

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:

400839059

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Date Received:

05/15/2015

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: 331351

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:

331351

Expiration Date:

06/18/2018

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: 10261
 Name: BAYSWATER EXPLORATION AND PRODUCTION LLC
 Address: 730 17TH ST STE 610
 City: DENVER State: CO Zip: 80202

Contact Information

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

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20080034 Gas Facility Surety ID: _____
- Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Carlson Number: 15-D Pad
 County: WELD
 Quarter: NENE Section: 15 Township: 5N Range: 65W Meridian: 6 Ground Elevation: 4621

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: 1055 feet FNL from North or South section line
 324 feet FEL from East or West section line

Latitude: 40.403696 Longitude: -104.641131

PDOP Reading: 1.4 Date of Measurement: 03/20/2015

Instrument Operator's Name: Ben Hardenbergh

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Land application

Cutting Disposal: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Cockroft Farms COGCC Facility 441086 will be used for offsite disposal.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: 441086 or Document Number: _____

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Katherine J Carlson

Phone: _____

Address: 2151 Fern Ave

Fax: _____

Address: _____

Email: _____

City: Greeley State: CO Zip: 80631

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:	351 Feet	356 Feet
Building Unit:	503 Feet	356 Feet
High Occupancy Building Unit:	4000 Feet	3912 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	212 Feet	101 Feet
Above Ground Utility:	205 Feet	92 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	234 Feet	46 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: _____
 Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 04/02/2015

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.

Please see attached siting rationale documents. The third page of this document shows 1000' radius around BUO and the flood plains and flood ways. Additionally the site has to be placed 50' north of the south property line due to a existing Greeley ROW.

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: 3 - Aquolls and Aquents, gravelly substratum
 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: 66 Feet

water well: 330 Feet

Estimated depth to ground water at Oil and Gas Location 10 Feet

Basis for depth to groundwater and sensitive area determination:

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

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.

Date of Rule 305.a.(2) notice was received on 4/23/15 for the Surface/Building Unit Owner, however, it was signed waiving the required 30-day notice period. Please see the attached letter signed by the Surface/Building Unit Owner, attached as Waivers.

Below is a list of distances from proposed facilities that are greater than existing facilities:
Building to proposed facilities is 435'
Building Unit to proposed facilities is 503'
Public Road to proposed facilities is 233'
Above Ground Utility to proposed facilities is 229'
Property line to proposed facilities is 76'

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

Signed: _____ Date: 05/15/2015 Email: regulatory@petro-fs.com
Print Name: Jeff Annable Title: Regulatory Technician

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: 6/19/2015

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>
	Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42. Please note that this notice is now required under Rule 316C.c.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<p>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.</p> <p>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.</p> <p>Operator will continue to be in close communication with Surface Owner with respect to livestock consideration and drilling rig move in date.</p> <p>A meeting with the surface owner will determine the fencing plan.</p>
2	Community Outreach and Notification	<p>Operator plans to have a neighborhood meeting to make sure that all concerns are addressed and to let owners know they can call if they have any complaints. Operator will also provide a toll-free hotline to all Building Unit Owners in the area if they have any complaints.</p>
3	Pre-Construction	<p>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.</p> <p>Identification of plugged and abandoned wells will be identified pursuant to 319.a.(5)</p>
4	Traffic control	<p>Access Road: The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times. Bayswater is utilizing the existing Access Road off of Fern Ave. to reduce the impact on the neighboring houses and lessen any construction activity. Traffic will be routed to minimize local interruption. Traffic activity concerns and routing have been noted in the Surface Damage and Release Agreement between Bayswater and the landowner. Access from the south is preferred as it is the least populated area of the surrounding neighborhood and has a direct route to business route 34 and also State Highway 34.</p>
5	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>
6	Storm Water/Erosion Control	<p>Use water bars, and other measures to prevent erosion and non-source pollution. Implement and maintain BMPs to control storm water 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).</p>
7	Material Handling and Spill Prevention	<p>Leak Detention Plan: Pumper will visit the location daily and visually inspect all wellheads 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. 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>

8	Dust control	<p>Operator shall employ practices for control of fugitive dust caused by their operations. Bayswater has agreed to apply dust control along the length of Fern avenue between 18th St. and 24th streets. 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. Bayswater additionally has implemented the use of traffic signs when leaving the location to remind drivers of specific routes to utilize. Additional management practices such as road surfacing, wind breaks and barriers, or automation of wells to reduce truck traffic may also be required if technologically feasible and economically reasonable to minimize fugitive dust emissions.</p>
9	Construction	<p>Guy line anchors: All guy line anchors shall be brightly marked pursuant to Rule 604.c. (2)Q.</p> <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>Operator anticipates a possible liquids pipeline along Fern Avenue in mid-2016 and thus truck traffic could then be at a minimum for oil hauling.</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 of a down gradient surface water feature. All berms will be visually checked periodically to ensure proper working condition.</p> <p>All equipment will be anchored to the extent necessary to resist flotation, collapse, lateral movement, or subsidence.</p> <p>Lighting: Lights on location will be installed to ensure safety around the site. Lights will have on/off capability. All lighting will be diverted downward and inward, and shielded so as to avoid glare on public roads and Building Units.</p>
10	Noise mitigation	<p>Baseline studies will be conducted prior to commencement of construction and dirt work, which includes both A and C scale measurements. A sound model will be developed with the drilling rig and completion operations noise signatures. Bayswater has recently acquired a new rig signature for the Frontier # 8 rig with hospital grade mufflers. This signature information is attached as OTHER. Various height sound walls will be engineered and installed where required and necessary. Temporary I-beams will be installed for walls 20' and higher. Sound walls themselves, a combination of STC-32 and STC-25 Acoustical Barrier Blankets, will be implemented. Both drilling and completion operations will be conducted within these sound walls. 10'-16' portable walls will be used to dampen gen-sets, if necessary, pursuant to sound model results. Additionally, sound blankets may be utilized in and around the rig floor to dampen noise from the draw works. Operator is investigating the possibility of powering the drill site by electricity.</p> <p>Operator utilizes appropriately sized sounds walls for instillation around production facility compressors to dampen noise. These walls are based on a forecasted model with the production facilities' noise signature.</p>
11	Emissions mitigation	<p>Green Completions - Emission Control System: Test separators and associated flow lines and sand traps shall be installed 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 at 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.</p> <p>Operator is working on ROW with land owners in the area to bring a new gas sales line along Fern Ave. from the north (Arellano site), as well as working with an operator of a sales line already in place. Bayswater will connect to one of these gas sales lines as soon as practical.</p>

12	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>
13	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>
14	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 weeds.
15	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: 15 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2477636	DOW CONSULT
2477637	RULE 306.E. CERTIFICATION
2477638	MULTI-WELL PLAN
400839059	FORM 2A SUBMITTED
400839812	SITING RATIONALE
400839813	NRCS MAP UNIT DESC
400840369	ACCESS ROAD MAP
400840376	HYDROLOGY MAP
400840378	LOCATION DRAWING
400840379	LOCATION PICTURES
400840407	CORRESPONDENCE
400840596	FACILITY LAYOUT DRAWING
400840597	WASTE MANAGEMENT PLAN
400842402	WAIVERS

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Complete. No public or LGD comments.	6/19/2015 3:58:07 PM
OGLA	Operator provided a revised Multi-Well Plan because they have shortened their wellbore laterals to avoid conflicting with another Operator's planned wells. Application is in compliance with Designated Setback Location Rules including notifications and meetings and BMPs sufficiently mitigate public health and safety concerns in this Buffer Zone Location. Operator has changed well bottom holes to accommodate plans from 3rd party operator, resulting in delays on related APDs, this Form 2A is ready for approval.	6/19/2015 10:21:44 AM
Permit	The Certification of Compliance with Rule 305.a Pre-Application Notice is under "OTHER'.	6/16/2015 9:29:03 AM
OGLA	CPW Consult completed and no wildlife recommendations made. Operator has provided the Rule 306.e. Certification. Public Comment period has ended. Waiting on final Buffer Zone review.	6/16/2015 9:23:42 AM
DOW	Colorado Parks Wildlife (CPW) has been notified by COGCC staff that Form 2a Document No. 400839059 and oil and gas facilities pertaining to the Carlson 15-D Pad will be located in a sensitive wildlife habitat area. Oil and gas facilities from the Carlson 15-D Pad will be located in the NE4NE4 of Section 15, T5N, R65W, Weld County. A wildlife consult with CPW was triggered due to the intersection of a 0.5 mile buffer zone around a mapped bald eagle nest in adjoining Section 14. CPW's local field officer has visited the proposed site and has confirmed that the mapped nest has been destroyed and that there are no sensitive wildlife issues that would prompt the need for a wildlife recommendation.	6/15/2015 12:25:09 PM
OGLA	IN PROCESS - Operator can't edit a 2A that has been Withdrawn. To save time with them having to re-build this 2A from scratch, the Sensitive Wildlife Habitat Consultation box was checked and the 2A returned to IN PROCESS.	5/28/2015 11:08:21 AM
OGLA	WITHDRAWN - Location is in a Sensitive Wildlife Habitat for a Bald Eagle Nest but the box wasn't checked. Spoke with Ann Stephens at PFS and they agreed to this being Withdrawn and they will correct and resubmit.	5/28/2015 9:20:48 AM
Permit	Passed completeness.	5/26/2015 11:35:15 AM
Permit	1.) Date of Rule 305.a.(2) is less than the required 1 month prior to submitting a Form 2A. If the Surface Owner has signed a waiver please attach the document to the submitted Form 2A. Returned to draft.	5/20/2015 11:19:09 AM
OGLA	Passed Buffer Zone completeness review	5/19/2015 3:38:52 PM
Permit	Within Buffer zone, sent to OGLA for further review.	5/19/2015 9:38:19 AM

Total: 11 comment(s)