

FORM

2

Rev  
08/16

## 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:

401120136

## APPLICATION FOR PERMIT TO:

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

Date Received:

01/04/2018

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_Refilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Cosslett

Well Number: 1E-22H-B168

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: Toby Sachen

Phone: (720)410-8536

Fax: ( )

Email: toby.sachen.contractor@crestonepr.com

## RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160104

## WELL LOCATION INFORMATION

QtrQtr: NWNE Sec: 22 Twp: 1N Rng: 68W Meridian: 6

Latitude: 40.041391

Longitude: -104.987940

Footage at Surface: 925 Feet FNL/FSL FNL 2210 Feet FEL/FWL FEL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 5172

County: WELD

GPS Data:

Date of Measurement: 03/24/2015 PDOP Reading: 1.7 Instrument Operator's Name: Jason Dahlman

If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.
 Footage at Top of Prod Zone: FNL/FSL FNL/FWL Bottom Hole: FNL/FSL FEL/FWL  
 480 FNL 1700 FEL 460 FSL 1700 FEL  
 Sec: 22 Twp: 1N Rng: 68W Sec: 27 Twp: 1N Rng: 68W

## LOCATION SURFACE &amp; MINERALS &amp; RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ IndianThe Surface Owner is: ☐ is the mineral owner beneath the location.  
(check all that apply) ☐ is committed to an Oil and Gas Lease.☐ has signed the Oil and Gas Lease.☐ is the applicant.The Mineral Owner beneath this Oil and Gas Location is: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: Surface Surety ID:

## LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

T1N-R68W-Sec. 22 (N2NE, SE)

Total Acres in Described Lease: 240 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease #

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1323 Feet  
Building Unit: 2055 Feet  
High Occupancy Building Unit: 4687 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 908 Feet  
Above Ground Utility: 885 Feet  
Railroad: 5280 Feet  
Property Line: 397 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

## DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: ☐ Buffer Zone  
☐ Exception Zone  
☐ Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: \_\_\_\_\_

## SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 267 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

DSU: T1N, R68W: E2 SEC 22; E2 SEC 27; ALL SEC 23; ALL SEC 26

## 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	S22&27:E2;S23&26:ALL

## DRILLING PROGRAM

Proposed Total Measured Depth: 17420 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: 710 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 Operations Plan)

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

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: \_\_\_\_\_ Drilling Fluids Disposal Methods: \_\_\_\_\_

Cuttings Disposal: \_\_\_\_\_ Cuttings Disposal Method: \_\_\_\_\_

Other Disposal Description:

Beneficial reuse or land application plan submitted? \_\_\_\_\_

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

## CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	17+1/2	13+3/8	54.5	0	500	538	500	0
SURF	12+1/4	9+5/8	40	0	2472	627	2472	0
1ST	8+1/2	5+1/2	20	0	17420	2518	17420	

☐ Conductor Casing is NOT planned

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

## GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☒ Rule 318A.a. Exception Location (GWA Windows).
- ☒ Rule 318A.c. Exception Location (GWA Twinning).

## RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

## OTHER LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_

☐ Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

## OPERATOR COMMENTS AND SUBMITTAL

Comments    Nearest horizontal well on the pad being permitted in the same formation as this proposed wellbore is Cosslett 1D-22H-B168.

Nearest well to the proposed wellbore belonging to another operator is Lovely 34-15, 123-22711, operated by KMG.

Interwell distances were determined using our in-house 3D anti-collision reports.

Crestone Peak Resources respectfully requests an exception to the Open Hole Logging requirement. See attached letter.

Additional conductor: 30" hole; 20" casing; 52.78 lb/ft; 0' casing top; 120' setting depth; 149 sacks cement; 120' cement bottom; 0' cement top; VISU (form will not take second conductor string)

This application is in a Comprehensive Drilling Plan    No    CDP #: \_\_\_\_\_

Location ID:    332117

Is this application being submitted with an Oil and Gas Location Assessment application?    Yes

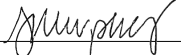
I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Toby Sachen

Title: Contractor    Date: 1/4/2018    Email: toby.sachen.contractor@cresto

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 and applicable orders and is hereby approved.

COGCC Approved:  \_\_\_\_\_ Director of COGCC    Date: 8/24/2018

Expiration Date: 08/23/2020

### API NUMBER

05 123 47678 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.

<u>COA Type</u>	<u>Description</u>
	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) 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>05-123-12630, COSSLETT B UNIT 1X 05-123-13606, COSSLETT B UNIT 2 05-123-25949, COSSLETT 33-22 05-014-12308, HELEN E UNIT 2 05-014-12021, CRANDELL E UNIT 1 05-014-12309, ALAUX F UNIT 1 05-014-13923, BAKER C UNIT 1</p>
	<p>Bradenhead tests shall be performed according to the following schedule and the Form 17 submitted within 10 days of each test:</p> <ol style="list-style-type: none"><li>1) Within 60 days of rig release and prior to stimulation and</li><li>2) If a delayed completion, 6 months after rig release and prior to stimulation.</li><li>3) Within 30 days after first production, as reported on Form 5A.</li></ol>
	<ol style="list-style-type: none"><li>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad.</li><li>2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara and from 200' below Sussex to 200' above Sussex. Verify coverage with cement bond log.</li><li>3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.</li><li>4) One of the first wells drilled on this pad will have a cement bond log run on the surface casing.</li></ol>

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed gyro survey will be submitted to COGCC with the Form 5.
2	Drilling/Completion Operations	Crestone Peak Resources will comply with the "COGCC Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area", dated May 29, 2012.
3	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with Cased-hole Pulsed Neutron Log with Gamma Ray Log from 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 in that well and have those logs attached. The Form 5 for each well shall clearly state "No openhole logs were run" and shall reference the Rule 317.p Exception granted for the well."

Total: 3 comment(s)

## Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.  
[http://cogcc.state.co.us/documents/reg/Policies/Wildlife\\_Notice.pdf](http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf)

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

## Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
1696925	EXCEPTION LOC REQUEST
2366302	SURFACE CASING CHECK
401120136	FORM 2 SUBMITTED
401472574	EXCEPTION LOC WAIVERS
401472575	EXCEPTION LOC WAIVERS
401472587	SURFACE AGRMT/SURETY
401494040	OffsetWellEvaluations Data
401494044	OPEN HOLE LOGGING EXCEPTION
401495047	DEVIATED DRILLING PLAN
401495048	DIRECTIONAL DATA
401500317	WELL LOCATION PLAT
401744240	OFFSET WELL EVALUATION

Total Attach: 12 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	With operators concurrence removed all non-downhole BMPs.	08/24/2018
Permit	With operators concurrence added the spacing order. Final Review Completed.	08/15/2018
Permit	Operator requested Exception to Open Hole Logging Rule 317.p. See attached. With operator's concurrence corrected the to Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation and updated the operator's comments. Permitting Review Complete. ON HOLD: w/o spacing order	03/27/2018
Permit	Passed Completeness.	01/10/2018

Total: 4 comment(s)