

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL	OIL <input type="checkbox"/>	GAS <input type="checkbox"/>	COALBED <input type="checkbox"/>	OTHER <u>UIC</u>	Refilling <input type="checkbox"/>
ZONE TYPE	SINGLE ZONE <input type="checkbox"/>	MULTIPLE ZONES <input checked="" type="checkbox"/>	COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input type="checkbox"/>	Date Received: 04/17/2018

Well Name: SOUTH WELD SWD Well Number: 1

Name of Operator: NGL WATER SOLUTIONS DJ LLC COGCC Operator Number: 10373

Address: 3773 CHERRY CRK NORTH DR #1000

City: DENVER State: CO Zip: 80209

Contact Name: PAUL GOTTLÖB Phone: (720)420-5747 Fax: ()

Email: paul.gottlob@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE
Plugging and Abandonment Bond Surety ID: 20110128

WELL LOCATION INFORMATION

QtrQtr: SWNE Sec: 30 Twp: 1N Rng: 66W Meridian: 6

Latitude: 40.025060 Longitude: -104.816540

Footage at Surface: 1615 Feet FNL/FSL FNL 1713 Feet FEL/FWL FEL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4952 County: WELD

GPS Data:
Date of Measurement: 06/13/2018 PDOP Reading: 2.3 Instrument Operator's Name: Casey Kohout

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 _____

Sec: _____ Twp: _____ Rng: _____ Sec: _____ Twp: _____ Rng: _____

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: applicant is owner

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.)

There is no lease as there are no minerals applicable to the wellbore.

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

Federal or State Lease # _____

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

CULTURAL DISTANCE INFORMATION

Distance to nearest:

- Building: 400 Feet
- Building Unit: 808 Feet
- High Occupancy Building Unit: 5280 Feet
- Designated Outside Activity Area: 5280 Feet
- Public Road: 318 Feet
- Above Ground Utility: 222 Feet
- Railroad: 2242 Feet
- Property Line: 239 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: 03/06/2018

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: 3985 Feet

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

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

SPACING & FORMATIONS COMMENTS

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
ADMIRE	ADMI			
AMAZON	AMZN			
COUNCIL GROVE	COUGR			
FOUNTAIN	FNTN			
LOWER SATANKA	LSTKA			
LYONS	LYNS			
MISSOURI	MSSR			
VIRGIL	VRGL			
WOLFCAMP	WFCMP			

DRILLING PROGRAM

Proposed Total Measured Depth: 11193 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: 1064 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 318A

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? _____

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	16	42	0	80	160	80	0
SURF	14+3/4	10+3/4	40.5	0	1164	388	1164	0
1ST	9+7/8	7+5/8	29.7	0	9202	192	9202	7871
1ST LINER	6+5/8	5+1/2	17	9150	11193			
			Stage Tool		7871	965	7871	0

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

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

Location ID: _____

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: PAUL GOTTLLOB

Title: Regulatory & Engin. Tech. Date: 4/17/2018 Email: paul.gottlob@iptenergyservices

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: 8/27/2018

Expiration Date: 08/26/2020

API NUMBER 05 123 47682 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.

<u>COA Type</u>	<u>Description</u>
	1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad. 2) Comply with Rule 317.j. and provide cement coverage from end of 7-5/8 inch casing to a minimum of 200' above Sussex. Verify coverage with cement bond log. 3) Bradenhead test shall be performed within 60 days of rig release and the Form 17 submitted within 10 days of the test.
	1. Injection is not authorized until approval of Subsequent Forms 31 and 33. 2. Retrieve water sample(s) from injection zone(s) before stimulating formation. Samples must be analyzed for Total Dissolved Solids at a minimum. 3. PRIOR TO PERFORMING OPERATIONS: Operator is required to contact COGCC to discuss acid and fracturing jobs. Approval of Form 4 may be required for acid and fracturing jobs. (As of 4/13/2016) 4. PRIOR TO PERFORMING OPERATIONS: Operator is required to contact COGCC to discuss Step Rate Test or Injectivity Test criteria for Maximum Surface Injection Pressure determination. Prior approval of Form 4 may be required for step rate and injectivity tests. 5. 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 DLIS file version of each log is required. 6. For all new and converted 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. 7. Operator must provide all tops of formations encountered from surface to TD on the Form 5 when submitted.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Open-hole Resistivity Log with Gamma Ray Log will be run from TD into the surface casing. A Cement Bond Log with Gamma-Ray will be run on production casing, or on intermediate casing if a production liner is run. The Form 5, Completion Report, will list all logs run and have those logs attached.
2	Drilling/Completion Operations	For all new and converted Underground Injection Control wells a Cement Bond Log (CBL) is a 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 visual image is required.
3	Drilling/Completion Operations	A Mud log is required containing at least the following information: Rate of Penetration Log, and the location of any drilling breaks or zones of lost circulation.

Total: 3 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1696958	WELL LOCATION PLAT
2473201	WELLBORE DIAGRAM

401574842	FORM 2 SUBMITTED
401575625	OffsetWellEvaluations Data
401745418	OFFSET WELL EVALUATION

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Status Active - Corrections made with Operator concurrence: - corrected surety bond ID#. Final Review Completed.	08/26/2018
Permit	Per operators changed: 1. WELL LOCATION INFO: Lat 40.02506, Long -104.81656, Footage at Surface: 1615' FNL, 1713' FEL, Date of Measurement 6/13/2018, PDOP 2.3, Instrument Operator's Name: Casey Kohout. 2. CULTURAL DISTANCES: Building: 400', BU: 808', High Occ. BU: 5280', Des. Outside Act. Area: 5280', Public Road: 318', Above Ground Utility: 222', Railroad: 2242', Property Line: 239'. 3. 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: 3985' (which is to the planned South Weld SWD 4 – the other well planned for this same pad, planned as a directional UIC well) 4. DRILLING PROGRAM: Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells: 1064'. Permitting Review complete.	06/18/2018
Permit	Permitting review complete.	06/05/2018
Permit	Status Active - corrections made with Operator concurrence: - corrected surety bond ID#. - operator confirmed applicant is surface owner; right to construct is correct as "applicant". - changed distance to nearest wellbore in same formation from 5280' to 3970', as measured to the South Weld SWD 4 well that is proposed at the same location. Application will be submitted in the near future. - revised open hole logging BMP to clarify logging program and conform with guidance. - deleted two surface-related reclamation BMPs.	06/05/2018
Permit	Added wellbore diagram attachment as provided by Operator.	06/04/2018
Permit	Status Pending - contacted Operator for corrections: - Verify Surety Bond ID#; number listed (20170018) is for a different individual commercial UIC well. COGIS Database listing for 20180052 has "South Weld SWD 1" named. - very right to construct (applicant is owner) - associated Form 2A has SUA attached for different surface owner. - verify distance to nearest wellbore in same formation; the associated 2A describes a second well to be drilled at this location that would be within 5280' - confirm formations for second well. - revise open hole logging BMP to use language provided in guidance document. - delete interim and final reclamation BMPs.	06/04/2018
Engineer	Emailed to request wellbore diagram.	06/04/2018
UIC	With permission of operator changed number of cement sacks for Conductor from 400 to 160.	05/23/2018
Permit	Passed completeness.	04/27/2018

Total: 9 comment(s)