FORM 2 Rev 10/24

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: 404185979

Date Received: 05/14/2025

APPLICATION FOR PERMIT TO

[X] Drill [ ] Deepen [ ] Re-enter [ ] Recomplete and Operate

Amend [X]
Refile [ ]
Sidetrack [ ]

TYPE OF WELL OIL [X] GAS [ ] COALBE [ ] GEOTHERMAL [ ] OTHER: _____

ZONE TYPE SINGLE ZONE [X] MULTIPLE ZONES [ ] COMMINGLE ZONES [ ]

Well Name: Janet 0780 Well Number: 11S-4H9

Name of Operator: FULCRUM ENERGY OPERATING LLC ECMC Operator Number: 10805

Address: 240 SAINT PAUL STREET SUITE 502

City: DENVER State: CO Zip: 80206

Contact Name: Heidi Kaczor Phone: (303)981 5409 Fax: ( )

Email: Heidi.Kaczor@fulcrumeo.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

ECMC Financial Assurance

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

Surety ID Number (if applicable): 20230091

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: NENE Sec: 5 Twp: 7N Rng: 80W Meridian: 6

Footage at Surface: 377 Feet FNL (FNL/FSL) 839 Feet FEL (FEL/FWL)

Latitude: 40.614118 Longitude: -106.390344

GPS Data: GPS Quality Value: 1.1 Type of GPS Quality Value: PDOP Date of Measurement: 03/20/2025

Ground Elevation: 8098

Field Name: NORTH PARK HORIZONTAL NIOBRARA Field Number: 60120

Well Plan: is [ ] Directional [X] 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: 4 Twp: 7N Rng: 80W Footage at TPZ: 100 FNL (FNL/FSL) 1907 FWL (FEL/FWL)

Measured Depth of TPZ: 9497 True Vertical Depth of TPZ: 8571

Base of Productive Zone (BPZ)

Sec: 9 Twp: 7N Rng: 80W Footage at BPZ: 100 FSL 1976 FWL
FNL/FSL FEL/FWL

Measured Depth of BPZ: 20384 True Vertical Depth of BPZ: 7555

Bottom Hole Location (BHL)

Sec: 9 Twp: 7N Rng: 80W Footage at BHL: 100 FSL 1976 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: JACKSON 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 and §37-90.5-107(2)(b)(I) C.R.S, the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas or Deep Geothermal Locations.

The Energy and Carbon Management Act and the Geothermal Resources Act provide 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.

Does the Relevant Local Government regulate the siting of Oil and Gas and Deep Geothermal 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: Waived Date of Final Disposition: 05/23/2019

Comments: Jackson County does not regulate oil & gas per letter 5/23/19.

GEOTHERMAL

Well Overview

The following questions determine informational requirements based on Well type:

Which type of Geothermal Well is this? Select one of the following:

Will this well be constructed using cementing methodologies other than those listed in Rule 408.f?

If Yes, what method will be used:

Please describe the cementing method to be used in detail:

Geothermal Resource Units

Fill out the information below to submit an application for a Geothermal Resource Unit (GRU) as part of the current permit application. This may also be completed later using a Form 4 Sundry.

Will this Well be in an existing GRU?

Are you submitting your application for a new GRU as part of the current application?

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

Surface Owner of the land at this Well's Oil and Gas Or Deep Geothermal Location: [X] Fee [ ] State [ ] Federal [ ] Indian

Mineral Owner beneath this Well's Oil and Gas Or Deep Geothermal Location: [X] 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):

- [X] 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.)

- Corrected lease description to T7N R80W Sec. 4, 9, 16: W2

Total Acres in Described Lease: 960 Described Mineral Lease is: [X] 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: 3509 Feet
Above Ground Utility: 3310 Feet
Railroad: 5280 Feet
Property Line: 1761 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	531-52	1281	Township 7 North, Range 80 West Section 4,9,10,21: W2

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: 100 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: 340 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: 20384 Feet TVD at Proposed Total Measured Depth 7555 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_2S 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? _____

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	X52	82.85	0	120	598	120	0
SURF	13+1/2	9+5/8	L80	40	0	4639	1352	4639	0
1ST	8+1/2	5+1/2	P110	20	0	20384	2993	20384	2869

☐ 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	Alluvium	0	0	50	50	0-500	USGS	Site Name: SB00708019BCD1 TD@500' TDS@1240
Groundwater	Coalmont	50	50	3170	3027	501-1000	Groundwater Atlas	ON-010 Average Coalmont TDS of 400. No nearby USGS wells.
Confining Layer	Lance	3170	3027	4305	4084			
Confining Layer	Fox Hills	4305	4084	4816	4558			
Confining Layer	Pierre	4816	4558	5887	5556			
Hydrocarbon	Sussex	5887	5556	6553	6176			
Hydrocarbon	Shannon	6553	6176	7834	7368			
Confining Layer	Mancos	7834	7368	8136	7650			
Hydrocarbon	Niobrara	8136	7650	20384	7555			Bottom TVD is bottom of the well and not bottom of the formation; The formation is not planned to be exited

OPERATOR COMMENTS AND SUBMITTAL

Comments

The upper shallow section of the North Park is not well defined. We used the depth and lithology components to define two separate sections; one being sand (as North Park FM) which is most likely a possible source of groundwater and the second being a shale (as Coalmont FM) which should not be a source of groundwater. The shale should not be a source of groundwater and has not been found to be a source of groundwater in the USGS dataset.

Landing Point on attached plat is the actual point where production will begin. TPZ on attached plat is the point where the well enters the producing formation before the well will be perforated.

These wells are “toe up” to account for faulting and formation shifts along the wellbore. The TVD are not out of formation.

Gregory 0780 5-4H9 (05-057-06642) - Well name to Janet 0780 11S-4H9

Original approved SHL in Form 2 Doc #403845910 = 432’ FNL, 797’ FEL of Sec 5, T7N, R80W à SHL would be moving ~54’ north and slightly west, 377’ FNL, 839’ FEL of Sec 5, T7N, R80W

This will facilitate a smoother rig move, decrease interference with the newly drilled wells (PRU Janet 0880 3, 4, 5 & 6-33H21) and ensure no pad expansion or additional surface disturbance necessary for drilling and completion operations

Well will remain in the approved DSU Order 531-52

Nearest well in unit per 2-D calculation is the Janet 0780 12S-4H9 @ 340'.
No well belonging to another operator within 1,500 feet.

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

Oil and Gas Development Plan Name Janet OGDP OGDP ID#: 486502

Location ID: 487288

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

Signed: Print Name: Justin Garrett

Title: Sr. Regulatory Analyst Date: 5/14/2025 Email: regulatory@ascentgeomatics.c

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: 7/15/2025

Expiration Date: 06/25/2027

API NUMBER

05 057 06642 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.

COA Type	Description
Drilling/Completion Operations	1)Submit a Form 42(MIRU) electronically to ECMC two business days prior to MIRU and a Form 42(SP) two business days prior to spud for each of the wells on this pad. 2)If production casing is set provide cement coverage from TD(production casing shoe) to 200' above the surface casing shoe or the base of the Coalmont, whichever is shallower. Run and submit CBL to verify cemented intervals. 3)Include all identifiable formation tops from the top of the Coalmont to TD on the Form 5.
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 is observed or if there is evidence of communication, Operator must contact ECMC engineering for approval prior to stimulation. 2)If a delayed completion, a second test is required between 6-9 months after rig release. 3)A post-production test within 60 days after first sales
2 COAs	

Operator Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad during the first rig occupation will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for one of the stratigraphically deepest wells on the pad. 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 gamma-ray 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 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.
2	Drilling/Completion Operations	Blowout Prevention Equipment ("BOPE"): A double ram annular preventer will be used during drilling.

Total: 2 comment(s)

ATTACHMENT LIST

Att Doc Num	Name
404185979	FORM 2 SUBMITTED
404186034	OffsetWellEvaluations Data
404186549	DEVIATED DRILLING PLAN
404186557	DIRECTIONAL DATA
404203909	CORRESPONDENCE
404204200	WELL LOCATION PLAT
404279591	OFFSET WELL EVALUATION

Total Attach: 7 Files

General Comments

User Group	Comment	Comment Date
Permit	Final Review Complete.	07/15/2025
Engineer	Groundwater: Alluvial, Coalmont Deepest water well: 270'(1 mi, 13 records) •Surface Casing Check complete •Offset well review complete 408.t - No wells 408.u - No wells •Engineering review complete	07/08/2025
OGDP Approval	The Commission approved OGDP #486502 on June 26, 2024 for the Oil and Gas Location related to this Form 2. OGLA task passed.	06/30/2025
Permit	- Corrected lease description to T7N R80W Sec. 4, 9, 16: W2 -Corrected total acres of lease to 960 - Added unit acreage configuration (1281 Township 7 North, Range 80 West Section 4,9,10,21: W2) Permit review complete	06/18/2025

Total: 4 comment(s)