

FORM

2

Rev
05/22

State of Colorado

Energy & Carbon Management Commission

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07/05/2024

APPLICATION FOR PERMIT TO

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and OperateAmend ☐TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____Refile ☒ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: ELDER

Well Number: 3X-HNC-09-07-65

Name of Operator: NICKEL ROAD OPERATING LLC

ECMC Operator Number: 10669

Address: 3773 CHERRY CRK NORTH DR #670

City: DENVER State: CO Zip: 80209

Contact Name: ERIN LIND

Phone: (303)226-7375

Fax: ()

Email: ERIN.LIND@NICKELROADOPERATING.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): 20230163

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: NWSW Sec: 11 Twp: 7N Rng: 65W Meridian: 6

Footage at Surface: 1944 Feet FNL/FSL FSL 181 Feet FEL/FWL FWL

Latitude: 40.586270 Longitude: -104.638680

GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP

Date of Measurement: 01/25/2018

Ground Elevation: 4865

Field Name: WATTENBERG

Field Number: 90750

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: 7N Rng: 65W

Footage at TPZ: 1632 FNL 460 FEL

Measured Depth of TPZ: 7704

True Vertical Depth of TPZ: 7143

FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)Sec: 9 Twp: 7N Rng: 65WFootage at BPZ: 1632 FNL 460 FWLMeasured Depth of BPZ: 17340True Vertical Depth of BPZ: 7193 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 9 Twp: 7N Rng: 65WFootage at BHL: 1632 FNL 460 FWL

FNL/FSL

FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATIONCounty: WELDMunicipality: 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.? Yes

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: 06/14/2019Comments: WOGLA 19-0031**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 ☐ IndianMineral 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.)

SEC. 10-T7N-R65W: N/2NWTotal Acres in Described Lease: 80Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease #

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2343 Feet
Building Unit: 2703 Feet
Public Road: 1923 Feet
Above Ground Utility: 1889 Feet
Railroad: 5280 Feet
Property Line: 181 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.)
NIOBRARA	NBRR	407-2580	1280	SEC. 9 & 10: 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: 460 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: 164 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: 17340 Feet

TVD at Proposed Total Measured Depth 7193 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: 927 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? Yes

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

Beneficial reuse or land application plan submitted? No

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	24	16	NA	42	0	80	100	80	0
SURF	13+1/2	9+5/8	K55	36	0	1900	600	1900	0
1ST	8+1/2	5+1/2	HCP110	20	0	17340	2330	17340	1000

☐ 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	Laramie-Fox Hills	434	434	594	594	1001-10000	Other	CSU - Domestic Water Analysis Report - Larry Moore Well - 176559
Groundwater	Upper Pierre	768	768	1748	1728	1001-10000	Other	Water Quality and the Presence and Origin of Methane in the Upper Pierre Aquifer in Northeastern Weld County, Morgan County and Logan County, Colorado COGCC Project Number 2141 October 2017
Confining Layer	Pierre Shale	1748	1728	4662	4530			
Hydrocarbon	Sussex	4662	4530	5241	5087			
Hydrocarbon	Shannon	5241	5087	5272	5116			
Confining Layer	Pierre Shale	5272	5116	7194	6937			
Hydrocarbon	Niobrara	7194	6937	17340	7193			Btm MD=TD, Btm TVD=TVD @ BHL

OPERATOR COMMENTS AND SUBMITTAL

Comments

Distance from completed portion to nearest completed portion of wellbore permitted/completed in the same formation measured to the existing ELDER 2X-HC-09-07-65 (05-123-50243). Distance measured in 3D anti-collision.
Distance to nearest wellbore belonging to another operator measured to the RUBY EAST 5 (PR, Bayswater, 05-123-51736). Distance measured in 2D map view.
This location has been built and contains 13 wells in PR status. The following changes from the previously approved well info on file are being made via this refile:
- Offset Well Evaluation: updated list of wells in new template attached
No other changes are proposed at this time. Attachments have not been provided except as identified above as no changes are proposed.

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

Oil and Gas Development Plan Name _____ OGDID #: _____

Location ID: 465636

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

Signed: _____ Print Name: ERIN LIND

Title: REG & ENV MANAGER Date: 7/5/2024 Email: ERIN.LIND@NICKELROADOP

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: 9/15/2024

Expiration Date: 09/14/2027

API NUMBER

05 123 50244 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>
Drilling/Completion Operations	Operator will log three (3) additional wells with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells for each side of the pad for a total of four (4) wells logged on the pad during the second rig occupation of this location
Construction	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017)
Drilling/Completion Operations	Per COGCC Order 1-232, 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 200 psi, must contact COGCC engineer prior to stimulation. 2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
Drilling/Completion Operations	1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 2 business days spud notice for all subsequent wells drilled on the pad. 2) Comply with Rule 408.j and provide cement coverage from the end of production casing to a minimum of 500' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after all aquifers are covered.
4 COAs	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
2	Drilling/Completion Operations	Alternative Logging Program: An existing well on the pad was logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point to 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 horizontal portion of every well will be logged with a measured while-drilling gammaray log. 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 shall clearly state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run.
3	Drilling/Completion Operations	Operator acknowledges and will comply with COGCC policy for Bradenhead Monitoring during Hydraulic Fracturing treatments in the Greater Wattenberg Area dated May 29, 2012.

Total: 3 comment(s)

ATTACHMENT LIST

<u>Att Doc Num</u>	<u>Name</u>
403839111	FORM 2 SUBMITTED
403839186	OffsetWellEvaluations Data

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	NOTE: Operator verified the distance to the nearest well in the same formation at 164', an updated anti-collision report showing the distance between the wells is attached in the well file for the ELDER #3X-HNB-09-07-65 (API 123-50242)	09/11/2024
Permit	Final Review Completed.	08/29/2024
Permit	-Form back in process -Received consent from the operator for the following: 1.Adding the Refile COA for built location 2.Adding the additional open hole logging COA 3.Confirming and updated the distance to the nearest well in the same unit at 164' and attaching the anti-collision report PDF -Passed Permit Review	08/27/2024
Permit	ON HOLD: This application has been reviewed by CECMC staff and cannot be approved based on the information submitted; therefore, the CECMC is placing this form ON HOLD until additional information is received from the applicant. In compliance with § 24-65.1-108(1), C.R.S., the CECMC is providing this written request for all additional information necessary for the CECMC to respond to this application. The applicant may provide all requested additional information to CECMC via email. Upon receipt of all requested information, the CECMC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review. If the applicant no longer requires this application be approved, the applicant may request to withdraw the application. In addition to all standard required information and attachments, the CECMC hereby confirms the following information is necessary for review: 1. Adding the Refile COA for built location 2.Adding the additional open hole logging COA 3.Confirming the distance to the nearest well in the same unit	08/20/2024
Permit	Requesting the following from the operator: 1.Adding the refile COA for built locations 2.Adding the additional open hole logging COA	08/07/2024
OGLA	This Location and its associated Form 2A materials was fully evaluated during the review of this APD in accordance with the current Rules. This APD complies with all Colorado ECMC Rules and Staff does not anticipate any significant potential direct adverse impacts to public health, safety, welfare, the environment, and wildlife resources. OGLA task passed.	07/10/2024
Engineer	Offset Wells Evaluated.	07/08/2024

Total: 7 comment(s)