

FORM
2

Rev
05/22

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:

403214585

Date Received:

11/10/2022

APPLICATION FOR PERMIT TO

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

Amend ☐

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____

Refill ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: Cosslett East

Well Number: 1C-22H-H168

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: (303)312-8131

Fax: ()

Email: kdenzer@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): 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: SENE Sec: 22 Twp: 1N Rng: 68W Meridian: 6

Footage at Surface: 1715 Feet FNL/FSL 1188 Feet FEL/FWL

Latitude: 40.039231 Longitude: -104.984294

GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP

Date of Measurement: 07/24/2019

Ground Elevation: 5183

Field Name: WATTENBERG

Field Number: 90750

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: 23 Twp: 1N Rng: 68W

Footage at TPZ: 460 FNL 1040 FWL

Measured Depth of TPZ: 8741

True Vertical Depth of TPZ: 7730

FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 26 Twp: 1N Rng: 68W Footage at BPZ: 460 FSL 1040 FWL
Measured Depth of BPZ: 18426 True Vertical Depth of BPZ: 7730 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 26 Twp: 1N Rng: 68W Footage at BHL: 460 FSL 1040 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD 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.? Yes

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: 10/26/2020

Comments: The WOGLA 1041WOGLA20-0018 was approved on October 26, 2020.

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.)

T1N R67W Sec. 19: Lots 1, 2; E/2W/2, SE/4; Sec. 29: NW/4, S/2; T1N R68W Sec. 3: Lot 2, S/2NW/4, SW/4, SE/4; Sec. 10: NW/4; S/2; Sec. 11: NW/4; S/2; Sec. 13: NW/4; S/2; Sec. 14: NW/4; S/2; Sec. 15: NW/4; S/2; Sec. 23: NW/4; S/2; Sec. 25: NW/4; S/2; Sec. 27: NW/4; S/2; Sec. 35: NW/4; S/2.

Total Acres in Described Lease: 5753 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian
Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 632 Feet
Building Unit: 1013 Feet
Public Road: 620 Feet
Above Ground Utility: 917 Feet
Railroad: 4238 Feet
Property Line: 307 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	407-2533	1920	T1N R68W Sec. 22: E/2; Sec. 23: All; Sec. 26: All; Sec. 27: E/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: 460 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: 320 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

The OGDG Order No. 407-3397 approved the expansion of the Cosslett pad and approved the COGCC Form 2A.

DRILLING PROGRAM

Proposed Total Measured Depth: 18426 Feet

TVD at Proposed Total Measured Depth 7730 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: 31 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S 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:

CASING PROGRAM

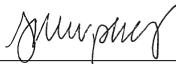
Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	A53B	42.09	0	100	114	100	0
SURF	13+1/2	9+5/8	J55	36	0	2435	812	2435	0
1ST	8+1/2	5+1/2	P110	17	0	18426	2878	18426	

☐ 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	154	154	501-1000	Groundwater Atlas	USGS HA-646 (Robson & Romero, 1981)
Groundwater	Laramie	154	154	631	631	501-1000	Groundwater Atlas	USGS HA-646 (Robson & Romero, 1981)
Groundwater	Fox Hills	641	641	803	803	501-1000	Groundwater Atlas	USGS HA-646 (Robson & Romero, 1981)
Confining Layer	Pierre Shale	803	803	1049	1049			
Groundwater	Upper Pierre Aq	1049	1049	1995	1985	1001-10000	Electric Log Calculation	Coslett B Unit 1X (05-123-12630)
Confining Layer	Pierre Shale	1995	1985	4652	4363			
Hydrocarbon	Larimer	4652	4363	512	4771			Non-productive horizon.
Hydrocarbon	Sussex	5112	4771	5761	5346			
Hydrocarbon	Shannon	5761	5346	5979	5539			
Confining Layer	Pierre Shale	5979	5539	8355	7613			
Confining Layer	Sharon Springs	8355	7613	8363	7618			
Hydrocarbon	Niobrara	8363	7618	8741	7790			

OPERATOR COMMENTS AND SUBMITTAL

Comments	<p>Distance from completed zone of this wellbore to nearest completed zone of an offset well within the same unit permitted or completed in the same formation was measured to the proposed Cosslett East 1B-22H-H168 operated by Crestone Peak Resources Operating LLC in 2D.</p> <p>Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells was measured to the abandoned Cosslett B Unit 1 (05-123-12595) operated by Vessels Oil & Gas Company. This was determined by the Anticollision Report.</p>		
<p>This application is in a Comprehensive Area Plan <u>No</u> CAP #: _____</p>			
Oil and Gas Development Plan Name <u>Cosslett East 22H-H168</u>		OGDP ID#: <u>482207</u>	
Location ID: <u>323151</u>			
<p>I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.</p>			
Signed: _____		Print Name: <u>Andrea Gross</u>	
Title: <u>Permit Agent</u>		Date: <u>11/10/2022</u>	Email: <u>agross@upstreampm.com</u>
<p>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).</p>			
<p>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.</p>			
COGCC Approved: <u></u>		Director of COGCC Date: <u>1/3/2023</u>	
<div style="border: 2px solid black; padding: 10px; text-align: center;"> API NUMBER 05 123 51949 00 </div>		Expiration Date: <u>10/25/2025</u>	

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
Interim Reclamation	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
Construction	If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016).
Drilling/Completion Operations	<p>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:</p> <p>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation.</p> <p>2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation.</p> <p>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document (option 4). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation will be completed, during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. Operator will equip the well with at least a 5,000 psi wellhead and monitor casing (surface and production) pressures during the entire stimulation treatment. Surface and production casing pressures of this offset well list will be actively monitored during the entire stimulation treatment of this pad. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and COGCC Engineering notified.</p> <p>014-20685 BURY CRANDELL #42-23 014-20688 HELEN #0-4-23 014-20707 CRANDELL #0-8-26 014-20708 HELEN #4-6-23 014-20712 BURY CRANDELL #6-0-23 123-47671 Cosslett #1C-22H-B168 123-47677 Cosslett #1D-22H-B168 123-47678 Cosslett #1E-22H-B168 123-47679 Cosslett #1A-22H-B168</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>014-12156 CRANDELL E UNIT #2 014-12170 HELEN E UNIT #1 014-13049 SHANNON ROBERTS #26-5 014-20649 HELEN #33-23 014-20636 ROBERTS #2</p>
Drilling/Completion Operations	<p>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.</p> <p>2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara and from 500' below Shannon to 500' above Sussex. Verify coverage with a cement bond log.</p>
6 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)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403214585	FORM 2 SUBMITTED
403214766	WELL LOCATION PLAT
403214770	DIRECTIONAL DATA
403222687	OffsetWellEvaluations Data
403222740	DEVIATED DRILLING PLAN
403222743	OTHER
403277313	OFFSET WELL EVALUATION

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	12/29/2022
Permit	Permitting Review Complete.	12/23/2022
Engineer	Emailed operator regarding potential flow and confining formation table. Updated form as per phone call.	12/02/2022
OGLA	The Commission approved OGDG #482207 on October 26, 2022 for the Oil and Gas Location related to this Form 2. OGLA task passed.	11/10/2022

Total: 4 comment(s)