

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:

400645917

Date Received:

07/29/2014

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:

439555

Expiration Date:

10/29/2017

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: 10359
 Name: WARD PETROLEUM CORPORATION
 Address: PO BOX 1187
 City: ENID State: OK Zip: 73702

Contact Information

Name: Andrea Gross
 Phone: (303) 942-0506
 Fax: ()
 email: agross@upstreampm.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20100221 Gas Facility Surety ID: _____
- Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Todd Creek Farms Production Fac. Number: _____
 County: ADAMS
 Quarter: SWNW Section: 14 Township: 1S Range: 67W Meridian: 6 Ground Elevation: 5063

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: 2371 feet FNL from North or South section line
723 feet FWL from East or West section line
 Latitude: 39.965630 Longitude: -104.862840
 PDOP Reading: 1.4 Date of Measurement: 11/26/2013
 Instrument Operator's Name: Rob Daley

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID # FORM 2A DOC #

Production Facilities Location serves Well(s) _____

400541851

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells _____	Oil Tanks <u>14</u>	Condensate Tanks _____	Water Tanks <u>14</u>	Buried Produced Water Vaults _____
Drilling Pits _____	Production Pits _____	Special Purpose Pits _____	Multi-Well Pits _____	Temporary Large Volume Above Ground Tanks _____
Pump Jacks _____	Separators <u>12</u>	Injection Pumps _____	Cavity Pumps _____	
Gas or Diesel Motors _____	Electric Motors _____	Electric Generators _____	Fuel Tanks _____	Gas Compressors _____
Dehydrator Units _____	Vapor Recovery Unit _____	VOC Combustor _____	Flare _____	LACT Unit _____
				Pigging Station _____

OTHER FACILITIES

Other Facility Type

Number

Meters

12

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

CONSTRUCTION

Date planned to commence construction: 11/15/2014 Size of disturbed area during construction in acres: 1.40

Estimated date that interim reclamation will begin: 11/15/2014 Size of location after interim reclamation in acres: 1.40

Estimated post-construction ground elevation: 5063

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: No

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: _____ Drilling Fluids Disposal Method: _____

Cutting Disposal: _____ Cuttings Disposal Method: _____

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Mark and Kelly Richers

Phone: _____

Address: 14975 Riverdale Rd.

Fax: _____

Address: _____

Email: _____

City: Brighton State: CO Zip: 80602

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: Surface Use Agreement

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

Distance to nearest:

Building: 450 Feet
Building Unit: 786 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 820 Feet
Above Ground Utility: 260 Feet
Railroad: 5280 Feet
Property Line: 264 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.

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: 12/16/2013
Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 12/16/2013

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 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: ShF- Samsil-Shingle complex 3 to 35 percent 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: Western wheatgrass, Sideoats grama, Green needlegrass, Indian ricegrass, Winterfat, Fourwing saltbush, Blue grama, Alkali sacaton

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: 220 Feet

water well: 1005 Feet

Estimated depth to ground water at Oil and Gas Location 1 Feet

Basis for depth to groundwater and sensitive area determination:

Depth to groundwater was determined from Water Well Permit 292767 which is located in Sec. 15 T1S R67W.

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 N/A

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

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

Signed: _____ Date: 07/29/2014 Email: agross@upstreampm.com

Print Name: Andrea Gross Title: Permit Agent

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: 10/30/2014

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>
	Pressure testing of the flowlines shall be conducted annually and in compliance with COGCC Rule 1101.e(1).
	The proposed Location is located in a Buffer Zone and Urban Mitigation Area. Low profile tanks shall be used to mitigate impacts to visual resources.
	<p>The proposed location is in a sensitive area with shallow groundwater, transecting drainage, and up gradient from residential communities. Secondary containment areas for tanks shall be constructed of steel rings, designed and installed to prevent leakage and resist degradation from erosion or routine operation and shall be constructed with a synthetic or engineered liner that contains all primary containment vessels and flowlines and is mechanically connected to the steel ring to prevent leakage. In addition, pursuant to 604.c(3)B.iii, tertiary containment along the north and northwest perimeters of the proposed Location shall implemented to protect the drainage from potential releases.</p> <p>In addition, the proposed Location will be lined using 30 mil synthetic liner to help prevent uncontrolled migration in the circumstance of tank failure.</p>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Material Handling and Spill Prevention	Leak Detection Plan: To ensure protection for the surface during fracturing treatment, the location will be specifically constructed to contain any releases or spills. Secondary containment from any chemical spills or leaks will surround any trucks that carry, mix, or add chemicals to the flow stream as well as connections that could possibly leak fluid. Should any spill or release occur, every reasonable step will be taken to quickly remediate the area disturbed.
2	Material Handling and Spill Prevention	Control of Fire Hazards: Ward and its contractor's employ best management practices during the drilling and production of its wells and facilities. They will comply with appropriate COGCC and any county rules concerning fire and safety. Ward will ensure that any flammable material will remain no less than 25 feet from the wellhead (s), tanks and separator(s).
3	Construction	Berm Construction: A containment berm will be constructed around the oil and water storage tanks. The berm will be inspected regularly and maintained in good condition.
4	Drilling/Completion Operations	Tank specifications: Tanks shall be constructed and maintained in accordance with the National Fire Protection Association Code 30 (2008 version). All tanks will be visually inspected once a day for issues. Recorded inspections will be conducted once a month pursuant to 40 CFR §112.

Total: 4 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1009678	FACILITY LAYOUT DRAWING
2157791	SURFACE AGRMT/SURETY
400645917	FORM 2A APPROVED
400646538	CONST. LAYOUT DRAWINGS
400646539	LOCATION DRAWING
400646540	HYDROLOGY MAP
400646542	LOCATION PICTURES
400646544	NRCS MAP UNIT DESC
400646545	REFERENCE AREA MAP
400646548	REFERENCE AREA PICTURES
400646554	ACCESS ROAD MAP
400650037	SURFACE AGRMT/SURETY
400652623	OTHER
400652625	RULE 306.E. CERTIFICATION
400721466	FORM 2A SUBMITTED

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review--passed.	10/30/2014 12:12:25 PM
OGLA	Changed Construction and Interim Reclamation dates to accomodate new schedule.	10/15/2014 6:03:09 PM

<p>OGLA</p>	<p>These comments have been copied over from the Form 2A for the Well Location as they pertain to the Form 2A for the Production Facility.</p> <p>Thank you for this opportunity to comment on Ward Petroleum's Todd Creek Farms 15-2-3HC .Form 2A Location Assessment.The well location is within the City of Brighton's "Planning Influence Area".The map for the Planning Influence Area is located at:http://co-brighton.civicplus.com/DocumentCenter/View/137.</p> <p>The City of Brighton does not take a position on this application, but would like some additional information that would help City staff identify potential impacts to Brighton's infrastructure – specifically its roads.</p> <p>There are a few items that appear to be missing from the Form 2A application.It appears likely that haul routes to and from the proposed location will go through the City of Brighton but more information is necessary to understand what impact it might have on Brighton's infrastructure.</p> <p>2)Page 5 of the Form 2A states that "production facilities will be at an offsite location".Please identify on a map where the offsite production facilities are located and the location of the pipeline corridor Ward is intending to use.</p> <p>3)Rule 604.c. (2)E. states that "Multi-well production facilities shall be located as far as possible from Building Units."Please provide the analysis undertaken that shows that the location chosen is as "far away as possible" from building units.</p> <p>4)Leak Detection Plan(Rule 604.c(2)F) appears to be missing.While the well site location is not within ½ mile of Brighton's protected source water areas, Brighton would still like to know that there is a plan in place to protect ground water sources.</p> <p>Brighton appreciates the opportunity to comment on this proposed site.Please contact us if there are any questions about these comments.</p> <p>Sincerely,</p> <p>Matt Sura</p> <p>Special Counsel for the City of Brighton.</p>	<p>10/15/2014 12:56:05 PM</p>
<p>OGLA</p>	<p>Thank you for taking the time to review and comment on this COGCC Form 2A Location Assessment. The following provides resposes to your comments.</p> <p>2) Coordinates and a Location Drawing have been submitted under the Attachments tab of this Form 2A.</p> <p>3) The Production Facility location was chosen after careful consideration of setbacks, including existing overhead utility line, topography, and discussions with the surface owner. Due to surface owner constraints and topography Ward was limited on the placement of the production facility.</p> <p>4) Per Rule 604.c(2)F, a Leak Detection Plan has been submitted with the Form 2A for this Production Facility Location. In addition, a Condition of Approval has been placed on the permit requiring ling of the Facility along with secondary and tertiary containment. Pressure testing of the flowlines will be conducted annually.</p>	<p>10/15/2014 12:54:21 PM</p>
<p>OGLA</p>	<p>Thank you for taking the time and opportunity to review and comment on this Form 2A Location Assessment. In response to the Public Comment dated 08/20/2014, the COGCC has reviewed this public comment regarding the Form 2A for this proposed Oil and Gas Location. In consideration of the Best Management Practices and Conditions of Approval placed on the permit, it has been determined that the approved Location meets the intent of the Oil and Gas Conservation Act (as declared in C.R.S. 34-60-102) and is subject to all Rules, Orders and Policies of the Commission.</p>	<p>10/9/2014 12:37:14 PM</p>

Permit	Oper. submitted surface ownership map.	9/8/2014 7:32:53 AM
Public	<p>We are opposed to exceptions being granted for the attached proposal.</p> <p>There are many reasons.</p> <p>Safety of nearby citizens (tax payers and homeowners)</p> <p>Water runoff directly into Brantner Gulch which will affect the Brighton Agricultural community</p> <p>Bentonite soil under the foundations of the houses of Todd Creek Farms and Silver Springs subdivision</p> <p>Decrease of property value of surrounding homes, not just the surface owners.</p>	8/20/2014 12:01:01 PM
Public	<p>Dear Ms. Housey,</p> <p>I am a home owner in the Silver Springs subdivision of Todd Creek Farms.</p> <p>My husband and I oppose the waivers being proposed by Ward Petroleum on the above listed permits. The concentration of wells and storage on the property directly behind our house as well as many others is not safe or in the benefit of residents of this community.</p> <p>Issues are :</p> <ol style="list-style-type: none"> 1. Safety:The access is very limited for fire and rescue equipment in case of a fire.There is nothing to stop a fire from endangering many lives.Although oil and gas development is beneficial to some, we protest that such an extensive facility should be built in such close proximity to family dwellings with children playing nearby. 2.Loss of property value.A loss of \$15,000.00 - \$20,000 off the value of our home is grand theft.Oil drilling activity plus the proposed storage and production facility is unsightly and directly in the line of sight from multiple homes.While the value of homes is on the rise in Colorado, our neighborhood faces a decline.That is stealing from us. 3.It is known that these homes are built on Bentonite soil.Multiple horizontal drilling and pressure changes directly under our foundations may cause movement of the soil and cause extensive damage. 4.There is direct run off from the location of the wells and production facility into Brantner irrigation water which services many farms in the Brighton area. water district 2. Pollution of this water irrigation system will have a far reaching effect. <p>The website was not allowing me to comment so Emails will follow.</p> <p>Thank you for your consideration.</p> <p>Mary M. Kettler</p> <p>Alfred D. Robinson, Jr.</p>	8/20/2014 11:53:48 AM
OGLA	<p>Corrected typo in Groundwater Section</p> <p>Groundwater is listed at 1 foot BGS. Proposed Location is not located in USFWS mapped wetland. Additional wells located in proximity to the proposed Location along with topography, indicate that groundwater is around 15 feet BGS.</p>	8/18/2014 12:08:19 PM

OGLA	Need Pipeline Information Is the construction date of 09/01/2015 correct?	8/18/2014 10:02:58 AM
Permit	SUA describes lands in metes & bounds. Req'd surface ownership map. 306.e cert. ltr. already submitted?	8/14/2014 12:24:31 PM
OGLA	The comment period for this Form 2A was extended per LGD request from 8/19/2014 to 8/29/2014	3/7/2014 3:06:03 PM
LGD	This site is served by an existing access point. No new access point is approved by this application. A Gas and Oil Drilling Rig Move permit will be required to move the drilling rig both into and out of this location. Upon completion of the well site and the related pad and facilities, an On-Site Gas and Oil Well Production Facilities Permit will be required. Please contact Mr. Mark Russell at 720-523-6821 for information regarding these permits.	3/6/2014 8:38:52 AM
Permit	Passed completeness.	7/30/2014 4:29:58 PM

Total: 14 comment(s)