

FORM
2
Rev
12/20

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:
402878366
Date Received:
04/12/2022

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: 0697-03-23W
Name of Operator: LARAMIE ENERGY LLC COGCC Operator Number: 10433
Address: 1700 LINCOLN ST STE 3950
City: DENVER State: CO Zip: 80203
Contact Name: Wayne P Bankert Phone: (970)812-5310 Fax: ()
Email: wbankert@laramie-energy.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20210135

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NESW Sec: 3 Twp: 6S Rng: 97W Meridian: 6

Footage at Surface: 1552 Feet FSL 1464 Feet FWL

Latitude: 39.548945 Longitude: -108.210285

GPS Data: GPS Quality Value: 2.1 Type of GPS Quality Value: PDOP Date of Measurement: 11/02/2020

Ground Elevation: 8610

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: 3 Twp: 6S Rng: 97W Footage at TPZ: 1150 FSL 1921 FWL
Measured Depth of TPZ: 7165 True Vertical Depth of TPZ: 7133 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 3 Twp: 6S Rng: 97W Footage at BPZ: 1150 FSL 1921 FWL
Measured Depth of BPZ: 10115 True Vertical Depth of BPZ: 10083 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 3 Twp: 6S Rng: 97W Footage at BHL: 1150 FSL 1921 FWL
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 0603-23-32 well site. 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 0603-23-32 Well Site 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 Financial Assurance (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: 5280 Feet
Building Unit: 5280 Feet
Public Road: 5280 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 1473 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	510-70	871	All(Lots 5-16,SEC 2), SEC 3 T6S R97W

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? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 1150 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: 295 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: _____ 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: _____ 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: 10115 Feet TVD at Proposed Total Measured Depth 10083 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	P110IC	11.6	0	10115	1640	10115	2700

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	30	30	986	983	0-500	CGS	CGS - Nearby springs
Confining Layer	Green River/ Mahogany	986	983	2947	2933			Confining layer/Oil Shale. Mahogany permeability has been determined to be approximately 30 Nano Darcie
Confining Layer	Wasatch	2947	2933	4707	4683			
Hydrocarbon	Wasatch 'G' Sand	4707	4683	4918	4893	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	4918	4893	6465	6433	1001-10000	Produced Water Sample	Gas well water analysis: 05045122270000-0100 Salt Water
Hydrocarbon	Ohio Creek	6465	6433	6765	6733	>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	6765	6733	7165	7133	>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	7165	7133	8955	8923	>10000	Produced Water Sample	Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water
Hydrocarbon	Cameo	8955	8923	9350	9318	>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	9350	9318	9365	9333	>10000	Produced Water Sample	Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water
Hydrocarbon	Rollins	9365	9333	9565	9533	>10000	Produced Water Sample	Gas well water analysis: API :05045200130001, 05045200230000, 05045106860000 Section 5, Section 9 & Section 15 T6S R97W. Salt Water
Hydrocarbon	Cozzette	9565	9533	9840	9808	>10000	Produced Water Sample	Gas well water analysis: API : 05045152520000 Section 17 T6S R97W
Hydrocarbon	Corcoran	9840	9808	10115	10083	>10000	Produced Water Sample	Gas well water analysis: API : 05045152520000 Section 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 permit is a refile of a previously approved permit. SHL, BHL, TPZ, and TD for the well have changed slightly due to minor reorientation of the well after additional engineering review of reservoir characteristics by Laramie Reservoir Engineer and Geologist.

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

OGDP ID#: 481179 OGDP Name: 2021 Cascade Creek Oil and Gas DP Expiration Date: 02/23/2025

Location ID: 335647 Location Name: Cascade Creek (CC) 0603-23-32

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

Signed: _____ Print Name: Wayne P Bankert

Title: Reg. & Enviro. Manager Date: 4/12/2022 Email: wbankert@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, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 5/12/2022

Expiration Date: 02/23/2025

API NUMBER

05 045 24081 00

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.

Condition of Approval

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	1) Operator shall comply with the most current revision of the Northwest Notification Policy. 2) Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to a minimum of 200' above all Mesaverde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with a cement bond log. 3) During stimulation, operator shall monitor the bradenhead, casing, and tubing 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. Operator shall notify COGCC Engineering staff if bradenhead pressures increase by more than 200 psig.
Interim Reclamation	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
2 COAs	

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)

Applicable Policies and Notices to Operators

Piceance Rulison Field - Notice to Operators.

<http://cogcc.state.co.us/documents/reg/Policies/NoticeToOp-20060623-2.pdf>

NW Colorado Notification Policy.

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

Attachment List

Att Doc Num	Name
402878366	FORM 2 SUBMITTED
402948726	SURFACE AGRMT/SURETY
403006819	LEASE MAP
403008388	DEVIATED DRILLING PLAN
403008390	DEVIATED DRILLING PLAN
403008523	OffsetWellEvaluations Data
403008525	WELL LOCATION PLAT
403010853	DIRECTIONAL DATA
403028583	OffsetWellEvaluations Data

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	05/04/2022
Permit	Updated refile comment on Submit tab.	05/04/2022
Engineer	<p>Corrected First String top depth to 0 ft.</p> <p>Updated Offset Well Evaluation attached. Webforms error is not populating "Offset Well Evaluation" section.</p> <p>Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of the wellbores on this pad meet standards. No mitigation required.</p> <p>Offset water well check: There are no permitted water wells within one mile of this proposed surface hole location.</p>	04/26/2022
Permit	Passed Permitting review.	04/25/2022
OGLA	The Commission approved OGDG #481179 on 2/24/2022 for the Oil and Gas Location related to this Form 2. OGLA task passed.	04/15/2022

Total: 5 comment(s)