

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:

400689054

**(REJECTED)**

Date Received:

03/09/2015

Oil and Gas Location Assessment

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

Submit signed original form. 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:

Expiration Date:

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: 10459  
Name: EXTRACTION OIL & GAS LLC  
Address: 1888 SHERMAN ST #200  
City: DENVER    State: CO    Zip: 80203

Contact Information

Name: Jennifer Grosshans  
Phone: (303) 928-7128  
Fax: (303) 218-5678  
email: regulatory@petro-fs.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20130028     Gas Facility Surety ID: \_\_\_\_\_
- Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Johnson Trust    Number: 13-I Pad  
County: WELD

Quarter: NWSW    Section: 13    Township: 2N    Range: 68W    Meridian: 6    Ground Elevation: 4925

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: 2153 feet FSL from North or South section line  
389 feet FWL from East or West section line

Latitude: 40.137339    Longitude: -104.959620

PDOP Reading: 1.6    Date of Measurement: 07/12/2014

Instrument Operator's Name: Alan Hnizdo



## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Other

Other Disposal Description:

Cuttings will be disposed of by land spreading.

Extraction Windsor Land Application COGCC Facility 433752 will be used for offsite disposal.

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: 433752 or Document Number: \_\_\_\_\_

Centralized E&P Waste Management Facility ID, if applicable: \_\_\_\_\_

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Meredith O. Johnson Trust

Phone: \_\_\_\_\_

Address: 14491 Weld County Road 5

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Longmont State: CO Zip: 80504

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: Yes

The right to construct this Oil and Gas Location is granted by: oil and gas lease

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:	501 Feet	515 Feet
Building Unit:	501 Feet	515 Feet
High Occupancy Building Unit:	4622 Feet	4657 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	372 Feet	91 Feet
Above Ground Utility:	450 Feet	169 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	381 Feet	107 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

- 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: 09/05/2014

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 08/07/2014

## 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.

Extraction Oil & Gas, LLC (Extraction) designed the Johnson Trust 13-I Production Facility to be a safe distance from neighboring houses and buildings, clear of the 100 year flood plain and located efficiently for regular maintenance and access. Extraction agreed upon an oil and gas operations area per the landowner/ operator Surface Use Agreement pertaining to these horizontal wells. Where possible, consolidation of existing facilities has been attempted to keep the disturbed area to a minimum. Extraction has reviewed the surrounding areas to identify any technical and economical options outside of buffer zones. As a result of Operator's review of potential locations outside Buffer Zone, the operator has determined that this is the best possible location for the facilities given the surface owner's preference, property boundaries, utility easements and current COGCC setbacks.

Please see map and justification attached as Siting Rationale showing other options explored by operator.

## 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: 37-Nelson Fine Sandy Loam - 0 to 3 percent slopes

NRCS Map Unit Name: 38-Nelson Fine Sandy Loam - 3 to 9 percent slopes

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: 73 Feet

water well: 1571 Feet

Estimated depth to ground water at Oil and Gas Location 11 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest downgradient surface water feature is a ditch.

Nearest water well is CDWR Permit 90267, but nearest water well with recorded SWL is CDWR Permit 635 which is 2821' SW.

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: \_\_\_\_\_

### GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

### 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)

**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 Letter to Director for COGCC Rule 303b.(3)J.iii. Building Unit Owner Pre-Application Notification receipts, attached as Correspondance.  
Letter to Director for COGCC Rule 303b.(3)K. Local Government Pre-Application Notification receipt, attached as LGD Consultation.  
Extraction is aware that this location falls within the Town of Frederick city limits and will be applying for a Town of Frederick Special Use Permit (SUP).  
A Town of Frederick Town Hall meeting was held 1/28/15 where all homeowner concerns of the aforementioned were addressed and resolved.

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

Signed: \_\_\_\_\_ Date: 03/09/2015 Email: regulatory@petro-fs.com

Print Name: Jennifer Grosshans Title: Regulatory Analyst

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: \_\_\_\_\_

**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.**

<b>COA Type</b>	<b>Description</b>

**Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Planning	Multi-Well Pads are located in a manner which allows for resource extraction while maintaining the highest distances possible from the offsetting residential areas and complies with the wishes of the surface owner.  A meeting with the surface owner will determine the fencing plan.  Tanks will be designed, constructed and maintained in accordance with NFPA Code 30. The tanks are visually inspected once a day for issues, and recorded inspections are conducted once a month.  Operator will be paying for, installing and maintaining landscape screening on the north side of facilities closest to building units.
2	Pre-Construction	Anti-collision: 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.  Identification of plugged and abandoned wells will be identified pursuant to 319.a.(5)

3	Traffic control	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.
4	General Housekeeping	<p>Visual Impacts: Equipment, regardless of construction date, which are observable from any public highway shall be painted with uniform, non-contrasting, non-reflective color tones (similar to the Munsell Soil Color Coding System), and with colors matched to, but slightly darker than, the surrounding landscape.</p> <p>Maintain appearance with garbage clean-up; a trash bin will be located on site to accumulate waste by the personnel drilling the wells. Site will have unused equipment, trash and junk removed immediately. Operator shall keep the Surface Use Area as well as any roads or other areas used by Operator safe and in good order, including control of noxious weeds litter and debris.</p>
5	Storm Water/Erosion Control	Use water bars, and other measures to prevent erosion and non-source pollution. Implement and maintain BMPs to control stormwater runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation. Co-locate gas and water gathering lines whenever feasible, and mitigate any erosion problems that arise due to the construction of any pipeline(s).
6	Material Handling and Spill Prevention	<p>Leak Detention Plan: Pumper will visit the location daily and visually inspect all tanks and fittings for leaks. Additionally, monthly documented SPCCP inspections are conducted pursuant to 40 CFR 112.</p> <p>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.</p> <p>Operator shall comply with state and federal laws, rules and regulations governing the presence of any petroleum products, toxic or hazardous chemicals or wastes on the Subject lands.</p>
7	Dust control	Operator shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high- wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. Additional management practices such as road surfacing, wind breaks and barriers may be used.
8	Construction	<p>Berm Construction- Tanks berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition.</p> <p>Containment berms shall be constructed and designed to prevent leakage and resist degradation from erosion or routine operation. Tertiary containment, such as an earthen berm, will be installed as required for Production Facilities within 500 feet. All berms will be visually checked periodically to ensure proper working condition.</p> <p>Guy line anchors: All guy line anchors shall be brightly marked pursuant to Rule 604.c. (2)Q.</p>
9	Noise mitigation	<p>Sound walls and/or hay bales will be used to surround the well site during drilling operations to shield sensitive areas.</p> <p>Sound walls will be used to surround the vapor recovery units and/or combustion motors during production operations to shield sensitive areas.</p> <p>Operator will investigate the possibility of using electricity to power the facilities in order to decrease the amount of noise from combustion generators and/or engines.</p> <p>Baseline noise monitoring and testing will be conducted prior to commencement of construction and dirt work.</p> <p>Additional Sound mitigation measures will be considered and implemented pursuant to third party recommendations.</p>

10	Emissions mitigation	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.
11	Odor mitigation	<p>Equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare.</p> <p>Oil and gas operations shall be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.</p>
12	Drilling/Completion Operations	<p>A closed –loop system will be used for drilling operations.</p> <p>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.</p> <p>Lighting: Site lighting shall be directed downward and inward and shielded so as to avoid glare on public roads and Building Units within one thousand (1000) feet where possible. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site.</p> <p>Bradenhead Monitoring: Operator acknowledges and will comply with COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.</p> <p>Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged.</p>
13	Interim Reclamation	Operator shall be responsible for segregating the topsoil, backfilling, repacking, reseeding, and recontouring the surface of any disturbed area so as not to interfere with Owner’s operations and shall reclaim such area to be returned to pre-existing conditions as best as possible with control of all noxious weeds.
14	Final Reclamation	Within 90 days subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site. The Operator shall restore the surface of the Land affected by such terminated operations as near as possible to the previous state that existed prior to operations.

Total: 14 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400689054	FORM 2A SUBMITTED
400744338	MULTI-WELL PLAN
400744346	LOCATION DRAWING
400744348	LOCATION PICTURES
400744351	ACCESS ROAD MAP
400744354	HYDROLOGY MAP
400744357	NRCS MAP UNIT DESC
400744368	NRCS MAP UNIT DESC
400744404	CORRESPONDENCE
400744421	LGD CONSULTATION
400798759	SITING RATIONALE
400798959	WASTE MANAGEMENT PLAN

Total Attach: 12 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Based on incomplete and incorrect information on the Rule 305.a Pre-application notification letters that were sent to Building Unit owners in the Buffer Zone, COGCC has determined that Form 2A rejection is the appropriate and necessary action. In accordance with Rule 305.a.(2)D, the Local Governmental Designee's (LGD's) contact information is required on Pre-application notification letters. The Pre-application letters incorrectly listed the Weld County LGD's contact information. The proposed Location is in the Town of Frederick and the letters should have listed the Town of Frederick LGD contact information. The letters also did not have the anticipated calendar quarter and year for commencing operations, as required in 305.a.(2)C.	5/1/2015 5:12:15 PM
Public	<p>Why is this company being allowed to put 2 huge pads with tons of equipment and tanks almost next to each other, with one of them very very close to dozens of homes? Encana is already starting 3 huge sites near the subdivision. Is there really any justification to allow Extraction to drill both proposed locations? It seems absurd that homeowners have no</p> <p>rights in the process, but that well pads can be put close to their homes because 2 surface owners</p> <p>don't agree! Seems as though they should be the ones that need to come up with a compromise so that the homeowners aren't the ones that pay the price for their economic gains. Why can't COGCC insist that they operator attempt to get the surface owners to agree, maybe mediation? That seems more reasonable and safer to neighborhoods than just letting</p> <p>each surface owner put in a huge well pad. Please consider asking Extraction to work harder with the surface owners to keep this further away from the homes!</p>	4/20/2015 12:44:11 PM

Public	<p>Has any consideration been given to the fact that we already have 3 Encana sites going in to the west of Stoneridge and now have 2 applications for Extraction sites just to the south and southwest of the subdivision? There is already a lot of construction traffic and the roads are busy. What are we expected to do in the event of an emergency situation or evacuation? Many families live on cul-de-sacs with only one way out of the neighborhood. Isn't there some way that</p> <p>these companies can drill in just one or two places to get to all of the oil and gas? Since both of the pending sites are for Extraction, isn't there some way to encourage the surface owners to work together and protect the families nearby???</p>	4/18/2015 7:02:20 PM
Public	<p>We do not see a facility layout drawing, where do we find this information? We are concerned about the proximity of the equipment to our house. After watching the explosion yesterday in Greeley, we are very concerned about safety considering these wells are 501 ft from a house. If the equipment gets any closer our safety seems for sure to be in jeopardy.</p>	4/18/2015 6:26:03 PM
Permit	<p>Per operator changed date planned to commence construction from 2/11/2015 to 07/01/15 and date of interim reclamation will begin from 8/12/2015 to 01/01/16. Permitting Review Complete.</p>	4/14/2015 3:14:00 PM
Permit	<p>ON HOLD: requesting correction to Date planned to commence construction is before application was submitted. 2/11/2015 ??</p>	4/14/2015 2:25:37 PM
Permit	<p>The comment period for Extraction's Johnson Trust 9 form 2's and form 2A in Section 13 T2N R68W has been extended by Town of Frederick LGD request from ending 3/30 and 4/1 to ending 4/21/2015.</p>	3/30/2015 9:40:42 AM
Permit	<p>Corrected NRCS attachment from "Multi-well Plan" to "NRCS Map Unit Desc". Passed completeness.</p>	3/12/2015 2:42:36 PM
OGLA	<p>Passed Buffer Zone completeness - Operator provided Facility Layout Drawing</p>	3/12/2015 1:22:34 PM
OGLA	<p>Buffer Zone completeness review- did not pass - missing Facility Layout Drawing. Operator contacted for Drawing -</p>	3/12/2015 1:13:20 PM
Permit	<p>Located within buffer zone; referred to OGLA for further review.</p>	3/10/2015 9:28:23 AM

Total: 11 comment(s)