

FORM  
2

Rev  
05/22

# State of Colorado Oil and Gas Conservation Commission

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Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403230145

**(SUBMITTED)**

Date Received:

12/02/2022

## 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: Property Reserve 4-65 Well Number: 3-4 4AH  
 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: Nathan Bennett Phone: (303)312-8166 Fax: ( )  
 Email: nbennett@civiresources.com

### FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

#### COGCC Financial Assurance

The Operator has provided or will provide Financial Assurance to the COGCC for this Well.

Surety ID Number (if applicable): 2016040

#### 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: 2 Twp: 4S Rng: 65W Meridian: 6

Footage at Surface: 1549 Feet FSL 553 Feet FWL

Latitude: 39.729865 Longitude: -104.638752

GPS Data: GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP Date of Measurement: 04/19/2021

Ground Elevation: 5631

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: 3 Twp: 4S Rng: 65W Footage at TPZ: 1370 FSL 330 FEL

Measured Depth of TPZ: 8185 True Vertical Depth of TPZ: 7850 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 4 Twp: 4S Rng: 65W Footage at BPZ: 1370 FSL 330 FWL
Measured Depth of BPZ: 18101 True Vertical Depth of BPZ: 7850 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 4 Twp: 4S Rng: 65W Footage at BHL: 1370 FSL 330 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? [X] Yes [ ] No

[X] 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: 10/11/2022

Comments: Approved AEUSR: Approved 10/11/22

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

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

Mineral Owner beneath this Well's Oil and Gas 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.)

T4S R65W Sec. 2: All; Sec. 14: E/2; E/2NW/4; SW/4NW/4; T4S R64W: Sec. 4: NW/4NW/4; Sec. 6: S/2; NW/4; Sec. 18: N/2; N/2SW/4

Total Acres in Described Lease: 1980 Described Mineral Lease is: [X] Fee [ ] State [ ] Federal [ ] Indian

Federal or State Lease #

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 3703 Feet  
Building Unit: 3923 Feet  
Public Road: 535 Feet  
Above Ground Utility: 578 Feet  
Railroad: 3316 Feet  
Property Line: 523 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	535-1398	1280	T4S R65W Sec. 3, 4: 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: 700 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

Order Nos. 535-460, 535-906, 535-1168, & 535-1288 are amended to approve an additional 1 horizontal well, for a total of 9 horizontal wells, 1,280-acre drilling & spacing unit established for the Application Lands for DSU # 2 for production from Niobrara.

## DRILLING PROGRAM

Proposed Total Measured Depth: 18101 Feet

TVD at Proposed Total Measured Depth 7850 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: 0 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	36	0	3205	1068	3205	0
1ST	8+1/2	5+1/2	P110	17	0	18101	2846	18101	

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	665	664	0-500	Groundwater Atlas	USGS HA-646 (Robson & Romero, 1981)
Groundwater	Arapahoe	665	664	1240	1239	0-500	Groundwater Atlas	USGS HA-647 (Robson & Romero, 1981)
Groundwater	Laramie-fox Hills	1240	1239	1941	1939	0-500	Groundwater Atlas	USGS HA-650 (Robson & Romero, 1981)
Confining Layer	Pierre Shale	1941	1939	2402	2399			
Groundwater	Upper Pierre Aquifer	2402	2399	3072	3069	1001-10000	Electric Log Calculation	Amoco-Westan-Fischahs 1 (05-005-06204-0000)
Confining Layer	Base of Upper Pierre Aqu	3072	3069	4169	4164			
Hydrocarbon	Larimer	4169	4164	4284	4279			
Confining Layer	Pierre Shale	4284	4279	5295	5289			
Hydrocarbon	Sussex	5295	5289	5405	5399			
Confining Layer	Pierre Shale	5405	5399	6026	6019			
Hydrocarbon	Shannon	6026	6019	6427	6419			
Confining Layer	Pierre Shale	6427	6419	7616	7589			
Confining Layer	Sharon Springs	7616	7589	7704	7659			
Hydrocarbon	Niobrara	7704	7659	8186	7850			



## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	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	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)

### Attachment List

<b>Att Doc Num</b>	<b>Name</b>
403230195	DEVIATED DRILLING PLAN
403230198	OTHER
403230202	DIRECTIONAL DATA
403232238	OffsetWellEvaluations Data
403243184	WELL LOCATION PLAT

Total Attach: 5 Files

### General Comments

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
		Stamp Upon Approval

Total: 0 comment(s)