

State of Colorado
Energy & Carbon Management Commission

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UNDERGROUND INJECTION FORMATION PERMIT APPLICATION

Per Rule 803, this form shall be submitted with all required attachments.

A Form 31 – Intent shall be submitted and approved prior to completing an injection zone.

A Form 31 – Subsequent shall be submitted following collection of water samples and injectivity test (if performed) and must be approved prior to injection in any new injection facility.

NOTE: Per Rule 802.a, an aquifer exemption is required for any injection formation with water quality less than 10,000 mg/L total dissolved solids (TDS). Contact the Commission for further requirements if the TDS as determined by water analysis for the injection zone is less than 10,000 mg/L.

Form 31 Type

☒ Intent☐ Subsequent

UIC Facility ID 0

UIC Facility ID Required for Subsequent
Form 31**UIC FACILITY INFORMATION**

Facility Name and Number: Longknife SWD

3

County: WASHINGTON

Facility Location: NENW / 6 / 3S / 50W / 6

Field Name and Number:

LONGKNIFE

51460

Facility Type: ☐ Enhanced Recovery☒ Disposal☐ Simultaneous Disposal

Single or Multiple Well Facility?

☒ Single☐ Multiple

Proposed Injection Program Summary (Required by Rule 803.g.(5). Attach Stratigraphic Column separately.):

The fluids injected into the Longknife #3 SWD injection well will come from the proposed Longknife #1 and Longknife #2 oil wells. The produced fluids from both proposed wells will flow through in-ground flowlines to the production facility where three-phase separation will occur. Oil will go to the above ground crude oil storage tanks. There is no gas expected in this reservoir. The produced water will exit the separation vessel and be transferred by pipe to a series of skim tanks where it will then transfer through an in-ground flowline to the Longknife SWD #3 injection well to be injected. An estimated 750-1000 bbls/day of produced water is expected to be injected into the Longknife #3 SWD injection well. It is expected that the water will flow into the Lyons under hydrostatic conditions. If pressure is required, operator proposes to use the generally accepted fracture gradient provided by the ECMC of 0.6 psi/ft. Using 0.6 psi/ft and a depth of 5180' the fracture pressure of the Lyons is estimated to be 3,100 psi. The hydrostatic pressure of 4800' of water is 2244 psi. This indicates a maximum allowable surface injection pressure of 856 psi.

OPERATOR INFORMATION

ECMC Operator Number: 81490

Name of Operator: ST CROIX OPERATING INC

Address: P O BOX 13799

City: DENVER

State: CO

Zip: 80201

Contact Name and Telephone:

Name: Paul Melnychenko

Phone: (303) 4869298

Fax: ()

Email: stcroixexp@aol.com

INJECTED FLUID TYPE

All injected fluids must be Exempt E&P waste per RCRA Subpart C.

(Check all that apply.)

☒ Produced Water☐ Natural Gas☐ CO2☒ Drilling Fluids☐ Exempt Gas Plant Waste☒ Used Workover Fluids☐ Flowback Fluids☐ Other Fluids (describe):

Commercial Disposal Facility

☐ Yes☒ No

Commercial UIC Bond Surety ID:

Commercial Facility Description: Describe the physical region of the facility, the details of the operations, and the type of fluids to be injected.

PROPOSED INJECTION FORMATIONS

FORMATION (Name): LYONS Porosity: 23 %
Formation TDS: 4100 mg/L Frac Gradient: 0.6 psi/ft Permeability: 88 mD
Proposed Stimulation Program: ☐ Acid ☐ Frac Treatment ☐ None
New Aquifer Exemption Needed? ☒ Yes ☐ No

ANTICIPATED FACILITY OPERATIONS CONDITIONS

Under normal operating conditions, estimated TOTAL fluid injection rates and pressures for this facility:

FOR WATER: Daily Injection Rate Range From 750 to 1000 bbls/day
Surface Injection Pressure Range From 0 to 800 psi
FOR GAS: Daily Injection Rate Range From to mcf/day
Surface Injection Pressue Range From to psi

Estimated Initial Injection Date: 6/1/2025

AREA OF REVIEW OIL and GAS WELL EVALUATION SUMMARY

Review all existing wells within 1/2 mile for injection formation isolation.

Area Review Date: 10/18/2024

Total number of Oil & Gas Wells within Area of Review: 14

ABANDONED WELLS (All wells that have been plugged: PA and DA status))

Total within Area of Review	9
Number To Be Re-Plugged	0

ACTIVE WELLS (All wells that have not been plugged: AC, DG, DM, IJ, PR, SU, SI, TA, WO, XX, UN status)

Total within Area of Review	5
Number Requiring Casing Repair	0
Number To Be Plugged	0

Operator's Area of Review Contact Email: ryan@PEOperating.com

☐ No Wells within 2,640'

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

Print Name: Jessica Donahue Signed: _____

Title: Compliance Specialist Date: _____

ECMC Approved: _____ Date: _____

Form 31 - Intent Expiration Date: _____

Per Rule 325.o, a 90 day extension of the Expiration Date may be requested via a Sundry Notice, Form 4 submitted prior to Form 31- Intent expiration

Order Number: _____ UIC FACILITY ID: 0

CONDITIONS OF APPROVAL, IF ANY LIST

COA Type	Description
0 COA	

ATTACHMENT LIST

Att Doc Num	Name
404008309	OFFSET WELL EVALUATION
404008325	AQUIFER EXEMPTION EVALUATION
404008335	WELLBORE DIAGRAM-PROPOSED
404008337	LIST OF WATER WELLS 1-MILE
404008341	LIST OF SURFACE OWNERS ½-MILE
404008343	REMEDIAL CORR ACTION PLAN/STATEMENT - WELLS ¼-MILE
404008345	PROCESS FLOW DIAGRAM
404008348	SURFACE FACILITY DIAGRAM
404008352	OTHER
404008360	MAP OF O&G WELLS IN AREA OF REVIEW
404008366	LIST OF MINERAL OWNERS ½-MILE
404008374	SURFACE USE AGREEMENT(S)-SALT WATER DISPOSAL
404008375	UNIT AREA PLAT
404008379	LIST OF O&G WELLS IN AREA OF REVIEW
404008385	MAP OF WATER WELLS 1-MILE
404008387	OTHER
404008417	STIMULATION PLAN/STATEMENT
404011247	NOTICE OF APPLICATION
404011248	MAP OF SURFACE OWNERS ½-MILE
404011249	OTHER
404011250	NOTICE OF APPLICATION
404011251	MAP OF MINERAL OWNERS ½-MILE

Total Attach: 22 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)