

FORM
2A

Rev
04/18

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:

401394323

Date Received:

07/02/2018

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:

458074

Expiration Date:

10/16/2021

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: 10583
 Name: PETRO OPERATING COMPANY LLC
 Address: 9033 E EASTER PLACE SUITE 112
 City: CENTENNIAL State: CO Zip: 80112-2105

Contact Information

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

FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID (Rule 706): 20150075 Gas Facility Surety ID (Rule 711): _____
- Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: BEF PAD Number: 1S66W2
 County: ADAMS
 Quarter: NESE Section: 2 Township: 1S Range: 66W Meridian: 6 Ground Elevation: 5047

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: 2211 feet FSL from North or South section line
327 feet FEL from East or West section line

Latitude: 39.993010 Longitude: -104.734690

PDOP Reading: 1.5 Date of Measurement: 01/15/2018

Instrument Operator's Name: JAKE STILLE

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Kings Co, LLC

Phone: _____

Address: 9033 E. Easter Pl., Ste 112

Fax: _____

Address: _____

Email: _____

City: Centennial State: CO Zip: 80112

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:	1696 Feet	1683 Feet
Building Unit:	2108 Feet	1967 Feet
High Occupancy Building Unit:	3642 Feet	3833 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	1285 Feet	1288 Feet
Above Ground Utility:	823 Feet	927 Feet
Railroad:	3556 Feet	3574 Feet
Property Line:	143 Feet	30 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

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: _____

- 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.

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: VoB, Vona sandy loam, 1 to 3 percent slopes

NRCS Map Unit Name: AsB, Ascalon sandy loam, 0 to 3 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: _____ 0 Feet

water well: _____ 252 Feet

Estimated depth to ground water at Oil and Gas Location _____ 17 Feet

Basis for depth to groundwater and sensitive area determination:

Due to proximity to a pond, ditches and canal this is a sensitive area.
 Distance to nearest:
 1. Downgradient surface water feature: 0' within the Location;
 2. Water well Permit #295123 which is a Monitoring well, aprx 252' NE from nearest planned Well which is the BEF East 48, with a depth of 55', and perforated at 40'.
 3. Estimated depth to groundwater is estimated at 17', which is the depth of the shallowest water well within a 1 mile radius.

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 tab reference point is the BEF WEST 1 well.
This is planned to be a 48 well pad with an adjacent production facility servicing all 48 wells, 24 of which are being submitted initially, which are 1 mile laterals going west.
The remaining 24 wells will go east and will be planned as 2 mile laterals, the Form 2's for them will be submitted at a later date.

Distance to the nearest property line is 143 feet measured from the western wells to the western property line. This adjacent property is also owned by the Surface Owner, Kings Co, LLC. The waiver for Offset Surface Owner is included in the attached SUA and is signed by the Surface/Offset Surface Owner.

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

Signed: _____ Date: 07/02/2018 Email: paul.gottlob@iptenergyservices.com

Print Name: PAUL GOTTLLOB 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: 10/17/2018

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.

COA Type

Description

	A surface water feature transects the Location. Operator shall use Best Management Practices to minimize the potential for contaminant/sediment migration into the surrounding water features and to ensure the Location does not impeded the natural flow of surface water. Operator concurrence - 10/02/2018
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Best Management Practices

No	BMP/COA Type	Description
1	Planning	604.c(2)M: Fencing: A meeting with the surface owner will determine a fencing plan. The location will be adequately fenced to restrict access by unauthorized persons.
2	Planning	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	Backup stabbing valves will 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	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	Operator continues to work with the City of Brighton to consider additional BMP's to limit impacts on surrounding area. If additional measures are agreed and enforceable by the State they will be added to this permit via sundry or 2A Amendment.
6	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. During construction and through the life of this location, Operator will utilize watering, via water trucks, to control fugitive dust. Additionally, the access road will be constructed with aggregate road base material and vehicle speeds will be limited to ten miles per hour to reduce dust.
7	Traffic control	Operator has submitted a City of Brighton MOU Application in which the designated traffic flow has been determined.
8	General Housekeeping	804: Visual Impacts: All long term facility structures will be painted a color that enables the facilities to blend in with the natural background color of the landscape, as seen from a viewing distance and location typically used by the public
9	General Housekeeping	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.
10	General Housekeeping	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.
11	Storm Water/Erosion Control	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). Location will be covered under Petro Operating Co's field wide permit, permit number COR03 XXXX in process. Storm Water/Erosion Control. 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). Location will be covered under Petro Operating, LLC field wide permit. Typical stormwater BMPs installed include a silt fencing, diversion ditch, vehicle tracking pads and berm with sediment traps.
12	Material Handling and Spill Prevention	Leak Detection Plan: Operator will monitor production facilities weekly at a minimum to a maximum of daily to identify fluid leaks, including, but not limited to, visually inspecting all wellheads, tanks and fittings. Annual flowline testing will also occur according to COGCC rules 1101 and 1102. Inspection and record retention of flowline testing will be in accordance per COGCC regulation. All records will be made available to the COGCC upon to request.
13	Material Handling and Spill Prevention	Tank Specifications: Tanks will be designed, constructed and maintained in accordance with NFPA Code 30 (2008 version). All tanks are visually inspected by the operator weekly at a minimum to a maximum of daily. All records will be made available to the COGCC upon to request.

14	Dust control	805.c. 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.
15	Construction	803. Permanent lighting will be installed around the facility to allow both the operator and haulers to conduct safe operations at night. All lights will be directed down toward the location or shielded so no light pollution leaves the facility.
16	Construction	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.
17	Construction	This will be a multi-well pad, located in a manner which allows for the greatest distances possible from building units.
18	Noise mitigation	Sound walls will be installed on all sides of the pad perimeter during drilling and completion operations.
19	Emissions mitigation	Operator will bring a new or expand existing gas sales lines, in a timely manner, to send salable quality gas immediately down the sales line. The sales lines will be in place prior to first production. The sales lines will decrease the potential emission sources on the location.
20	Emissions mitigation	Green Completions -Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b.(3)C.
21	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. Water based drilling fluids will be used during drilling operations which will limit the odor associated with development. Note: If plans change and oil based fluids are used the operator will submit a sundry ad address additional odor concerns.
22	Drilling/Completion Operations	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. Identification of plugged and abandoned wells will be identified pursuant to 319.a.(5)
23	Drilling/Completion Operations	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
24	Interim Reclamation	Operator shall be responsible for segregating the topsoil, backfilling, re-compacting, reseeding, and re-contouring 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.

Total: 24 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401394323	FORM 2A SUBMITTED
401394595	NRCS MAP UNIT DESC
401394596	NRCS MAP UNIT DESC
401394605	WASTE MANAGEMENT PLAN
401555829	ACCESS ROAD MAP
401555836	LOCATION DRAWING
401555837	LOCATION PICTURES
401555838	MULTI-WELL PLAN
401555841	SURFACE AGRMT/SURETY
401676132	RULE 305A CERTIFICATION OF COMPLIANCE
401676139	HYDROLOGY MAP
401710940	FACILITY LAYOUT DRAWING
401710942	OTHER

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	The following changes were made with Operator concurrence: - corrected "Date Planned to commence construction" to "10/20/2018"	10/16/2018
OGLA	Per Operator concurrence, changed Future Land Use to Residential.	10/03/2018
OGLA	October 3, 2018 COGCC had a discussion with the Operator regarding plans for their drilling schedule and the potential need for future refile APDs. COGCC informed the operator that it was contacted by the City of Brighton with concerns about planned development that would place residences close to the Oil and Gas Location before all wells are drilled. Operator conveyed that the plans are for all homes to be greater than 500' from planned wells. COGCC discussed with operator that if an APD expires prior to drilling a well, that the refile application is considered a new application that shall comply with the current rules, setback distances, and required mitigation measures at the time the permit is filed. 10/03/2018: 3:30 pm	10/03/2018

OGLA	<p>- Per Operator request, added the following comment to the Submit Tab: "Distance to the nearest property line is 143 feet measured from the western wells to the western property line. This adjacent property is also owned by the Surface Owner, Kings Co, LLC. The waiver for Offset Surface Owner is included in the attached SUA and is signed by the Surface/Offset Surface Owner."</p> <p>- NRCS Map Unit Description overlay on the COGIS Map has AsB, Ascalon sandy loam, 1 to 3 percent slopes, which is incorrect. Operator is correct.</p> <p>- Changed the distance to the nearest surface water feature to 0 feet as there is a ditch transecting the Location as shown on the Hydrology Map submitted by the Operator. Modified the Basis Statetment to "1. Downgradient surface water feature: 0' within the Location"</p> <p>- Unchecked the State box for floodplains as the COGIS Floodplain overlay is the Federal FEMA Map.</p> <p>- Removed the following as they do not pertain to a COGCC Form 2A: "and annual SPCC inspections will be conducted and documented. Inspection and record retention of tank inspections will be in accordance per SPCC regulation." "Additionally, annual SPCC inspections will be conducted and documented."</p> <p>- Moved the Following from the BMP List to the Submit Tab: "Petro Operating has submitted and received approval of a detailed SWMP to the City of Brighton as part of the approved MOU."</p> <p>- Removed BMP citations for Designated Setback Locations as the Location does not lies within a Designated Setback Location.</p> <p>- Modified the Green Completions BMP to the following: "Green Completions -Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b.(3)C."</p> <p>- Removed all superfluous BMPs.</p> <p>Operator concurrence - 10/02/2018</p>	10/02/2018
Permit	Initial permitting review complete and task passed.	10/01/2018
Engineer	pushed to ON HOLD - inconsistency in distance for wellhead to property line between 2A and APDs	08/26/2018
Permit	Passed Completeness.	07/26/2018
Permit	returned to draft at request of operator	07/03/2018

Total: 8 comment(s)