FORM 2 Rev 05/22

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: 403643345 **(SUBMITTED)**

Date Received: 01/18/2024

APPLICATION FOR PERMIT TO

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

Amend [ ] Refile [ ] Sidetrack [ ]

TYPE OF WELL OIL [X] GAS [ ] COALBED [ ] OTHER:

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

Well Name: King 3-65 Well Number: 28-29- 1AH

Name of Operator: CRESTONE PEAK RESOURCES OPERATING LLC COGCC Operator Number: 10633

Address: 555 17TH STREET SUITE 3700

City: DENVER State: CO Zip: 80202

Contact Name: Jeff Annable Phone: (303)312-8529 Fax: ( )

Email: jannable@civiresources.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance

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

Surety ID Number (if applicable): 20160104

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: 28 Twp: 3S Rng: 65W Meridian: 6

Footage at Surface: 1838 Feet FSL (FNL/FSL) 435 Feet FEL (FEL/FWL)

Latitude: 39.759543 Longitude: -104.660996

GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 06/28/2023

Ground Elevation: 5585

Field Name: DJ HORIZONTAL NIOBRARA Field Number: 16950

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: 28 Twp: 3S Rng: 65W Footage at TPZ: 380 FNL (FNL/FSL) 330 FEL (FEL/FWL)

Measured Depth of TPZ: 8697 True Vertical Depth of TPZ: 7690

Base of Productive Zone (BPZ)

Sec: 29 Twp: 3S Rng: 65W Footage at BPZ: 380 FNL 330 FWL

FNL/FSL FEL/FWL

Measured Depth of BPZ: 18603 True Vertical Depth of BPZ: 7690

Bottom Hole Location (BHL)

Sec: 29 Twp: 3S Rng: 65W Footage at BHL: 380 FNL 330 FWL

FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: ADAMS Municipality: Aurora

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: 12/19/2023

Comments: Case Number 2018-6001-01

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.)

Township 3 South, Range 65 West
Section 28: All

Total Acres in Described Lease: 640 Described Mineral Lease is: [X] Fee [ ] State [ ] Federal [ ] Indian

Federal or State Lease #

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building:	4253	Feet
Building Unit:	4212	Feet
Public Road:	428	Feet
Above Ground Utility:	407	Feet
Railroad:	5280	Feet
Property Line:	435	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	535-1457	1280	T3S R65W SEC 28: ALL, SEC 29: 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: 610 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

SUBMITTED

DRILLING PROGRAM

Proposed Total Measured Depth: 18603 Feet TVD at Proposed Total Measured Depth 7690 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: 226 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:

SUBMITTED

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	36.95	0	80	105	80	0
SURF	13+1/2	9+5/8	J-55	36	0	3415	1390	3415	0
1ST	8+1/2	5+1/2	P-110	20	0	18603	2929	18603	3415

☐ 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	24	24	762	760	0-500	Groundwater Atlas	USGS HA-646 (Robson & Romero, 1981)
Groundwater	Arapahoe	762	760	1440	1410	0-500	Groundwater Atlas	USGS HA-647 (Robson et al, 1981)
Groundwater	Laramie-Fox Hills	1440	1410	2046	1960	0-500	Groundwater Atlas	USGS HA-650 (Robson et al, 1981)
Confining Layer	Pierre Formation	2046	1960	2587	2450			
Groundwater	Upper Pierre	2587	2450	3316	3110	501-1000	Electric Log Calculation	Flader Industries Inc B-1 (05-005-06536-0000)
Confining Layer	Base of Upper Pierre	3316	3110	4492	4175			
Hydrocarbon	Parkman Sandstone	4492	4175	4630	4300			Not productive in this area
Confining Layer	Pierre Formation	4630	4300	5679	5250			
Hydrocarbon	Sussex Sandstone	5679	5250	5894	5445			Not productive in this area
Confining Layer	Pierre Formation	5894	5445	6534	6025			
Hydrocarbon	Shannon Sandstone	6534	6025	6993	6440			Not productive in this area
Confining Layer	Pierre Formation	6993	6440	8420	7630			
Subsurface Hazard	Sharon Springs	8420	7630	8697	7690			Sloughing shales
Hydrocarbon	Niobrara	8697	7690	18603	7690			

OPERATOR COMMENTS AND SUBMITTAL

Comments: The distance to the completed portion of the nearest well in the same unit on the "Spacing & Formation" tab is measured to the proposed King 3-65 28-29 1BH. This distance was measured in 2-dimensional space.

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells was measured to the EMMA E MCVEY #1 (API Number 05-001-06531). This wellbore is plugged and abandoned.

Attached as OTHER, is the anti-collision analysis which factors in three dimensional measurements as well as gyro surveys performed on some of the offset wellbores. All measurements to offset wellbores belonging to another operator were derived from this analysis.

This application is in a Comprehensive Area Plan: Yes CAP #: 210700116

Oil and Gas Development Plan Name: King 3-65 28-29 OGDP OGDP ID#: 485274

Location ID: 449176

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

Signed: _____ Print Name: Jeff Annable

Title: Manager, Regulatory Date: 1/18/2024 Email: jannable@civiresources.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
0 COA	

Best Management Practices

No	BMP/COA Type	Description
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

Att Doc Num	Name
403645197	WELL LOCATION PLAT
403645198	OTHER
403645200	DEVIATED DRILLING PLAN
403645205	DIRECTIONAL DATA
403651096	OffsetWellEvaluations Data

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)