

FORM
2
Rev
08/13

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
400703571

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received:
12/05/2014

TYPE OF WELL OIL GAS COALBED OTHER UIC
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Well Name: NGL Well Number: C5A
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 Gottlob Phone: (720)420-5747 Fax: ()
Email: paul.gottlob@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20110128

WELL LOCATION INFORMATION

QtrQtr: NESW Sec: 29 Twp: 2N Rng: 64W Meridian: 6
Latitude: 40.107720 Longitude: -104.575640

Footage at Surface: 1974 feet FNL/FSL FEL/FWL
FSL 2431 feet FWL

Field Name: WATTENBERG Field Number: 90750
Ground Elevation: 4937 County: WELD

GPS Data:
Date of Measurement: 10/03/2014 PDOP Reading: 2.2 Instrument Operator's Name: BRADLEY LAMAN

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
2286 FSL 40 FWL 2286 FSL 40 FWL
Sec: 28 Twp: 2N Rng: 64W Sec: 28 Twp: 2N Rng: 64W

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 because 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: 1824 Feet
- Building Unit: 1866 Feet
- High Occupancy Building Unit: 5280 Feet
- Designated Outside Activity Area: 5280 Feet
- Public Road: 630 Feet
- Above Ground Utility: 205 Feet
- Railroad: 378 Feet
- Property Line: 205 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: _____

SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 5289 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			
ATOKA	ATOK			
COUNCIL GROVE	COUGR			
DES MOINES	DSMS			
FOUNTAIN	FNTN			
LOWER SATANKA	LSTKA			
LYONS	LYNS			
MISSOURI	MSSR			
MORROW	MRRW			
VIRGIL	VRGL			
WOLFCAMP	WFCMP			

DRILLING PROGRAM

Proposed Total Measured Depth: 10640 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 5289 Feet (Including plugged wells)

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
SURF	12+1/4	9+5/8	36	0	1000	281	1000	0
1ST	8+3/4	7	26	0	8782	122	8782	7407
1ST LINER	6+1/8	4+1/2	11.6	8682	10640			
	8+3/4	7	Stage Tool		7407	761	7407	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 Please use Location Drawing for the Cultural Setback distances.
Forms 31 & 33 will be delivered to COGCC the same day this Form 2 is submitted via e-Forms.
This is a directional well and NGL owns the Surface and an Easement Agreement is attached for the BHL.

This application is in a Comprehensive Drilling Plan _____ 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 Gottlob

Title: Regulatory & Engin. Tech. Date: 12/5/2014 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: 1/15/2015

Expiration Date: 01/14/2017

API NUMBER
05 123 40973 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. 2) Comply with Rule 317.j and provide cement coverage from end of 7" casing to surface. Verify coverage with cement bond log. 3) Comply with Rule 321. Run and submit Directional Survey from TD to base of surface casing. Ensure that the wellbore complies with setback requirements in commission orders or rules prior to using the well.
	1. Daily drilling reports are required. 2. For all new drill Underground Injection Control 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. 3. 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. 4. A Mudlog is required containing at least the following information: a) Rate of Penetration Log, and b) The location of any drilling breaks or zones of lost circulation 5. A static water level taken after perforation in cased wells and prior to any stimulation in either cased or open-hole wells. 6. Prior approval of Form 4 Sundry Notice is required for Step Rate and Injectivity Tests. 7. Retrieve water sample(s) from injection zone(s) before stimulating formation, Step Rate Test, or Injectivity Test. 8. A Transient Injectivity Test is required to determine the Maximum Daily Injection Rate in barrels per day (bbls/day). 9. A Transient Injectivity Test or a Step Rate Test is required to determine the Maximum Injection Pressure in pounds per square inch (psi). 10. Injection is not authorized until approval of Forms 31 and 33. 11. Operator must pick all formation tops from surface to TD.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Traffic control	RULE 604.c.D: If required by the local government, a traffic plan shall be coordinated with the local jurisdiction prior to commencement of move in and rig up. Any subsequent modification to the traffic plan must be coordinated with the local jurisdiction.
2	Traffic control	RULE 604.c.S: At the time of construction, all leasehold roads shall be constructed to accommodate local emergency vehicle access requirements, and shall be maintained in a reasonable condition.
3	General Housekeeping	RULE 604.c.P: All surface trash, debris, scrap or discarded material connected with the operations of the property shall be removed from the premises or disposed of in a legal manner.
4	Construction	RULE 604.c.E: This will be a single well pad.
5	Construction	RULE 604.c.M: Unless otherwise requested by the Surface Owner, well sites constructed within Designated Setback Locations, shall be adequately fenced to restrict access by unauthorized persons.
6	Construction	RULE 604.c.Q: All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.

7	Construction	RULE 604.c.V: Where possible, operators shall provide for the development of multiple reservoirs by drilling on existing pads or by multiple completions or commingling in existing wellbores (see Rule 322). If any operator asserts it is not possible to comply with, or requests relief from, this requirement, the matter shall be set for hearing by the Commission and relief granted as appropriate. This surface is owned by the operator and serves as the closest to the proposed BHL as possible to get the necessary separation between BHL for the C5 & C5A wells.
8	Noise mitigation	RULE 604.c.A: Operations involving pipeline or gas facility installation or maintenance, or the use of a drilling rig, are subject to the maximum permissible noise levels for Light Industrial Zones, as measured at the nearest Building Unit. Short-term increases shall be allowable as described in 802.c. Stimulation or re-stimulation operations and Production Facilities are governed by Rule 802.
9	Noise mitigation	RULE 604.c.A: If determined necessary, lighting abatement measures shall be implemented, including the installation of lighting shield devices on all of the more conspicuous lights, low density sodium lighting where practicable; and rig shrouding is not believed necessary as this is an cropland area and the nearest building unit is over 1,000' away, however, at its election the operator may install temporary engineering controls consisting of perimeter sound walls during drilling and completion activities to provide noise relief. Permanent equipment on location shall be muffled to reduce noise, or shall be appropriately buffered.
10	Odor mitigation	Per Rule 805: Oil & gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare.
11	Drilling/Completion Operations	RULE 604.c.B: A Closed Loop Drilling System will be used and no pits.
12	Drilling/Completion Operations	RULE 604.c.C: Green Completions – No hydrocarbons anticipated – NA.
13	Drilling/Completion Operations	RULE 604.c.H: Blowout prevention equipment for drilling operations in a Designated Setback Location shall consist of (at a minimum): i. Rig with Kelly. Double ram with blind ram and pipe ram; annular preventer or a rotating head. ii. Rig without Kelly. Double ram with blind ram and pipe ram. Mineral Management certification or Director approved training for blowout prevention shall be required for at least one (1) person at the well site during drilling operations.
14	Drilling/Completion Operations	RULE 604.c.I: Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.
15	Drilling/Completion Operations	RULE 604.c.L: Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director. None planned for this well.
16	Drilling/Completion Operations	RULE 604.c.N: Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado. An emergency response plan has been generated for this site. No CBL over slotted liner completion.
17	Drilling/Completion Operations	RULE 604.c.O: All loadlines shall be bullplugged or capped.
18	Drilling/Completion Operations	Well will be logged with an open hole logging tool with gamma ray. A CBL will be run on all production casing or, in the case of a production liner, the intermediate casing, when these casing strings are run.

19	Drilling/Completion Operations	Logging – A resistivity log, run from the bottom of the surface casing to total depth of the disposal well or wells or any well within one (1) mile together with a log from that well that can be correlated with the injection well. If the disposal well is to be drilled, a description of the typical stratigraphic level of the disposal formation in the disposal well or wells, and any other available logging or testing data, on the disposal well or wells will be supplied.
20	Final Reclamation	RULE 604.c.T: Within ninety (90) days after a well is plugged and abandoned, the well site shall be cleared of all non-essential equipment, trash, and debris. For good cause shown, an extension of time may be granted by the Director.
21	Final Reclamation	RULE 604.c.U: The operator shall identify the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument.
22	Underground Injection Control	Formation Water, Mechanical Integrity, & Step Rate Tests will be done prior to approval to inject.

Total: 22 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
400703571	FORM 2 SUBMITTED
400728372	WELL LOCATION PLAT
400728377	WELL LOCATION PLAT
400743842	OTHER
400743926	DIRECTIONAL DATA
400743927	DEVIATED DRILLING PLAN
400747995	EXCEPTION LOC REQUEST

Total Attach: 7 Files

General Comments

User Group	Comment	Comment Date
#Error	Final Review Completed. No LGD or public comment received.	1/14/2015 3:38:09 PM
#Error	Offset wells evaluated.	1/14/2015 2:49:31 PM
#Error	changed to multiple zone	12/30/2014 1:56:31 PM
#Error	Permitting Review Completed.	12/23/2014 8:36:33 AM
#Error	Changed Casing Program, the 1st Liner setting from 11232' to 10640' to match TD per operator.	12/23/2014 8:23:37 AM
#Error	Forms 31 (#2092811) and 33 (#2092813) Submitted 12/5/2014.	12/10/2014 4:28:07 PM
#Error	Passed completeness.	12/9/2014 7:09:56 AM

Total: 7 comment(s)