

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:

400857284

APPLICATION FOR PERMIT TO:

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate

Date Received:

08/18/2015

TYPE OF WELL OIL ☐ GAS ☐ COALBED ☐ OTHER UICRefilling ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐Well Name: NGL ApolloWell Number: 11Name of Operator: NGL WATER SOLUTIONS DJ LLCCOGCC Operator Number: 10373Address: 3773 CHERRY CRK NORTH DR #1000City: DENVER State: CO Zip: 80209Contact Name: Paul GottlobPhone: (720)420-5747Fax: ()Email: paul.gottlob@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20110128

WELL LOCATION INFORMATION

QtrQtr: SENE Sec: 18 Twp: 6N Rng: 63W Meridian: 6Latitude: 40.489735Longitude: -104.472850Footage at Surface: 1446 feet FNL/FSL FNL 699 feet FEL/FWL FELField Name: WATTENBERGField Number: 90750Ground Elevation: 4663County: WELD

GPS Data:

Date of Measurement: 06/26/2015 PDOP Reading: 1.6 Instrument Operator's Name: Monty WallaceIf 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 ☐ IndianThe 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 ☐ IndianThe Minerals beneath this Oil and Gas Location will be developed by this Well: NoThe 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: 200 Feet

Building Unit: 742 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 537 Feet

Above Ground Utility: 483 Feet

Railroad: 5280 Feet

Property Line: 166 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: 07/14/2015

SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 237 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

The distance to the nearest wellbore permitted or completed in the same formation is to the Synergy Disposal 15-18 I (API 05-123-25694) - which was just recently P&A.

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: 10023 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 237 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? No

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 | 850 | 248 | 850 | 0 |
| 1ST | 8+3/4 | 7 | 26 | 0 | 8528 | 133 | 8528 | 7032 |
| 1ST LINER | 6+1/8 | 4+1/2 | 11.6 | 8428 | 10023 | | | |
| | 8+3/4 | | Stage Tool | | 7032 | 772 | 7032 | 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 Forms 31 & 33 and attachments will be delivered to COGCC shortly after this permit is submitted via e-Forms.

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: 8/18/2015 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: 9/23/2015

Expiration Date: 09/22/2017

API NUMBER

05 123 42210 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. |
| | <p>1. Injection is not authorized until approval of Forms 31 and 33.</p> <p>2. Operator required to contact COGCC to discuss Step Rate Test or Injectivity Test criteria for Maximum Surface Injection Pressure determination.</p> <p>3. Prior approval of Form 4 is required for step rate and injectivity tests.</p> <p>4. Retrieve water sample(s) from injection zone(s) before stimulating formation. Samples must be analyzed for Total Dissolved Solids at a minimum.</p> <p>5. 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 DILS file version of each log is required.</p> <p>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.</p> <p>7. Operator must provide all tops of formations encountered from surface to TD on the Form 5 when submitted.</p> |
| | Operator will submit gyro survey with Form 5 for this well. |

Best Management Practices

| <u>No</u> | <u>BMP/COA Type</u> | <u>Description</u> |
|-----------|--|---|
| 1 | Planning | <p>RULE 317.r: Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within 150' of the proposed well(s). This anti-collision scan will include definitive MWD or Gyro Surveys of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed well-path with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have Gyro Surveys conducted to verify the BHL. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as-constructed Gyro Survey will be submitted to COGCC with Form 5 if required.</p> |
| 2 | 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. |
| 3 | 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. |
| 4 | 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. |
| 5 | Material Handling and Spill Prevention | RULE 604.c.F: The Operator shall develop a plan to monitor Production Facilities on a regular schedule to identify fluid leaks. |

| | | |
|----|--|---|
| 6 | Material Handling and Spill Prevention | RULE 604.c.G: Berms or other secondary containment devices in Designated Setback Locations shall be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for one- hundred fifty percent (150%) of the largest single tank. Berms or other secondary containment devices shall be sufficiently impervious to contain any spilled or released material. All berms and containment devices shall be inspected at regular intervals and maintained in good condition. No potential ignition sources shall be installed inside the secondary containment area unless the containment area encloses a fired vessel. Refer to API Bulletin D16: Suggested Procedure for Development of a Spill Prevention Control and Countermeasure Plan. |
| 7 | Material Handling and Spill Prevention | RULE 604.c.R: All newly installed or replaced crude oil and condensate storage tanks shall be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). The operator shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director. Only the 2008 version of NFPA Code 30 applies to this rule. This rule does not include later amendments to, or editions of, the NFPA Code 30. NFPA Code 30 may be examined at any state publication depository library. Upon request, the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203, will provide information about the publisher and the citation to the material. |
| 8 | Construction | RULE 604.c.E: This will be a single well pad. |
| 9 | 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. |
| 10 | 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. |
| 11 | 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. |
| 12 | 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. |
| 13 | Noise mitigation | RULE 604.c.A: 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; since the nearest building unit is aprx. 738' to the SW, the operator will also 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. |
| 14 | Odor mitigation | 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. |
| 15 | Drilling/Completion Operations | RULE 604.c.B: A Closed Loop Drilling System will be used and no pits. |
| 16 | Drilling/Completion Operations | RULE 604.c.C: Green Completions – No hydrocarbons anticipated – NA. |
| 17 | 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. |

| | | |
|----|--------------------------------|---|
| 18 | 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. |
| 19 | 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. |
| 20 | 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. |
| 21 | Drilling/Completion Operations | RULE 604.c.O: All loadlines shall be bullplugged or capped. |
| 22 | Drilling/Completion Operations | Logging – 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. |
| 23 | 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. |
| 24 | 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. |
| 25 | Underground Injection Control | Formation Water, Mechanical Integrity, & Step Rate Tests will be done prior to approval to inject. |

Total: 25 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u> |
|---------------------------|----------------------------|
| 2238491 | WELL LOCATION PLAT |
| 400857284 | FORM 2 SUBMITTED |
| 400868442 | OffsetWellEvaluations Data |
| 400885683 | OTHER |

Total Attach: 4 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|--|--------------------------|
| Permit | Final Review Completed. No LGD or public comment received. | 9/22/2015 1:13:43 PM |
| UIC | Forms 31 and 33 received August 18, 2015. | 9/21/2015 10:12:42 AM |
| UIC | Because operator is requesting a maximum daily injection rate greater than 10,000 bbl/d (request is for 24,000 bbl/d) on the UIC Form 31 permit, there will be a COA on the Form 31 for the operator to install and maintain a seismic monitoring station within a 1-mile radius of this well. | 9/21/2015 10:07:29 AM |
| Permit | Operator revised logging BMP. | 9/15/2015 4:24:17 PM |
| Permit | Operator moved wellbore to 1446' FNL, 699' FEL, Lat. 40.489735, Lon. -104.47285. Distances to wellbores and cultural distances revised. Revised Well Location Plat attached. | 9/15/2015 3:52:54 PM |
| Permit | Building 190' away. Operator will move wellhead to at least 200' away from building. Logging BMP does not meet the requirments of Rule 317.p guidance document. Contacted operator to revise BMP. | 9/14/2015 11:52:30 AM |
| Permit | Passed completeness. | 9/1/2015 8:02:20 AM |
| Permit | Waiting on review of the distance from the wellhead to the "Building" from OGLA specialist. | 8/24/2015 8:00:26 AM |

Total: 8 comment(s)