

State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109



FOR OGCC USE ONLY

Document Number:

401014825

Date Received:

03/25/2016

UNDERGROUND INJECTION FORMATION PERMIT APPLICATION

Per Rule 325, 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 324B, 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 [X] Intent [ ] Subsequent UIC Facility ID 159993 UIC Facility ID Required for Subsequent Form 31

UIC FACILITY INFORMATION

Facility Name and Number: Decker 2 County: WASHINGTON
Facility Location: SE/NE / 18 / 4S / 53W / 6 Field Name and Number: BISON 6800
Facility Type: [ ] Enhanced Recovery [X] Disposal [ ] Simultaneous Disposal
Single or Multiple Well Facility? [X] Single [ ] Multiple

Proposed Injection Program (Required):

Diamond is the operator of the Decker #1 and Decker #3 wells located in the NE/4 Section 18-T4S-R53W. The two wells produce oil and water from the Cretaceous J Sandstone. Diamond is also the operator of the Decker #2 well (aka Decker 22-18). The Decker #2 was once a producing oil well from the J Sandstone but its' current status is temporarily abandoned. Diamond wants to convert the Decker #2 into a UIC well for disposal of produced water from the Decker #1 and #3 into the J Sandstone. Diamond will collect the produced water from a tank at the Decker production facility and transport the water via underground pipeline to the Decker #2 well. Diamond projects the Decker #2 will initially accept the water via gravity feed.

OPERATOR INFORMATION

OGCC Operator Number: 24320 Contact Name and Telephone:
Name of Operator: DIAMOND OPERATING, INC. Name: Dave Peterson
Address: 6666 GUNPARK DR STE #200 Phone: (303) 494-4420 Fax: (303) 494-3931
City: BOULDER State: CO Zip: 80301 Email: davep@flatironenergy.com

INJECTED FLUID TYPE

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

(Check all that apply.)

- [X] Produced Water [ ] Natural Gas [ ] CO2 [ ] Drilling Fluids
[ ] Exempt Gas Plant Waste [ ] Used Workover Fluids [ ] Flowback Fluids

[ ] Other Fluids (describe):

[Empty text box for describing other fluids]

Commercial Disposal Facility [ ] Yes [X] 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): J SAND Porosity: 24 %  
Formation TDS: 990 mg/L Frac Gradient: 0.7 psi/ft Permeability: 137 mD  
Proposed Stimulation Program:  Acid  Frac Treatment  None

**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 0 to 850 bbls/day  
Surface Injection Pressure Range From 0 to 1240 psi  
FOR GAS: Daily Injection Rate Range From \_\_\_\_\_ to \_\_\_\_\_ mcf/day  
Surface Injection Pressure Range From \_\_\_\_\_ to \_\_\_\_\_ psi

Estimated Initial Injection Date: 6/1/2016

**AREA OF REVIEW OIL and GAS WELL EVALUATION SUMMARY**

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

Area Review Date: 3/28/2016

Total number of Oil & Gas Wells within Area of Review: 13

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

Total within Area of Review	10
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	3
Number Requiring Casing Repair	0
Number To Be Plugged	0

Operator's Area of Review Contact Email: Dave Peterson

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: Dave Peterson Signed: \_\_\_\_\_

Title: President Date: 3/25/2016 12:40:05 PM

COGCC Approved:  Date: 07/22/2016

Form 31 - Intent Expiration Date: 01/22/2017

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: 159993

CONDITIONS OF APPROVAL, IF ANY:

<b>COA Type</b>	<b>Description</b>
	Form 26 required for approval of SUBSEQUENT Forms 31 and 33.
	MIT with tubing set in final configuration for injection required for approval of SUBSEQUENT Forms 31 and 33.
	Injection is not authorized until approval of SUBSEQUENT Forms 31 and 33.

### **Attachment Check List**

<b>Att Doc Num</b>	<b>Name</b>
401014825	FORM 31-INTENT-SUBMITTED
401015425	FILING DOCUMENTS-46 PAGES
401015426	CERTIFIED MAIL RECEIPT(S)
401080262	PROOF OF PUBLICATION-GENERAL
401080299	WELLBORE DIAGRAM-PROPOSED
401082001	MAP OF SURFACE OWNERS ¼-MILE
401082002	MAP OF MINERAL OWNERS ¼-MILE
401082004	LIST OF SURFACE OWNERS ¼-MILE
401082006	SURFACE USE AGREEMENT FOR SALT WATER DISPOSAL
401082008	SURFACE FACILITY DIAGRAM
401082012	ANALYSIS OF INJECTION ZONE WATER
401082054	LIST OF WATER WELLS 1/2-MILE
401082057	LIST OF O&G WELLS IN AREA OF REVIEW
401082063	NOTICE TO SURFACE & MINERAL OWNERS
401082082	MAP OF O&G WELLS IN AREA OF REVIEW
401082091	AQUIFER EXEMPTION-COGCC
401082096	PUBLIC NOTICE-AQUIFER EXEMPTION
401082147	TABLE OF CONTENTS-FILING DOCUMENTS
401082475	AREA OF REVIEW-COGCC EVALUATION

Total Attach: 19 Files

### **General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
UIC	Maximum Surface Injection Pressure of 1240 psi + (0.433 psi/ft water head X top perforation depth of 4644 ft) = Maximum Bottom hole pressure of 3251 psi. Bottom hole pressure of 3251 psi/top perforation depth of 4644 ft = 0.7 psi/ft fracture gradient.	7/22/2016 7:28:56 AM
UIC	Updated Area of Review table with additional information available at COGCC. See COGCC generated table in attachments.	7/21/2016 4:10:25 PM
UIC	No wells producing from the J-Sand within 1/2-mile radius that are not operated by Diamond Operating Inc. Only Mineral Owners out to 1/4-mile had to be noticed.	7/21/2016 1:19:57 PM
UIC	Use of Beren Corporation: Scott #1-WD well (API: 121-05190) for Maximum Surface Injection Pressure of 1240 psi as proposed in Submittal Comment is acceptable. Scott well is located in NENW Section 7-T4S-R53W approximately 6764 ft/1.28 miles due north. Scott well operates on a vacuum.	7/21/2016 12:47:45 PM
UIC	Analysis of Injection Zone Water attachment also serves as Analysis of Injected Water document.	7/21/2016 12:45:46 PM

Total: 5 comment(s)