

FORM  
2

Rev  
05/22

# 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:

403245454

**(SUBMITTED)**

Date Received:

02/06/2023

## 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: Hayward Well Number: 0993-25-14E  
 Name of Operator: LARAMIE ENERGY LLC COGCC Operator Number: 10433  
 Address: 1700 LINCOLN ST STE 3950  
 City: DENVER State: CO Zip: 80203  
 Contact Name: Katy Middleton Phone: (970)98582440 Fax: ( )  
 Email: kmiddleton@laramie-energy.com

### FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

#### COGCC Financial Assurance

The Operator has provided or will provide Financial Assurance to the COGCC 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: 25 Twp: 9S Rng: 93W Meridian: 6

Footage at Surface: 2564 Feet FNL 878 Feet FEL

Latitude: 39.244810 Longitude: -107.715841

GPS Data: GPS Quality Value: 1.6 Type of GPS Quality Value: PDOP Date of Measurement: 04/30/2019

Ground Elevation: 8008

Field Name: VEGA Field Number: 85930

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: 25 Twp: 9S Rng: 93W Footage at TPZ: 777 FSL 650 FEL  
Measured Depth of TPZ: 6819 True Vertical Depth of TPZ: 6477 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 25 Twp: 9S Rng: 93W Footage at BPZ: 777 FSL 650 FEL

Measured Depth of BPZ: 8769 True Vertical Depth of BPZ: 8427 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 25 Twp: 9S Rng: 93W Footage at BHL: 777 FSL 650 FEL

FNL/FSL FEL/FWL

### LOCAL GOVERNMENT PERMITTING INFORMATION

County: MESA 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: Approved Date of Final Disposition: 06/14/2022

Comments: Per the Mesa County Land Development Code Table 6-1: Use Table and Section 6.02(Q), "Oil and Gas Drilling" is an allowed use in the Agricultural, Forestry, Transitional (AFT) zone district. The subject parcel is designated by Mesa County as AFT zone district. The Hayward 0993-25-09 Pad meets all the Mesa County zoning setback requirements for the AFT zone district. While Oil and Gas Drilling is an allowed use, Oil and Gas Locations must be permitted within Mesa County. Laramie submitted an Oil and Gas Location Application to Mesa County on May 19th, 2022. The Mesa County Community Development Planning Division issued the Oil and Gas Site Location Approval Document on June 14th, 2022, with conditions for operations. The Mesa County Permit is attached to this Form 2.

### 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 Lease Map. Fee and Federals Minerals committed to Federal Communitization Agreement: COC-076718 covering all of Section 25. The Hayward 0993-25-09 well pad will only target fee minerals. Laramie is proposing to drill 13 new directional natural gas wells that will produce fee minerals. There are no federal wells associated with proposed mineral development. The mineral development is for approximately 160-acres in the E½E½ of Section 25, Township 9 South, Range 93 West, 6th P.M.

Total Acres in Described Lease: 640 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 974 Feet  
Building Unit: 974 Feet  
Public Road: 5280 Feet  
Above Ground Utility: 5280 Feet  
Railroad: 5280 Feet  
Property Line: 416 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	369-12	640	Section 25: ALL

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: 650 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: 314 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: 8759 Feet

TVD at Proposed Total Measured Depth 8427 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 H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H<sub>2</sub>S 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

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	SA-53B	36.94	0	60	150	60	0
SURF	24	8+5/8	J-55	24	0	1530	264	1530	0
1ST	7+7/8	4+1/2	P110IC	11.6	2700	8769	1303	8427	2700

Conductor Casing is NOT planned

## POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	Freshwater/Groundwater	0	0	600	600	501-1000	DWR	Hayward ranch water well domestic – stock & irrigation. Water well top perf: 1610 ft depth. Deepest water well: 600 ft depth. (TDS: 300-1500 mg/L)
Confining Layer	Wasatch	600	600	3329	3177			N/A
Hydrocarbon	Wasatch 'G' Sand	3329	3177	3765	3586	1001-10000	Other	Wasatch Producers Sec 5 & Sec 9 & Sec 15 T6S, R97W API: 05045200130001, 05045200230000, 05045106860000 (11/12/2020) (TDS: 760-2,050 mg/L)
Hydrocarbon	Fort Union	3765	3586	5023	4765			Potential Hazard: Instability
Confining Layer	Lower Wasatch	5023	4765	5409	5127			Fluid Present: Saltwater
Hydrocarbon	Ohio Creek	5409	5127	5783	5477			Wells API# 05077087650000 Buzzard Creek 22-3 Potential Hazard: Loss circulation; Fluid Present: Saltwater
Hydrocarbon	Williams Fork	5783	5477	6819	6477	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000
Hydrocarbon	Top of Gas	6819	6477	8169	7827	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000
Hydrocarbon	Cameo	8169	7827	8549	8207	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000
Hydrocarbon	Base Cameo	8549	8207	8569	8227	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000
Hydrocarbon	Rollins	8569	8227	8769	8427	>10000	Produced Water Sample	Sup & Shep 0993-25-16W API# 05077105790000

## OPERATOR COMMENTS AND SUBMITTAL

Comments: The Hayward 0993-25-14E well is not located within a mapped HPH. Laramie consulted with CPW regarding the proposed 13 wells and proposed operations at the Hayward Pad. The CPW Consultation Summary and CPW Waiver are attached to this Form 2.  
Laramie consulted with CDPHE regarding the proposed 13 wells and proposed operations at the Hayward Pad. The CDPHE Consultation Letter, which includes BMPs, are attached to this Form 2.  
BHL Coordinates: 39.239406; -107.714976

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

Oil and Gas Development Plan Name \_\_\_\_\_ OGDID #: \_\_\_\_\_

Location ID:       455725      

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

Signed: \_\_\_\_\_ Print Name:       Katy Middleton      

Title:       Regulatory Specialist       Date:       2/6/2023       Email:       kmiddleton@laramie-

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: \_\_\_\_\_  
 Expiration Date: \_\_\_\_\_

<b>API NUMBER</b>
05 077 10595 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.

COA Type	Description
0 COA	

### Best Management Practices

No	BMP/COA Type	Description
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

Att Doc Num	Name
403246404	WELL LOCATION PLAT
403246405	DEVIATED DRILLING PLAN
403246407	DEVIATED DRILLING PLAN
403246408	DIRECTIONAL DATA
403246552	SURFACE AGRMT/SURETY
403310683	WAIVERS
403310686	MINERAL LEASE MAP
403311144	OTHER
403311145	OTHER

Total Attach: 9 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)

