

FORM

2

Rev  
05/22

## State of Colorado

## Energy &amp; Carbon Management Commission

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

Document Number:

403846094

(SUBMITTED)

Date Received:

08/05/2024

## 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: Crystal 6-65 22-10

Well Number: 3HN

Name of Operator: GMT EXPLORATION COMPANY LLC

ECMC Operator Number: 10243

Address: 4949 S NIAGARA ST SUITE 250

City: DENVER

State: CO

Zip: 80237

Contact Name: Maxwell Blair

Phone: (303)586-9291

Fax: (720)946-3028

Email: mblair@gmtexploration.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): 20070102

## 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: NESE Sec: 22 Twp: 6S Rng: 65W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 1932 Feet FSL 878 Feet FEL

Latitude: 39.512210

Longitude: -104.645894

GPS Data:

GPS Quality Value: 1.8

Type of GPS Quality Value: PDOP

Date of Measurement: 04/25/2019

Ground Elevation: 6179

Field Name: WILDCAT

Field Number: 99999

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: 22 Twp: 6S Rng: 65W

Footage at TPZ: 2042 FNL 1504 FWL

Measured Depth of TPZ: 9204

True Vertical Depth of TPZ: 8189

FNL/FSL

FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 10 Twp: 6S Rng: 65WFootage at BPZ: 600 FNL 1510 FWLMeasured Depth of BPZ: 21208True Vertical Depth of BPZ: 8189 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 10 Twp: 6S Rng: 65WFootage at BHL: 550 FNL 1509 FWLFNL/FSLFEL/FWL**LOCAL GOVERNMENT PERMITTING INFORMATION**County: ELBERTMunicipality: 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: Waived Date of Final Disposition: \_\_\_\_\_Comments: Oil and Gas Pad sites require a building permit site plan, which is in development. Elbert County waived its right to precede.**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.)

N/2, SE/4, Section 22, T6S, R65WTotal Acres in Described Lease: 480Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

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

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 922 Feet  
Building Unit: 2176 Feet  
Public Road: 2656 Feet  
Above Ground Utility: 974 Feet  
Railroad: 5280 Feet  
Property Line: 719 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	535-1184	1600	10&15:All;22:N/2

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: 600 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: 452 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

Approved Order 535-1184

## DRILLING PROGRAM

Proposed Total Measured Depth: 21258 Feet

TVD at Proposed Total Measured Depth 8189 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: 408 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? 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	N/A	42	0	80	100	80	0
SURF	12+1/2	9+5/8	J-55	36	0	2650	900	2650	0
1ST	8+1/2	5+1/2	HCP110	20	0	21258	3190	21258	

☐ 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	Dawson	46	46	507	507	0-500	Other	COGIS-Sample Site Inquiry
Groundwater	Denver	548	548	1467	1435	0-500	Other	COGIS-Sample Site Inquiry
Groundwater	Upper Arapahoe	1510	1474	2000	1910	0-500	Other	COGIS-Sample Site Inquiry
Groundwater	Laramie-Fox Hills	2326	2197	2774	2592	0-500	Other	COGIS-Sample Site Inquiry
Confining Layer	Pierre Shale	2774	2592	3644	3360			
Hydrocarbon	Sussex-Terry	3644	3360	3815	3510			Not Productive in Area
Hydrocarbon	Shannon-Hygiene	6196	5609	6501	5880			Not Productive in Area
Confining Layer	Lower Pierre Shale	6501	5880	8627	7919			
Confining Layer	Sharon Springs Shale	8627	7919	8639	7929			Sloughing Clay
Hydrocarbon	Niobrara	8639	7929	21258	8189			The TVD of the deepest hydrocarbon zone is the bottom of the well and not the bottom of the formation. The formation is not planned to be exited.

## OPERATOR COMMENTS AND SUBMITTAL

Comments



Nearest wellbore in proposed unit is the Crystal 6-65 22-10 4HN per anti-collision.

Nearest permitted or existing wellbore belonging to another operator is the UPRR Welchel 1-15 (API: 05-039-06386) DA Status per anti-collision report.

This well has a bottom-hole location beyond the unit boundary setback. The bottom of the completed interval will be within the unit boundary setback at 600' FNL/FSL and 1509'FWL of Section 10. The wellbore beyond the unit boundary setback will be physically isolated and will not be completed.

This application is in a Comprehensive Area Plan \_\_\_\_\_ No \_\_\_\_\_ CAP #: \_\_\_\_\_  
Oil and Gas Development Plan Name \_\_\_\_\_ OGDP ID#: \_\_\_\_\_  
Location ID: 479191

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

Signed: \_\_\_\_\_ Print Name: Andrea Gross

Title: Permitting Agent Date: 8/5/2024 Email: agross@upstreampm.com

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: \_\_\_\_\_

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

**API NUMBER**

05 039 06735 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**

0 COA

**Best Management Practices**

**No BMP/COA Type**

**Description**

1	Drilling/Completion Operations	Logging: The Crystal 6-65 22-10HN (API No. 05-039-06742) well drilled on the pad was logged with an open-hole Resistivity Log and Gamma Ray Log from the kickoff point 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 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 shall clearly state "No open-hole logs were run. The Crystal 6-65 22-10HN (API No. 05-039-06742) is the well in which open-hole logs were run."
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Total: 1 comment(s)

**ATTACHMENT LIST**

**Att Doc Num**

**Name**

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Total Attach: 0 Files

**General Comments**

**User Group**

**Comment**

**Comment Date**

		Stamp Upon Approval
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Total: 0 comment(s)

