Number (if applicable): 20210135

Federal Financial Assurance

☐ In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ _____

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SENE Sec: 15 Twp: 6S Rng: 97W Meridian: 6

Footage at Surface: 1414 Feet FNL/FSL 612 Feet FEL/FWL
FNL FEL

Latitude: 39.526334 Longitude: -108.198915

GPS Data: GPS Quality Value: 1.8 Type of GPS Quality Value: PDOP Date of Measurement: 09/16/2020

Ground Elevation: 8517

Field Name: GRAND VALLEY Field Number: 31290

Well Plan: is ☒ Directional ☐ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 10 Twp: 6S Rng: 97W Footage at TPZ: 798 FSL 666 FEL
Measured Depth of TPZ: 7547 True Vertical Depth of TPZ: 7156 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 10 Twp: 6S Rng: 97W Footage at BPZ: 798 FSL 666 FEL
Measured Depth of BPZ: 10234 True Vertical Depth of BPZ: 9843 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 10 Twp: 6S Rng: 97W Footage at BHL: 798 FSL 666 FEL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: GARFIELD Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? No

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☐ Yes ☒ No
☐ If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: _____ Date of Final Disposition: _____

Comments: Garfield County is the local government with jurisdiction over the siting of this proposed oil and gas location, Advance Notice was sent to Garfield County's Community Development Department, notifying Garfield County of Laramie's intentions to submit an Oil and Gas Development Plan to COGCC. The notification included the proposed locations, including the Cascade Creek 0697-15-08 well pad. The notice letter was sent on July 14, 2021, to Garfield County pursuant to COGCC Rule 302.e. Garfield County, the local government with jurisdiction over the siting of this proposed oil and gas location, determined that per the Garfield County Land Use and Development Code Table 3-403: Use Table, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use by right if 1) the Location does not require an Alternative Location Analysis or 2) the Operator does not request higher permissible noise and light levels from Garfield County. The CC 0697-15-08 Well Pad Location did not require an Alternative Location Analysis and Laramie did not request from Garfield County increased permissible noise and light levels from Garfield County. Therefore, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use-by-right and are exempt from Land Use Regulation in the Resource Lands Zone District.

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Mineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Surface Owner Protection Bond (if applicable): _____ Surety ID Number (if applicable): _____

MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

- ☒ Fee
☐ State
☐ Federal
☐ Indian
☐ N/A

LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

* If this Well is within a unit, describe a lease that will be developed by the Well.

* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

See Attached Lease Map

Total Acres in Described Lease: 8262

Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease #

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1383 Feet
Building Unit: 5280 Feet
Public Road: 5280 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 331 Feet

INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

OBJECTIVE FORMATIONS

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| WILLIAMS FORK-ILES | WFILS | 1-229 | | |

Federal or State Unit Name (if appl):

Unit Number:

SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? No

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: 666 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: 322 Feet

Exception Location

☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers.

SPACING & FORMATIONS COMMENTS

DRILLING PROGRAM

Proposed Total Measured Depth: 10234 Feet

TVD at Proposed Total Measured Depth 9843 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 Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

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

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

| <u>Casing Type</u> | <u>Size of Hole</u> | <u>Size of Casing</u> | <u>Grade</u> | <u>Wt/Ft</u> | <u>Csg/Liner Top</u> | <u>Setting Depth</u> | <u>Sacks Cmt</u> | <u>Cmt Btm</u> | <u>Cmt Top</u> |
|--------------------|---------------------|-----------------------|--------------|--------------|----------------------|----------------------|------------------|----------------|----------------|
| CONDUCTOR | 26 | 18 | SA-53B | 47.44 | 0 | 90 | 150 | 90 | 0 |
| SURF | 14+3/4 | 9+5/8 | J-55 | 36 | 0 | 2530 | 1130 | 2530 | 0 |
| 1ST | 8+3/4 | 4+1/2 | P100IC | 11.6 | 0 | 10234 | 1666 | 10234 | |

☐ Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

| <u>Zone Type</u> | <u>Formation /Hazard</u> | <u>Top M.D.</u> | <u>Top T.V.D.</u> | <u>Bottom M.D.</u> | <u>Bottom T.V.D.</u> | <u>TDS (mg/L)</u> | <u>Data Source</u> | <u>Comment</u> |
|------------------|--------------------------|-----------------|-------------------|--------------------|----------------------|-------------------|-----------------------|--|
| Groundwater | Uinta | 0 | 0 | 743 | 740 | 0-500 | CGS | CGS- Nearby Springs |
| Confining Layer | Green River/ Mahogany | 743 | 740 | 2833 | 2708 | | | Confining layer/Oil Shale. Mahogany permeability has been determined to be approximately 30 Nano Darcie |
| Confining Layer | Wasatch | 2833 | 2708 | 4969 | 4708 | | | |
| Hydrocarbon | Wasatch 'G' Sand | 4969 | 4708 | 5194 | 4918 | 1001-10000 | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water. TDS: 750-2050 mg/L) |
| Hydrocarbon | Fort Union | 5194 | 4918 | 6608 | 6242 | 1001-10000 | Produced Water Sample | Gas well water analysis: 05045122270000-0100 Salt Water |
| Hydrocarbon | Ohio Creek | 6608 | 6242 | 6808 | 6430 | >10000 | Other | SWD well water analysis: API: 05045068710000. CC 604-01 (Sec 4 6S 97W) Salt Water. TDS 10,850 mg/L |
| Hydrocarbon | Williams Fork | 6808 | 6430 | 7547 | 7156 | >10000 | Other | SWD well water analysis: API: 05045068710000. CC 604-01 (Sec 4 6S 97W) Salt Water. TDS 10,850 mg/L |
| Hydrocarbon | Top of Gas | 7547 | 7156 | 9071 | 8680 | >10000 | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water |
| Hydrocarbon | Cameo | 9071 | 8680 | 9469 | 9078 | >10000 | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water |
| Hydrocarbon | Base Cameo Coal | 9469 | 9078 | 9484 | 9093 | >10000 | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water |
| Hydrocarbon | Rollins | 9484 | 9093 | 9734 | 9343 | >10000 | Produced Water Sample | Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water |
| Hydrocarbon | Cozzette | 9734 | 9343 | 9954 | 9563 | >10000 | Produced Water Sample | Gas well water analysis: API : 05045152520000 Sec 17 T6S R97W |
| Hydrocarbon | Corcoran | 9954 | 9563 | 10234 | 9843 | >10000 | Produced Water Sample | Gas well water analysis: API : 05045152520000 Sec 17 T6S R97W |

OPERATOR COMMENTS AND SUBMITTAL

Comments

A parasite string will be strapped to the outside of surface casing with injection mandrel set approximately 120 feet above the surface shoe. The parasite string will be utilized for air injection while drilling the production hole section which will lower Downhole hydrostatic pressure to mitigate loss circulation. The parasite string will be permanently cemented off after production casing is cemented. The parasite string outer diameter will be 1.9 inches with a weight of 2.76 pounds per foot. The new parasite string (Grade: J-55) will be set at a depth of 2410 feet. The well is not located within High Priority Habitat.

This application is in a Comprehensive Area Plan No CAP #:

Oil and Gas Development Plan Name 2021 Cascade Creek Oil and Gas DP OGD ID#: 481179

Location ID: 481743

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

Signed: _____ Print Name: Lori Muhr

Title: Regulatory Analyst Date: 1/6/2025 Email: LMuhr@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 ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved:  Director of ECMC Date: 2/21/2025

Expiration Date: 02/21/2028

API NUMBER

05 045 24535 00

CONDITIONS OF APPROVAL, IF ANY LIST

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.

| <u>COA Type</u> | <u>Description</u> |
|--------------------------------|---|
| Construction | If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016). |
| Drilling/Completion Operations | Operator will log two (2) additional wells during the second rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells for a total of three wells logged. |
| Interim Reclamation | Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017). |
| Drilling/Completion Operations | Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than threshold pressure is observed or if there is evidence of communication, Operator must contact ECMC engineering for approval prior to stimulation. 2) A post-production test within 60 days after first sales |
| Drilling/Completion Operations | 1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Operator shall provide cement coverage from the first string casing shoe to a minimum of 500' above the Wasatch G Formation. Verify cement coverage with a cement bond log. 3) Operator shall comply with the most current revision of the Northwest Notification Policy. |
| 5 COAs | |

Operator Best Management Practices

| <u>No</u> | <u>BMP/COA Type</u> | <u>Description</u> |
|------------------|--------------------------------|---|
| 1 | Drilling/Completion Operations | Alternative Logging Program: One of the 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 "Alternative Logging Program - 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. |

Total: 1 comment(s)

ATTACHMENT LIST

| <u>Att Doc Num</u> | <u>Name</u> |
|---------------------------|----------------------------|
| 404007992 | APD APPROVED |
| 404008015 | OffsetWellEvaluations Data |
| 404008021 | DIRECTIONAL DATA |
| 404008025 | LEASE MAP |

| | |
|-----------|----------------------------|
| 404008028 | WELL LOCATION PLAT |
| 404008030 | DEVIATED DRILLING PLAN |
| 404008031 | DEVIATED DRILLING PLAN |
| 404078906 | OffsetWellEvaluations Data |
| 404103229 | OFFSET WELL EVALUATION |
| 404103257 | FORM 2 SUBMITTED |
| 404103281 | PUBLIC COMMENT-0 |

Total Attach: 11 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|--------------------------|---|----------------------------|
| Permit | Final Review Complete. | 02/21/2025 |
| Permit | Changed Lat/Long to match plat Permitting Review Complete. | 02/18/2025 |
| Engineer | Offset well CASCADE CREEK #697-15-01 045-10686 Operated by Laramie Energy produces from the Wasatch G formation and is within 1 mile of the proposed wellbores. There are no domestic water wells within 1 mile Uploaded offset well review emailed by the Operator with additional wells to the North of the pad | 02/03/2025 |
| OGLA | The Commission approved OGDG #481179 on February 24, 2022 for the Oil and Gas Location related to this Form 2. OGLA task passed. | 01/21/2025 |

Total: 4 comment(s)