

FORM  
2  
Rev  
12/20

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:  
402730420  
Date Received:  
08/11/2021

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: State Pikes 4-65 Well Number: 36-31-32 1AH  
Name of Operator: CRESTONE PEAK RESOURCES OPERATING LLC COGCC Operator Number: 10633  
Address: 1801 CALIFORNIA STREET #2500  
City: DENVER State: CO Zip: 80202  
Contact Name: Kathy Denzer Phone: (720)410-8519 Fax: ( )  
Email: RegulatoryState@crestonepr.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160104

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SENE Sec: 35 Twp: 4S Rng: 65W Meridian: 6  
Footage at Surface: 1945 Feet FNL 600 Feet FEL  
Latitude: 39.661979 Longitude: -104.624442  
GPS Data: GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP Date of Measurement: 02/27/2018  
Ground Elevation: 5870  
Field Name: DJ HORIZONTAL NIOBRARA Field Number: 16950

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: 36 Twp: 4S Rng: 65W Footage at TPZ: 440 FNL 330 FWL  
Measured Depth of TPZ: 8505 True Vertical Depth of TPZ: 7960 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)  
Sec: 32 Twp: 4S Rng: 64W Footage at BPZ: 400 FNL 990 FWL  
Measured Depth of BPZ: 19847 True Vertical Depth of BPZ: 7960 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)  
Sec: 32 Twp: 4S Rng: 64W Footage at BHL: 400 FNL 990 FWL  
FNL/FSL FEL/FWL

## LOCAL GOVERNMENT PERMITTING INFORMATION

County: ARAPAHOE 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: 11/19/2018

Comments: Administrative Energy Use by Special Review was approved on 11/19/2018.

## 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 Financial Assurance (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.)

Please see Lease Map

Total Acres in Described Lease: 21037 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # 1960.12

### SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2284 Feet  
Building Unit: 2982 Feet  
Public Road: 1938 Feet  
Above Ground Utility: 615 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.

Railroad: 5280 Feet  
Property Line: 600 Feet

## 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           | 535-1353                | 1440                          | T4S R64W Section 31: All, Section 32: W2W2; T4S R65W Section 36: 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: 330 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: 640 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: 19847 Feet TVD at Proposed Total Measured Depth 7960 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? 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             | A53B  | 42.09 | 0             | 100           | 114       | 100     | 0       |
| SURF        | 13+1/2       | 9+5/8          | J55   | 40    | 0             | 3296          | 1760      | 3296    | 0       |
| 1ST         | 8+1/2        | 5+1/2          | P110  | 20    | 0             | 19847         | 2802      | 19847   |         |

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     | Denver                       | 0        | 0          | 1555        | 1555          | 0-500      | Groundwater Atlas        | USGS HA-646 (Robson & Romero, 1982)       |
| Groundwater     | Laramie                      | 1555     | 1555       | 1894        | 1874          | 0-500      | Groundwater Atlas        | USGS HA 650 (Robson & Romero, 1981)       |
| Groundwater     | Fox Hills                    | 1894     | 1874       | 2142        | 2119          | 0-500      | Groundwater Atlas        | USGS HA-650 (Robson & Romero)             |
| Confining Layer | Pierre Shale                 | 2142     | 2119       | 2494        | 2463          |            |                          |   |
| Groundwater     | Upper Pierre Aquifer         | 2494     | 2463       | 3215        | 3170          | 501-1000   | Electric Log Calculation | Airline Road - State 15-12 (05-005-06590) |
| Confining Layer | Base of Upper Pierre Aquifer | 3215     | 3170       | 5143        | 5062          |            |                          |   |
| Hydrocarbon     | Larimer                      | 5143     | 5062       | 5471        | 5384          |            |                          |   |
| Hydrocarbon     | Sussex                       | 5471     | 5384       | 6299        | 6195          |            |                          |   |
| Hydrocarbon     | Shannon                      | 6299     | 6195       | 7882        | 7705          |            |                          |   |
| Confining Layer | Sharon Springs               | 7882     | 7705       | 7997        | 7789          |            |                          |   |
| Hydrocarbon     | Niobrara                     | 7997     | 7789       | 8600        | 7960          |            |                          |   |

## OPERATOR COMMENTS AND SUBMITTAL

Comments: Distance from completed portion of the wellbore to nearest wellbore permitted or completed well in the same formation and within the unit was measured to the proposed State Pikes 4-65-36-31-32 1BH measured in 2-D.

This location has an approved COGCC OGLA that is valid until 9/5/2022 therefore, an OGDG is not required.

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

OGDP ID#: \_\_\_\_\_ OGDG Name: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Location ID: 467266 Location Name: STATE BIERSTADT 4-65 35-34 2AH

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: 8/11/2021 Email: agross@upstreampm.com

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 COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 11/19/2021

Expiration Date: 11/18/2024

|                                      |
|--------------------------------------|
| <b>API NUMBER</b><br>05 005 07494 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.

### Condition of Approval

| <u>COA Type</u>                | <u>Description</u>  |
|--------------------------------|---|
| Drilling/Completion Operations | 1) Submit Form 42 electronically to COGCC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad.<br>2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with a cement bond log.  |
| 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:<br>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.<br>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.<br>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance. |
| 2 COAs                         |   |

### Best Management Practices

| <u>No</u> | <u>BMP/COA Type</u>            | <u>Description</u>  |
|-----------|--------------------------------|---|
| 1         | Drilling/Completion Operations | Alternative Logging Program: One of the first wells drilled on the pad will be logged with open-hole resistivity log and gamma-ray log from the kick-off 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 state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run. |
| 2         | 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.   |

Total: 2 comment(s)

### Applicable Policies and Notices to Operators

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.  
<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

### Attachment List

| <u>Att Doc Num</u> | <u>Name</u>                |
|--------------------|----------------------------|
| 402730420          | FORM 2 SUBMITTED           |
| 402731719          | OffsetWellEvaluations Data |
| 402731721          | WELL LOCATION PLAT         |
| 402731724          | DEVIATED DRILLING PLAN     |
| 402731725          | DIRECTIONAL DATA           |
| 402757164          | LEASE MAP                  |
| 402876860          | OFFSET WELL EVALUATION     |

Total Attach: 7 Files

### General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u> |
|-------------------|--|---------------------|
| OGLA              | Per Operator, chemical storage will be over 500 feet from the Ordinary High Water Mark of the proximal mapped intermittent stream.   | 11/16/2021          |
| OGLA              | Location lies within proximity to a mapped intermittent stream. Set to pending regarding Rule 1202.a.(3).  | 11/11/2021          |
| Permit            | Final Review Completed.  | 08/27/2021          |
| Permit            | Permitting review complete.  | 08/25/2021          |
| Permit            | The State Land Board has no concerns with this application.  | 08/25/2021          |
| Permit            | Corrected surface owner to State per operator request.   | 08/12/2021          |
| Permit            | Received reply from the State Land Board: At this time the State Land Board has an issue with the proposed wellbores. The current SUA does not allow for production in section 32. SLB is currently working with the Operator to amend the agreement.  | 08/12/2021          |
| Permit            | Emailed the SLB to notify them of this pending application.  | 08/03/2021          |
| Permit            | Return to draft:<br>- Surety ID invalid.<br>- "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.?" answered incorrectly.<br>- T4S R64W S32 does not appear to be in the State mineral lease; 'Fee' not indicated in addition to 'State' in 'Minerals Developed by Well'<br>- Range incorrect on BPZ & BHL.<br>- Operator should be able to enter Casing Grade now. | 08/03/2021          |

Total: 9 comment(s)