

State of Colorado Oil and Gas Conservation Commission

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FOR OGCC USE ONLY

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400929380

Date Received:

01/06/2016

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 159985 UIC Facility ID Required for Subsequent Form 31

UIC FACILITY INFORMATION

Facility Name and Number: NGL C3B County: WELD
Facility Location: NENE / 29 / 4N / 65W / 6 Field Name and Number: HAMBERT 33530
Facility Type: [ ] Enhanced Recovery [X] Disposal [ ] Simultaneous Disposal
Single or Multiple Well Facility? [X] Single [ ] Multiple

Proposed Injection Program (Required):

The NGL C3B well will take produced water from nearby oil & gas wells in Weld County. Water will be trucked to the Surface Facility where residual hydrocarbons and sediments will be removed before injection. Under normal operating conditions, estimated fluid injection rates for produced water will be a minimum of 10,000 bbls per day @ 2200 psi to a maximum of 24,000 bbls per day @ 2500 psi. A Step Rate Test will be used to determine maximum injection pressure. The above volumes are estimated for the single new well to be included in the Facility in the NWNW of Section 32, adjacent section to the south, which will service up to 4 separate UIC wells.

OPERATOR INFORMATION

OGCC Operator Number: 10373 Contact Name and Telephone:
Name of Operator: NGL WATER SOLUTIONS DJ LLC Name: Paul Gottlob
Address: 3773 CHERRY CRK NORTH DR #1000 Phone: (720) 420-5747 Fax: ( )
City: DENVER State: CO Zip: 80209 Email: paul.gottlob@iptenergyservices.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 [X] Drilling Fluids
[X] Exempt Gas Plant Waste [X] Used Workover Fluids [X] Flowback Fluids

[ ] Other Fluids (describe):

Commercial Disposal Facility [X] Yes [ ] No Commercial UIC Bond Surety ID: 20150111

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

1. Physical region of Operation is Weld County and surrounding areas.
2. Water will be trucked to the Surface Facility where residual hydrocarbons and sediments will be removed before injection. Under normal operating conditions, estimated fluid injection rates for produced water will be a minimum of 10,000 bbls per day @ 2200 psi to a maximum of 24,000 bbls per day @ 2500 psi.
3. Injected Fluid Types: Produced Water, Drilling Fluids, Flowback Fluids, Exempt Gas Plant Waste & Used Workover Fluids.
4. None other than listed above.

**PROPOSED INJECTION FORMATIONS**

FORMATION (Name): <u>ADMIRE</u>		Porosity: <u>3</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>AMAZON</u>		Porosity: <u>8</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>ATOKA</u>		Porosity: <u>2</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>COUNCIL GROVE</u>		Porosity: <u>14</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>DES MOINES</u>		Porosity: <u>4</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>FOUNTAIN</u>		Porosity: <u>4</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>LOWER SATANKA</u>		Porosity: <u>1</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>LYONS</u>		Porosity: <u>10</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>MORROW</u>		Porosity: <u>2</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		
FORMATION (Name): <u>MISSOURI</u>		Porosity: <u>4</u> %
Formation TDS: _____ mg/L	Frac Gradient: _____ psi/ft	Permeability: _____ mD
Proposed Stimulation Program: <input type="checkbox"/> Acid <input type="checkbox"/> Frac Treatment <input checked="" type="checkbox"/> None		

FORMATION (Name): VIRGIL Porosity: 16 %  
 Formation TDS: \_\_\_\_\_ mg/L Frac Gradient: \_\_\_\_\_ psi/ft Permeability: \_\_\_\_\_ mD  
 Proposed Stimulation Program:  Acid  Frac Treatment  None

FORMATION (Name): WOLFCAMP Porosity: 1 %  
 Formation TDS: \_\_\_\_\_ mg/L Frac Gradient: \_\_\_\_\_ psi/ft Permeability: \_\_\_\_\_ 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 10000 to 24000 bbls/day  
 Surface Injection Pressure Range From 2200 to 2500 psi  
 FOR GAS: Daily Injection Rate Range From \_\_\_\_\_ to \_\_\_\_\_ mcf/day  
 Surface Injection Pressure Range From \_\_\_\_\_ to \_\_\_\_\_ psi

Estimated Initial Injection Date: 4/1/2016

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

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

Area Review Date: 11/3/2015

Total number of Oil & Gas Wells within Area of Review: 24

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

Total within Area of Review	8
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	16
Number Requiring Casing Repair	0
Number To Be Plugged	0

Operator's Area of Review Contact Email: paul.gottlob@iptenergyservices.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: Paul Gottlob Signed: \_\_\_\_\_  
 Title: Regulatory & Engin. Tech. Date: 1/6/2016 3:21:08 PM

COGCC Approved:  Date: 04/27/2016

Form 31 - Intent Expiration Date: 10/27/2016

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: 159985

CONDITIONS OF APPROVAL, IF ANY:

<b>COA Type</b>	<b>Description</b>
	One year after the initial injection date Operator is required to file a Form 4-Sundry Notice with injected water analysis; minimum analyses are TDS, major cations, and major anions. Data must also be submitted to COGCC Database in Electronic Data Deliverable (EDD) format. After the initial 1-year analysis the analysis shall be repeated at 5-year intervals from the first analysis.
	If operator wishes to inject at a rate higher than 10,000 bbls/day or increase the Maximum Injection Volume permitted here they must contact COGCC and make an application via Form 4-Sundry Notice.
	<ol style="list-style-type: none"> <li>1. Injection is not authorized until approval of Subsequent Forms 31 and 33.</li> <li>2. Operator is required to contact COGCC to discuss Step Rate Test or Injectivity Test criteria for Maximum Surface Injection Pressure determination.</li> <li>3. Prior approval of Form 4 is required for step rate and injectivity tests.</li> <li>4. Prior approval of Form 4 is required for acid and fracturing jobs. (New 4/13/2016).</li> <li>5. Retrieve water sample(s) from injection zone(s) before stimulating formation. Samples must be analyzed for Total Dissolved Solids at a minimum.</li> <li>6. For ALL NEW DRILL UNDERGROUND INJECTION WELLS a suite of open-hole Resistivity/Gamma Ray and Density/Neutron logs IS REQUIRED from Surface Casing shoe to TD. A PDF, TIFF, or PDS visual image and a LAS or DILS file version of each log is required.</li> <li>7. For all new Underground Injection Control wells a Cement Bond Log (CBL) is required on the cased portions of the hole from the bottom of the casing to the top of the next shallower casing string for all casing strings other than the Surface Casing. Only a PDF, TIFF, or PDS visual image is required.</li> <li>8. Operator must provide all tops of formations encountered from surface to TD on the Form 5 when submitted.</li> </ol>
	Mineral owner notification letter missing. Operator contacted and will submit with Subsequent Form 31 when filed.

### **Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
400929380	FORM 31-INTENT-SUBMITTED
400929454	OFFSET WELL EVALUATION
400929474	OIL & GAS WELL PLAT
400929479	SURFACE FACILITY DIAGRAM
400929525	NOTICE TO SURFACE & MINERAL OWNERS
400929526	LIST OF SURFACE OWNERS ¼-MILE
400929527	MAP OF SURFACE OWNERS ¼-MILE
400929532	LIST OF MINERAL OWNERS ¼-MILE
400929533	MAP OF MINERAL OWNERS ¼-MILE
400929535	LIST OF WATER WELLS ¼-MILE
400929537	MAP OF WATER WELLS ¼-MILE
400929539	MAP OF O&G WELLS IN AREA OF REVIEW
400929551	REMEDIAL CORRECTION PLAN FOR WELLS ¼-MILE
400933196	OTHER
400939051	WELLBORE DIAGRAM-PROPOSED
400963413	CERTIFIED MAIL RECEIPT(S)
400965641	SURFACE USE AGREEMENT FOR SALT WATER DISPOSAL
401035840	SURFACE USE AGREEMENT FOR SALT WATER DISPOSAL

Total Attach: 18 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
UIC	Because operator is requesting a maximum daily injection rate greater than 10,000 bpd (barrels per day, request is for 24,000 bpd) on the UIC Form 31-Intent permit, there will be a COA on the Form 31-Subsequent for the operator to install and maintain a seismic monitoring station within a 1-mile radius of this well.	4/27/2016 12:55:50 PM
UIC	Newspaper publication date is actually date announcement sent to Greeley Tribune. Publication date will be updated in Subsequent Form 31.	4/27/2016 11:41:40 AM
Total: 2 comment(s)		