

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:

400673236

(SUBMITTED)

Date Received:

10/09/2014

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:

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: 26580

Name: BURLINGTON RESOURCES OIL & GAS LP

Address: PO BOX 4289

City: FARMINGTON State: NM Zip: 87499

Contact Information

Name: Savage Ali

Phone: (281) 206-5359

Fax: (281) 647-1935

email: Ali.Savage@conocophillips.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 19920030

☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: B&D Land 4-64 4

Number: 1H

County: ARAPAHOE

QuarterQuarter: SESE Section: 4 Township: 4S Range: 64W Meridian: 6 Ground Elevation: 5618

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: 810 feet FSL from North or South section line

350 feet FEL from East or West section line

Latitude: 39.726694 Longitude: -104.547081

PDOP Reading: 1.7 Date of Measurement: 05/29/2014

Instrument Operator's Name: Darren Shanks

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 #

FACILITIES

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

Wells	2	Oil Tanks*	6	Condensate Tanks*		Water Tanks*	2	Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks	2	Separators*	2	Injection Pumps*		Cavity Pumps*		Gas Compressors*	1
Gas or Diesel Motors*		Electric Motors		Electric Generators*		Fuel Tanks*		LACT Unit*	2
Dehydrator Units*	2	Vapor Recovery Unit*	2	VOC Combustor*	2	Flare*	2	Pigging Station*	

OTHER FACILITIES*

Other Facility Type

Number

Production Skid	1
Switch Rack	1

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

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

Future pipelines will consist of:

4 inch Carbon Steel Gas pipeline
4 inch Carbon Steel Oil pipeline
4.5 inch Fiberspar Water pipeline

The equipment indicated above may be installed for future use.

CONSTRUCTION

Date planned to commence construction: 03/20/2015

Size of disturbed area during construction in acres: 5.58

Estimated date that interim reclamation will begin: 04/20/2015

Size of location after interim reclamation in acres: 4.88

Estimated post-construction ground elevation: 5617

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

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? Yes

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Drilling cuttings will be taken by a certified transport company and disposed of at a certified disposal facility.

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: B&D Land Company 600 LLC.

Phone: _____

Address: P.O. Box 210

Fax: _____

Address: _____

Email: _____

City: Kiowa State: CO Zip: 80117-021

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:	840 Feet	510 Feet
Building Unit:	944 Feet	608 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	797 Feet	577 Feet
Above Ground Utility:	325 Feet	100 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	350 Feet	125 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: 08/27/2014

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 (onl 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.

As the construction documents show, the ability to safely place facilities on the cut side of the location was a better and more stable location than the fill side.

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: Nunn-Bresser-Ascalon complex, 0 to 3 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:

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:

water well:

Estimated depth to ground water at Oil and Gas Location

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 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

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: Drilling cuttings will be taken by a certified transport company and disposed of at a certified disposal facility.

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

Signed: _____ Date: 10/09/2014 Email: Justin.Carlile@conocophillips.com

Print Name: Justin Carlile Title: Regulatory Specialist

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.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	Whenever appropriate, Burlington uses multi-well pads. Multi-well production facilities will be located as far as possible from building units.
2	Traffic control	Water Supply and Quality. In an effort to reduce truck traffic, where feasible, the Operator will identify a water source lawfully available for industrial use, including oil and gas development, close to the facility location, to be utilized by Operator and its suppliers. Operator will comply with the Colorado Department of Public Health and Environment requirements concerning water quality. Where feasible, temporary surface water lines are encouraged and will be utilized.
3	Material Handling and Spill Prevention	Berms shall be inspected by Operator on a weekly basis for evidence of discharge. Berms shall be inspected within 48 hours of a precipitation event. Berms will be constructed around crude oil, condensate, and produced water storage tanks and will enclose an area sufficient to contain and provide secondary containment for 150% of the largest single tank. Berms will be sufficiently impervious to contain any spilled or released material. No potential ignition sources will be installed inside the secondary containment area unless the containment area encloses a fired vessel.
4	Noise mitigation	If the maximum permissible noise levels are exceeded, mitigation measures may include, but are not limited to: adjustment in the placement of the noise generating equipment, installation of noise reducing equipment, or the use of sound barriers such as sound walls.

5	Drilling/Completion Operations	Water Storage Pits to Contain Fresh Water or Brine Water: Water stored in pits approved by the County and allowed under Commission Rules, must meet the definition of fresh water or brine water, except for water stored in pits listed in 2c below. Fresh water is defined as containing total dissolved solids (TDS) less than or equal to 5,000 milligrams/liter (mg/l). Brine water is defined as water produced from an oil and/or gas well with TDS of greater than 5,000 mg/l. The Operator is required to remove all free and visible oil within 24 hours of discovery. Upon closure of the pit, the Operator will ensure the protection of the public health and environment by following all Commission pit closure rules, including collecting analytical data to ensure compliance with state standards. As long as the pit is open and containing fluid, a representative water sample shall be taken every six months from the surface of the pit fluids, the first sample to be taken within 6 months of the pit becoming operational. Water quality data will also include an analysis of Sodium Adsorption Ratio (SAR). The County will review water quality data provided by the Operator every six (6) months. TDS, pH, and specific conductance can be measured with a field meter. TEPH (total extractable petroleum hydrocarbons), BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes), and SAR will be analyzed by an accredited laboratory. If the presence of TEPH and/or BTEX is indicated after County review and/or inspection, other water quality analyses may be required by the County.
6	Drilling/Completion Operations	Additional Pits that Require County Review and Approval: Skimming, settling, percolation, evaporation, and any type of netted pits are generally discouraged by the County; however such pits may be approved on a case-by-case basis through the Use by Special Review ("USR") process. A copy of the Pit Plan submitted to the Commission will be provided to the County at the same time as the plans are submitted to the Commission. Construction of these pits will be preceded by collection of "baseline" soil samples from the center of the planned pit at 6 and 18 inches depth. Soil samples will be analyzed for pH, Sodium Adsorption Ratio (SAR), and Electrical Conductivity (EC). The Operator shall stake and photograph from the center of the planned pit (toward north, south, east, and west directions) for inclusion in the County's copy of the Pit Plan. Upon closure of these pits, pH, SAR, EC, BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes), and TEPH (total extractable petroleum hydrocarbons) analyses may be required if there is evidence of leaks or spills in the immediate area of the pits.
7	Drilling/Completion Operations	Pits That Do Not Require County Approval: Flare, Emergency, Plugging, and Workover pits will not require county review or approval prior to construction (unless within 1/4 mile of a residence as set forth below); however, the County will be copied on the notification(s) sent to the Commission and any pit plans, remediation plans, or analytical results submitted to the Commission.
8	Drilling/Completion Operations	Pit Setbacks: All pit construction within ¼ mile of a residence or water well is generally discouraged by the County and may have additional County requirements, such as fencing. Such pits will be reviewed on a case-by-case basis by the County.
9	Drilling/Completion Operations	Multi-Well Pits: In addition to any requirements stated above, multi-well pits will be lined per the Commission's lining standards. If a multi-well pit is planned for use over a 2-year or greater period, the pit will be double-lined with leak detection. Fluids stored in multi-well pits will be circulated through a four-phase separator or an API-approved settling tank or similar equipment prior to such fluids entering the pit, specifically designed to remove solids and reduce hydrocarbon content and emissions. Retention time in a settling tank and the volume of the tank must be sufficient to separate out any floating, dissolved, or emulsified hydrocarbon phases. Lined multi-well pits may be inspected and/or reviewed on an as-needed basis, over the life of the pit, to determine if the water to be stored in the pit or already stored in the pit meets the definition of fresh water or brine water. Upon closure of the pit, the Operator will ensure the protection of the public health and environment by following all Commission pit closure rules, including collecting analytical data to ensure compliance with state standards. As long as the pit is open and containing fluid, a representative water sample shall be taken from the surface of the pit every six months. Additional requirements, such as fencing, may be required by the County, pre- or post-construction, if such a pit is determined by the County to be adversely impacting residences, water wells, or wildlife habitats and migrations.

10	Drilling/Completion Operations	Preferred Option: It is the intent of the County that operators utilize closed-loop or modified closed-loop systems for drilling and completion operations in order to minimize or eliminate the need for earthen pits; however, notwithstanding the foregoing, where appropriate, and subject to prior County approval, the County generally supports: 1) the use of unlined drilling pits when bentonite or a similar clay additive is used during the drilling process, and 2) the use of lined single- or multi-well water storage pits in order to minimize the transport of water and promote recycling, subject to the requirements set forth in this subsection. Permitted modified closed-loop systems include oil and gas wells where air or fresh water is used to drill through the surface casing interval, defined as fifty (50) feet below the depth of the deepest aquifer, and a closed loop system is used for the remainder of the drilling and/or completion or recompletion procedures. Multi-well pits are defined as lined, engineered pits, constructed over an engineered base, with construction or liner specifications meeting or exceeding Commission pit lining rules, that will serve the functions of drilling, completion, and/or flowback pits for more than one well.
11	Drilling/Completion Operations	A closed loop drilling system will be used. Only a reserve pit and/or emergency pit will be used as needed. A fresh water pit will not be used without the prior approval of a Form 15.
12	Drilling/Completion Operations	There are no existing wells within 1 mile of the proposed location. The propane tanks are sized appropriately for either the VCU or the combustor/flares. Locations manned 24 hours a day and part of their routine is to check propane tanks as well as visually monitor the combustion.
13	Planning	Whenever appropriate, Burlington uses multi-well pads. Multi-well production facilities will be located as far as possible from building units. Pads will have all all weather access roads.
14	Emissions mitigation	The leak detection plan for permanent facilities is attached. Burlington follows CDPHE LDAR and STEM rules established in Reg 7.
15	Drilling/Completion Operations	BOPE will consist of a double ram with blind ram and pipe ram, annular preventor, and a rotating head. Upon initial rig-up and at least once every 30 days during drilling operations thereafter, pressure testing of the casing string and each component of the BOPE including flange connections shall be performed to 70% of working pressure or 70% of the internal yield of casing, whichever is less. Pressure testing will be conducted and the documented results shall be retained for a period of 1 year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.
16	Planning	Unless otherwise requested by the Surface Owner, well sites will be adequately fenced to restrict access by unauthorized persons.
17	Material Handling and Spill Prevention	Any material not in use that might constitute a fire hazard will be a minimum of 25 feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area will comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.
18	Drilling/Completion Operations	All loadlines will be bullplugged or capped.
19	General Housekeeping	All surface trash, debris, scrap or discarded material will be removed daily or weekly as necessary and in a legal manner.
20	Construction	Any guy line anchors left buried for future use will be identified by a marker of bright color at least 4 feet in height and not greater than 1 foot east of the guy line anchor.
21	Construction	All leasehold roads will be constructed to accomodate local emergency vehicle access requirements and maintained in good condition.
22	Construction	All newly installed or replaced crude oil and condensate storage tanks will be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). Written records will be maintained verifying proper design, construction, and maintenance, and these records will be available for inspection.

Total: 22 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400673236	FORM 2A SUBMITTED
400704268	NRCS MAP UNIT DESC
400704271	FACILITY LAYOUT DRAWING
400704678	ACCESS ROAD MAP
400704679	CONST. LAYOUT DRAWINGS
400704680	HYDROLOGY MAP
400704681	LOCATION DRAWING
400704683	LOCATION PICTURES
400704684	MULTI-WELL PLAN
400704685	REFERENCE AREA PICTURES
400704686	REFERENCE AREA MAP
400704687	WAIVERS
400704689	OTHER

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Returned to draft for reasons outlined in OGLA review.	10/10/2014 11:01:53 AM
OGLA	Buffer Zone completeness check identified the following issues: Certification of 305.a.(2) not attached. Certify that all Surface Owners and Building Unit owners in Buffer Zone either waived Rule 305 requirements or received notice. Rules 305 and 306 still apply unless waivers given by all Building Unit and Surface Owners within Buffer Zone. Rule 604.c.(2) Mitigation Measures are required on form, 604.c.(2)Ei explanation does not discuss availability of alternative sitings and rational for not chosing alternative sitings if available.	10/10/2014 10:16:15 AM
Permit	Within buffer zone, sent to OGLA for further review.	10/10/2014 8:31:38 AM

Total: 3 comment(s)