



Base of Productive Zone (BPZ)  
 Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_ Footage at BPZ: \_\_\_\_\_  
 Measured Depth of BPZ: \_\_\_\_\_ True Vertical Depth of BPZ: \_\_\_\_\_ FNL/FSL \_\_\_\_\_ FEL/FWL \_\_\_\_\_

Bottom Hole Location (BHL)  
 Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_ Footage at BHL: \_\_\_\_\_  
 FNL/FSL \_\_\_\_\_ FEL/FWL \_\_\_\_\_

**LOCAL GOVERNMENT PERMITTING INFORMATION**

County: LAS ANIMAS 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: 09/22/2022

Comments: \_\_\_\_\_

**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.)

T29S R54W Section 36: NE, E2NW, SWNW, S2

Total Acres in Described Lease: 600 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # CO-112984

**SAFETY SETBACK INFORMATION**

Distance from Well to nearest:

Building: 3991 Feet  
Building Unit: 3991 Feet  
Public Road: 209 Feet  
Above Ground Utility: 548 Feet  
Railroad: 5280 Feet  
Property Line: 790 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.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
|                        |                |                         |                               |                                      |

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? No

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: \_\_\_\_\_ 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: \_\_\_\_\_ Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: 790 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: 5280 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: 2500 Feet

TVD at Proposed Total Measured Depth 2500 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? No

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? 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   | 12+1/4       | 9+5/8          | J-55  | 36    | 0             | 35            | 9         | 35      | 0       |
| SURF        | 8+3/4        | 7              | J-55  | 26    | 0             | 1394          | 78        | 1394    | 0       |
| OPEN HOLE   | 6+1/8        |                |       |       | 1394          | 2500          |           |         |         |

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   |
|-----------------|---------------------|----------|------------|-------------|---------------|------------|-------------|---|
| Hydrocarbon     | None                | 0        | 0          | 2500        | 2500          |            |             | No Hydrocarbons anticipated.                                      |
| Confining Layer | Quaternary Alluvium | 0        | 0          | 35          | 35            |            |             | Boulders, sand, silt, clays                                       |
| Confining Layer | Mancos/Graneros     | 35       | 35         | 665         | 665           |            |             | Shale, sand   |
| Groundwater     | Dakota              | 665      | 665        | 797         | 797           | 501-1000   | Other       | Offset well, DWR, Surface Owner, Sand                             |
| Groundwater     | Purgatoire          | 797      | 797        | 901         | 901           | 501-1000   | Other       | Offset well, DWR, Surface Owner, Sand, Limestone, Shale           |
| Confining Layer | Morrison            | 901      | 901        | 1041        | 1041          |            |             | Shale, limestone, Sand  |
| Confining Layer | Entrada             | 1041     | 1041       | 1161        | 1161          |            |             | Sand, shale   |
| Confining Layer | Lykins              | 1161     | 1161       | 1328        | 1328          |            |             | Dolomite, shale   |
| Confining Layer | Blaine              | 1328     | 1328       | 1404        | 1404          |            |             | Anhydrite, Gypsum, Shale, Lime                                    |
| Groundwater     | Lyons               | 1404     | 1404       | 1659        | 1659          | >10000     | Other       | Sand with helium, nitrogen, carbon dioxide gases. No hydrocarbons |
| Confining Layer | Fountain            | 1659     | 1659       | 2500        | 2500          |            |             | Sand, shale, silt   |

## OPERATOR COMMENTS AND SUBMITTAL

Comments

This well is an exploratory helium well. This well will not be hydraulically stimulated. Hydrocarbons are not anticipated.

To minimize disturbance and loss of topsoil is present minimal cut and fill of the location is planned. Liners will be installed under the rig and major components.

The well will be air or air/foam drilled, with a partially buried steel cuttings tank will be used to capture drill cuttings. Excavation will include the installation of a 5' by 5' galvanized steel culvert as a wellhead cellar.

This application is in a Comprehensive Area Plan No CAP #: \_\_\_\_\_  
Oil and Gas Development Plan Name State 35 & 36 OGDP OGDP ID#: 482057  
Location ID: 483010

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: Permit Agent Date: 10/7/2022 Email: agross@upstreampm.com

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: \_\_\_\_\_

API NUMBER

05

### 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**

| COA Type | Description |
|----------|-------------|
| 0 COA    |             |

### Best Management Practices

**No BMP/COA Type** **Description**

| No BMP/COA Type                  | Description  |
|----------------------------------|--|
| 1 Drilling/Completion Operations | The well be logged open hole from TD to 7 inch casing with a triple combo log suite. Additionally a GR/CBL/Neutron will run inside 7 inch casing to surface. |

Total: 1 comment(s)

### Attachment List

**Att Doc Num** **Name**

| Att Doc Num | Name               |
|-------------|--------------------|
| 403191174   | WELL LOCATION PLAT |

Total Attach: 1 Files

## General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u>    |
|-------------------|----------------|------------------------|
|                   |                | Stamp Upon<br>Approval |

Total: 0 comment(s)



**Public Comments**

No public comments were received on this application during the comment period.

