

FORM  
2A

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:

401575754

Date Received:

04/24/2018

Oil and Gas Location Assessment

New Location     Refile     Amend Existing Location    Location#: \_\_\_\_\_

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

**456888**

Expiration Date:

**08/26/2021**

This location assessment is included as part of a permit application.

CONSULTATION

- This location is included in a Comprehensive Drilling Plan. CDP # \_\_\_\_\_
- This location is in a sensitive wildlife habitat area.
- This location is in a wildlife restricted surface occupancy area.
- This location includes a Rule 306.d.(1)A.ii. variance request.

Operator

Operator Number: 10373  
 Name: NGL WATER SOLUTIONS DJ LLC  
 Address: 3773 CHERRY CRK NORTH DR #1000  
 City: DENVER    State: CO    Zip: 80209

Contact Information

Name: PAUL GOTTLÖB  
 Phone: (720) 420-5747  
 Fax: ( )  
 email: paul.gottlob@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20110128     Gas Facility Surety ID: \_\_\_\_\_
- Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: SOUTH WELD SWD FACILITY    Number: \_\_\_\_\_  
 County: WELD  
 Quarter: SWNE    Section: 30    Township: 1N    Range: 66W    Meridian: 6    Ground Elevation: 4952

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 1615 feet FNL from North or South section line  
1713 feet FEL from East or West section line

Latitude: 40.025060    Longitude: -104.816560

PDOP Reading: 2.3    Date of Measurement: 06/13/2018

Instrument Operator's Name: Casey Kohout



Name: NGL Water Solutions DJ Phone: \_\_\_\_\_  
 Address: 3773 Cherry Creek North Drive, Fax: \_\_\_\_\_  
Suite 1000  
 Address: \_\_\_\_\_ Email: \_\_\_\_\_  
 City: Denver State: CO Zip: 80209

Surface Owner:  Fee  State  Federal  Indian

Check all that apply. The Surface Owner:  is the mineral owner  
 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 from or produced to this Oil and Gas Location: No

The right to construct this Oil and Gas Location is granted by: applicant is owner

Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_

Date of Rule 306 surface owner consultation \_\_\_\_\_

**CURRENT AND FUTURE LAND USE**

Current Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP

Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_

Subdivided:  Industrial  Commercial  Residential

Future Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP

Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_

Subdivided:  Industrial  Commercial  Residential

## CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	400 Feet	205 Feet
Building Unit:	808 Feet	561 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	318 Feet	640 Feet
Above Ground Utility:	222 Feet	75 Feet
Railroad:	2242 Feet	1726 Feet
Property Line:	239 Feet	194 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.  
- 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.  
- For measurement purposes only, Production Facilities should only include those items with an asterisk(\*) on the Facilities Tab.

## DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a:

- Buffer Zone  
 Exception Zone  
 Urban Mitigation Area

Does the UMA Facility meet the definition of a Large UMA Facility  Yes  No

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: 06/12/2018

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 03/06/2018

- 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.  
- Large UMA Facility - as defined in 100-Series Rules.

## FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (on or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

After careful consideration with the operator/surface owner, the wells and facilities were located on the property in a manner to maximize the distance to offsetting building units. After looking at all possible alternate options it was determined that this layout is least impactful and as far as possible from neighboring building units and property's, while also remaining operationally feasible for the operator. This property as well as neighboring property is zoned and used as industrial, making this location consistent with current land use.

## SOIL

List all soil map units that occur within the proposed location. attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: #1 - Altvan loam, 0 to 1% slopes

NRCS Map Unit Name: \_\_\_\_\_

NRCS Map Unit Name: \_\_\_\_\_

**PLANT COMMUNITY:**

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes  No

Plant species from:  NRCS or,  field observation Date of observation: \_\_\_\_\_

List individual species:

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- Alpine (above timberline)
- Other (describe): \_\_\_\_\_

## WATER RESOURCES

Is this a sensitive area:  No  Yes

Distance to nearest

downgradient surface water feature: 47 Feet

water well: 817 Feet

Estimated depth to ground water at Oil and Gas Location 19 Feet

Basis for depth to groundwater and sensitive area determination:

Due to proximity to ponds to the south and nearby ditch this is considered a sensitive area.

Distance to nearest:

1. Downgradient surface water feature: 47' off west edge of pad.

2. Water well: 643' to permit 206557.

Estimated depth to ground water at O&G location: 19' based upon nearby water well Permit 6292-R -R with perf depth of 19'.

Is the location in a riparian area:  No  Yes

Was an Army Corps of Engineers Section 404 permit filed  No  Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No zone:

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: \_\_\_\_\_

Is the Location within a Floodplain?  No  Yes Floodplain Data Sources Reviewed (check all that apply)

Federal (FEMA)

State

County

Local

Other

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

## WILDLIFE

This location is included in a Wildlife Mitigation Plan

This location was subject to a pre-consultation meeting with CPW held on \_\_\_\_\_

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

Rule 604.a.(1)A. Exception Zone (within 500' of a Building Unit) and is in an Urban Mitigation Area

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)

**RULE 502.b VARIANCE REQUEST**

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

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 Location ID Footages are from the South Weld SWD 1 well.  
Cultural Setbacks are listed on the Cultural Items Drawing saved as "Other".  
The 2nd well which will be on this same location will be submitted ASAP, but is not expected to be on the same timeline for approval.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: \_\_\_\_\_ Date: 04/24/2018 Email: paul.gottlob@iptenergyservices.com

Print Name: PAUL GOTTLOB Title: Regulatory & Engin. Tech.

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

**Conditions Of Approval**

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

<u>COA Type</u>	<u>Description</u>
	The Approved Form 2A permit will be posted at the location during construction, drilling, and completions operations.

**Best Management Practices**

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	604.c(2)M. Fencing: The Wellheads will have very small shelters enclosing them with locked doors. The Facility Tanks will be cement bermed and fenced.
2	Planning	604.c.(2)J.i Blowout Prevention Equipment ("BOPE"): A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.
3	Planning	604.c.(2)J.ii Backup stabbing valves be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.
4	Planning	604.c.(2)N. Control of fire hazards: All material that is considered a fire hazard shall be a minimum of 25' from the wellhead tanks or separators. Electrical equipment shall comply with API IRP 500 and will comply with the current national electrical code.
5	Planning	317.r Statewide Wellbore Collision Prevention: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
6	Traffic control	604.c.(2)S. Access Roads: The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times. Traffic will be routed to minimize local interruption. Dust control measures will also be utilized.
7	Traffic control	604.c.(2)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.

8	General Housekeeping	604.c.(2)P. Trash Removal: All trash, debris and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as applicable.
9	Material Handling and Spill Prevention	Construction / Rule 604.c(2) 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," 5th Edition (April 2011). Only the 5th Edition of the API bulletin applies to this rule; later amendments do not apply. All material incorporated by reference in this rule is available for public inspection during normal business hours from the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203. In addition, these materials may be examined at any state publications depository library and are available from API at 1220 L Street, NW Washington, DC 20005-4070. NGL plans to construct Cement containment berms per the above guidelines to completely contain all of the planned Tanks on this location.
10	Construction	803. Light sources during all phases of operations will be directed downwards and away from occupied structures where possible. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on the well pad site. Lighting shall be mounted at Facility on a pole or building and directed downward to illuminate key areas within the facility, while minimizing the amount of light projected outside the facility.
11	Construction	604.c.(2).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.
12	Construction	604.c.(2).E. This will be a 2 well pad (One Vertical and 1 Directional).
13	Noise mitigation	604.c.(2)A. Sound walls will be used to surround the well site during drilling and completion operations.
14	Emissions mitigation	604.c.(2)C.i. Green Completions - Emission Control System: Test separators and associated flow lines and sand traps shall be installed on-site to accommodate green completions techniques pursuant to COGCC Rules. In the anticipated absence of a viable gas sales line, the flowback gas shall be thermally oxidized in an emissions control device (ECD), which will be installed and kept in operable condition for least the first 90-days of production pursuant to CDPHE rules. This ECD shall have an adequate capacity for 1.5 times the largest flowback within a 10 mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustions where non-combustible gases are present. NOT APPLICABLE TO UIC WELLS AS NO HYDROCARBONS EXPECTED
15	Odor mitigation	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. Odors will be managed by engine filters and well gas will initially be flared until connected to sales line. FLARING NOT APPLICABLE TO UIC WELLS AS NO HYDROCARBONS EXPECTED
16	Drilling/Completion Operations	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.
17	Drilling/Completion Operations	604.c.(2)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.
18	Drilling/Completion Operations	604.c.(2).O. Drilling and Completion-All loadlines shall be bullplugged or capped.

19	Drilling/Completion Operations	604.c.(2)B.i Operator will be utilizing a closed loop system.
20	Drilling/Completion Operations	Operator will comply with COGCC Policy for Braden-head Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012. NO FRACKING PLANNED
21	Drilling/Completion Operations	On all new drill Underground Injection Control wells a suite of open-hole Resistivity/Gamma Ray and Density/Neutron logs are required from Surface Casing shoe to TD. Both PDF visual images and LAS file versions of the logs are required.
22	Final Reclamation	Reclamation / Rule 604.c(2) 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. If plugging of the well is required it will most likely be done while the drilling rig is still on location, and the site will be cleared of all non-essential equipment, trash, and debris within 90 days of plugging.
23	Final Reclamation	Reclamation / Rule 604.c(2) U: If plugging of the well is required, 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.

Total: 23 comment(s)

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2316380	ACCESS ROAD MAP
2316381	CULTURAL ITEMS
2316382	HYDROLOGY MAP
2316383	LOCATION DRAWING
2316384	LOCATION PICTURES
2316385	MULTI-WELL PLAN
2316386	OTHER
2316387	FACILITY LAYOUT DRAWING
2316389	RULE 306.E. CERTIFICATION
2316401	WAIVER
2316413	OPERATOR REPSONSE TO PUBLIC COMMENT
401575754	FORM 2A SUBMITTED
401576005	NRCS MAP UNIT DESC
401602220	ACCESS ROAD MAP
401602227	HYDROLOGY MAP
401602230	LOCATION DRAWING
401602234	LOCATION PICTURES
401610962	FACILITY LAYOUT DRAWING
401610964	OTHER
401617719	MULTI-WELL PLAN
401617720	PRE-APPLICATION NOTIFICATION CERTIFICATION

Total Attach: 21 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
OGLA	OGLA supervisor reviewed: Adjusted construction and reclamation dates. OGLA review complete.	08/22/2018

OGLA	OGLA Supervisor review - meets COGCC Rules. OGLA review complete and task passed.	08/22/2018
OGLA	Operator provided response to public comments - attached. Send to OLGA supervisor for buffer review.	08/20/2018
OGLA	The neighboring local jurisdiction provided a public comment the location was in a UMA and exception zone requiring a waiver from the building unit owner. A exception zone waiver was not obtained, so the Operator moved the location to be outside the exception zone, but still a UMA location for a commercial building to the southeast of the location. The operator provided a waiver signed 7/31/2018 by the local government designee for the 305.a. as it was not delivered prior to submittal of the 2A. The Operator has been working through the local government permitting process. Traffic and road use will be issued through the local governments with jurisdiction over the roads and right-of-ways.  Attached the waiver and 306.e. certification. Request response from Operator to public comments.	08/03/2018
OGLA	Operator provided updated drawings (Access road, cultural, hydrology map, location drawing, facility drawing, multi-well plan, notification drawing (other), and location pictures) Location pictures show cropland not planted this season. Cultural distances for production are from the edge of the bermed area. Updated lat/long, cultural distances, and water information per email provided by Operator. Waiting for 306.e. certification and waiver from the LGD.	07/13/2018
OGLA	Location is in a UMA based on commercial building within the designated setback area and additional residential building units. Requested Operator obtain a waiver from the LGD based on UMA and commercial building unit based on exception zone. Operator communicated potential to move location out of exception zone. Place permit ON HOLD until Operator provides waivers and/or location change information.	06/12/2018
OGLA	Spoke with Operator on 6/6 and 6/7 via phone regarding UMA and commercial building in the exception zone. Discussed public comment on the 2A.	06/08/2018
OGLA	OGLA review: Facility list is missing sludge tanks, ask that pumps are in pump building for clarification; cultural distances for building unit and railroad are not from nearest well as represented on "other" cultural features map; Exception zone box is checked, but not buffer zone; commercial building has two areas, but total is 52,000 sqft of commercial space = 10 building units and should be UMA location; Hydrology map does not match water resources, potentially closer water well - check for field verification of water well; missing BMPs for 604.c.(2)G, T, U and protection of sensitive surface and ground water; Public comment period was extended to the date of construction, request new dates, as UMA and exception zone, need waiver from exception zone building unit owner, waiver from LGD, and 306.e. certification .	06/05/2018
OGLA	On May 21, 2018, the LGD requested the public comment period be extended 10 days. The new end date for the public comment is 5/31.	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". - deleted SUA attachment.  Permitting review complete.	06/05/2018
Permit	Referred to OGLA Supervisor for Buffer Zone review.	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); attached SUA infers that NGL Water Solutions is not the surface owner at this location. - SUA does not adequately describe the surface lands; request a map of lands.	06/04/2018

LGD	The disposal well facility operator has had a pre-application meeting with the Weld County Planning Department and at this time plans to rezone to Industrial and go through the Site Review Process, which will require public hearings and a 3 mile referral radius, which will include referrals to the City of Brighton. This proposed facility is not for oil and gas production, therefore the COGCC has no authority to approve the site. Disposal facility siting is under the authority of the local governing body. Troy Swain, Weld Oil/Gas Liaison and LGD (970) 400-3579.	05/21/2018
Permit	Passed Completeness.	05/01/2018

Total: 15 comment(s)