

State of Colorado Oil and Gas Conservation Commission

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Date Received:

INJECTION WELL PERMIT APPLICATION

Submit a completed Form 33 with or after approval obtained on Form 31 (Underground Injection Formation Permit Application) or you must have a previously approved injection Well Permit.

1. Operator may not commence injection into this well until this form is approved.
2. Each individual injection well must be approved by this form.

Per Rule 325, this form shall be submitted with all required attachments.

A Form 33 – Intent shall be submitted and approved prior to completing an injection zone.

A Form 33 – Subsequent shall be submitted following completion of the well and must be approved prior to injection.

NOTE: Injection for Enhanced Recovery requires the field to be unitized according to the 400 Series Rules. Injection for Disposal into a producing field requires unitization of the formation in the field.

Form 33 Type ☒ Intent ☐ Subsequent

OPERATOR INFORMATION

OGCC Operator Number: 96850	Contact Name and Telephone:
Name of Operator: TEP ROCKY MOUNTAIN LLC	Name: Jeff Kirtland
Address: PO BOX 370	Phone: (970) 263-2736 Fax: ()
City: PARACHUTE State: CO Zip: 81635	Email: jkirtland@terraep.com

WELL INFORMATION

Well Name and Number: Federal RG 912-23-299D API No: 05- - -00
 Field Name and Number: SAGE BRUSH HILLS II 76140 County: RIO BLANCO
 QtrQtr: NWSW Sec: 23 Twp: 2S Range: 99W Meridian: 6

UIC FACILITY INFORMATION

UIC Facility ID: (as assigned on an approved Form 31)

Facility Name: Facility Number:

WELLBORE INFORMATION

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top	Status
CONDUCTOR	26	18	47.44	0	80	134	80	0	CALC
SURF	13+1/2	9+5/8	36	0	3146	1098	3146	0	CALC
1ST	8+3/4	5+1/2	17	0	6449	218	6449	5013	CALC

Plug Back Total Depth: 6449 Tubing Depth: 4998 Packer Depth: 5000

List below all Plugs, Bridge Plugs, Stage Cementing or Squeeze Work performed on this wellbore:

This is a new drill injection well, all proposed casing and cement listed above is calculated.

Describe below any changes to the wellbore which will be made upon conversion (includes but not limited to changes of tubing and packer setting depths, any additional squeeze work for aquifer protection or casing leaks, setting of bridge plugs to isolate non-injection formations).

This well is a new drill, not a conversion. Terra proposes to complete six stages between 5,213-6,332 feet in the the Ohio Creek and upper stages of the Williams Fork Formations of the Mesaverde Group. Tubing is proposed to be set at 4,998' and packer will be set at 5,000'. The proposed injection depths are subject to post drilling log analysis. See attached WBD.

WELLBORE COMPLETIONS

Formation Name	Gross Completed Interval from Top	Gross Completed Interval from Bottom	Completion Type
OHIO CREEK	5213	5217	Perforated
WILLIAMS FORK	5218	6332	Perforated

Operator Comments:

The TEP Rocky Mountain LLC (Terra) injection program is required for the disposal of future produced and flowback waters which are anticipated to be in excess of the storage capacity available within our Ryan Gulch field. To minimize truck traffic, shutting in wells, and efficiently utilizing existing infrastructure by injecting into appropriate areas, Terra is requesting to drill a new injection well and complete the upper stages of the Ohio Creek and Williams Fork Formations of the Mesaverde Group. The Federal RG 912-23-299D well will be located on the existing Federal 299-23-3 pad (Loc ID 316441) on Federal Bureau of Land Management surface located in NW¼SW¼, Section 23, T2S-R99W. 6th P.M., Rio Blanco County, Colorado.

Terra is specifically requesting to drill and complete a new injection well targeting injection in the Ohio Creek and Williams Fork Formations. The location of the new well is within Terra's existing injection field and close to injection infrastructure.

Terra is planning to complete the Federal RG 912-23-299D on pad following drilling operations. Terra proposes to complete six stages between 5,213-6,332 feet. The proposed injection depths are subject to post drilling log analysis. Step Rate injection testing will occur between perforation stages as outline in the attached proposed procedure.

Water for completions will be supplied to the location through the existing 3-inch water pipeline, which is pumped from the Mautz Ranch Pit (Pit 22-19-298 – Facility ID 428428) utilizing existing underground pipelines. No new disturbance is required on either the Federal 299-23-3 pad or the Mautz Ranch Pit.

All produced water will continue to be filtered utilizing existing injection equipment at the Mautz Ranch Pit prior to injection in the Federal RG 912-23-299D through existing pipelines. TEP estimates the frac gradient to be approximately 0.65 psi/ft. Injection rates at the well head are anticipated to range from a minimum of 500 bbls/day up to 10,000 bbl/day at 1,200 to 1,800 psi.

The proposed injection zone in the Ohio Creek and Williams Fork Formations is a non-tributary formation. The TDS of the formation is estimated to be between 13,000-19,000 mg/L TDS and an Aquifer Exemption Request is not required. Please refer to the comparative formation water analysis from the Federal 299-23-1 well, which was calculated greater than 18,000 mg/L TDS and is located within ½ mile of the proposed RG 912-23-299D well. This request does not include unit operations or enhanced recovery.

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

Print Name: Jeff Kirtland

Signed: _____ Title: Regulatory Lead Date: _____

OGCC Approved: _____ Title: _____ Date: 8/24/2020 12:04:25 PM

MAX. SURFACE INJECTION PRESSURE: _____ **If Disposal Well, MAX. INJECTION VOL. LIMIT:** _____

CONDITIONS OF APPROVAL, IF ANY:**COA Type****Description**

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Attachment Check List**Att Doc Num****Name**

402509280	WELLBORE DIAGRAM-PROPOSED
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Total Attach: 1 Files

General Comments**User Group****Comment****Comment Date**

		Stamp Upon Approval
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Total: 0 comment(s)