

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____ ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Refiling <input type="checkbox"/> Sidetrack <input type="checkbox"/>
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Date Received:
07/12/2018

Well Name: PUCKETT Well Number: GM 34-8
 Name of Operator: TEP ROCKY MOUNTAIN LLC COGCC Operator Number: 96850
 Address: PO BOX 370
 City: PARACHUTE State: CO Zip: 81635
 Contact Name: Vicki Schoeber Phone: (970)263-2721 Fax: ()
 Email: vschoeber@terraep.com

RECLAMATION FINANCIAL ASSURANCE
 Plugging and Abandonment Bond Surety ID: 20160057

WELL LOCATION INFORMATION
 QtrQtr: NESW Sec: 8 Twp: 7S Rng: 96W Meridian: 6
 Latitude: 39.450682 Longitude: -108.132703
 Footage at Surface: 2228 Feet FNL/FSL FSL 2228 Feet FEL/FWL FWL
 Field Name: GRAND VALLEY Field Number: 31290
 Ground Elevation: 6281 County: GARFIELD
 GPS Data:
 Date of Measurement: 02/28/2018 PDOP Reading: 3.4 Instrument Operator's Name: BART HUNTING
 If well is Directional Horizontal (highly deviated) **submit deviated drilling plan.**
 Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL
 1095 FSL 2386 FEL 1095 FSL 2386 FEL
 Sec: 8 Twp: 7S Rng: 96W Sec: 8 Twp: 7S Rng: 96W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT
 Surface Ownership: Fee State Federal Indian
 The 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: No
 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.)

T6S-R96W
 SEC 30: NW4NE4
 T7S-R96W
 SEC 8: SW4SE4
 SEC 19: NW4SE4
 SEC 22: LOT 9

Total Acres in Described Lease: 160 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # COC36219

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 240 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet
 Building Unit: 5280 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 5280 Feet
 Above Ground Utility: 5280 Feet
 Railroad: 5280 Feet
 Property Line: 371 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: 292 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 252 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

CA COC049043, E2 of Section 8, Top of MSVD to base of MSVD

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
WILLIAMS FORK	WMFK	510-9	320	Sec 8 E2

DRILLING PROGRAM

Proposed Total Measured Depth: 6822 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: 1320 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 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? No

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 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

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	26	18	47.4	0	80	134	80	0
SURF	13+1/2	9+5/8	32.3	0	1000	240	1000	0
1ST	8+3/4	4+1/2	11.6	0	6822	560	6822	3571

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 The Puckett 21A-17 well was used for the distance from proposed wellbore to nearest existing/permitted wellbore belonging to another operator. This distance was measured in plan view.

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

Location ID: 323823

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: Vicki Schoeber

Title: Regulatory Specialist Date: 7/12/2018 Email: vschoeber@terraep.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 and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 9/18/2018

Expiration Date: 09/17/2020

API NUMBER
05 045 24103 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.

COA Type

Description

	<p>1)Operator shall comply with the most current revision of the Northwest Colorado Notification Policy.</p> <p>2)Operator shall comply with the most current revision of the Garfield County Rulison Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1).</p> <p>3)Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to a minimum of 200' above all Mesaverde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with a cement bond log.</p>
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Best Management Practices

No BMP/COA Type

Description

1	Drilling/Completion Operations	One of the first wells drilled on this pad will be logged with an open-hole resistivity log with gamma-ray, from TD into the surface casing. All wells on the pad will have a cement bond log (CBL) with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. 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 "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.
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Total: 1 comment(s)

Applicable Policies and Notices to Operators

Piceance Rulison Field - Notice to Operators.

<http://cogcc.state.co.us/documents/reg/Policies/NoticeToOp-20060623-2.pdf>

NW Colorado Notification Policy.

http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf

Notice Concerning Operating Requirements for Wildlife Protection.

http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

Att Doc Num

Name

401694398	FORM 2 SUBMITTED
401697580	WELL LOCATION PLAT
401699295	DIRECTIONAL DATA
401699296	DEVIATED DRILLING PLAN
401700239	SURFACE AGRMT/SURETY
401700670	FED. DRILLING PERMIT

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Changed drilling waste management from "Other" to "Commercial Disposal" with operator concurrence. Removed comment under "Other Disposal Description" that references the MV 60-8D, GM 41-8 and Hayes Gulch Cuttings Trench, as directed by operator. Although there are producing wells on the pad, operator prefers to run logs on one of the new proposed wells as stated in BMP. Added distance to unit boundary, unit acreages, and unit configuration with operator concurrence. Final review complete.	08/29/2018
Engineer	Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 36 feet. Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. The wellbore path in plan view crosses planned and/or existing horizontal wellbores that are in the deeper Niobrara formation.	08/23/2018
Permit	Added unit acreage and configuration with operator approval. Checking on distance to nearest well by another operator.	08/07/2018
Permit	Passed Completeness.	07/16/2018

Total: 4 comment(s)