

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:

401604155

Date Received:

05/22/2018

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:

457653

Expiration Date:

09/26/2021

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: 100322
 Name: NOBLE ENERGY INC
 Address: 1001 NOBLE ENERGY WAY
 City: HOUSTON State: TX Zip: 77070

Contact Information

Name: Brittany McFadden
 Phone: (281) 943-1940
 Fax: ()
 email: brittany.mcfadden@nblenergy.com

FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID (Rule 706): 20030009 Gas Facility Surety ID (Rule 711): _____
- Waste Management Surety ID (Rule 704): _____

LOCATION IDENTIFICATION

Name: D Number: 29-20 Pad
 County: WELD
 Quarter: SWNW Section: 29 Township: 3N Range: 64W Meridian: 6 Ground Elevation: 4785

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: 2356 feet FNL from North or South section line
935 feet FWL from East or West section line

Latitude: 40.197020 Longitude: -104.581230

PDOP Reading: 1.2 Date of Measurement: 02/21/2018

Instrument Operator's Name: Jason Dow-Pererson

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 #**

Well Site is served by Production Facilities

 401621680

FACILITIES

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

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

OTHER FACILITIES*

Other Facility Type

Number

Other Facility Type	Number

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:

6: 2-4" Steel Three Phase Flowlines
7: 2-4" Steel Gas Lift Line
3: 3-8" Poly Temporary lines for fresh water

CONSTRUCTION

Date planned to commence construction: 09/28/2018 Size of disturbed area during construction in acres: 11.00

Estimated date that interim reclamation will begin: 03/28/2019 Size of location after interim reclamation in acres: 1.60

Estimated post-construction ground elevation: 4785

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: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Drilling waste disposal information added to address non-oil based mud and fluids used in non-producing portion of wellbore.

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: Guttersen Ranches, LLC

Phone: _____

Address: P.O. Box 33709

Fax: _____

Address: _____

Email: _____

City: Greeley State: CO Zip: 80633

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: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

Date of Rule 306 surface owner consultation 01/08/2018

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:	3564 Feet	_____ Feet
Building Unit:	5280 Feet	_____ Feet
High Occupancy Building Unit:	5280 Feet	_____ Feet
Designated Outside Activity Area:	5280 Feet	_____ Feet
Public Road:	5280 Feet	_____ Feet
Above Ground Utility:	2866 Feet	_____ Feet
Railroad:	5280 Feet	_____ Feet
Property Line:	935 Feet	_____ 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 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: 19-Colombo Clay Loam, 0-1% slope _____

NRCS Map Unit Name: 70 - Valent Sand, 3-9% slope _____

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: 01/08/2018

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: 643 Feet

water well: 5186 Feet

Estimated depth to ground water at Oil and Gas Location 14 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

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

Noble respectfully submits this location assessment application which consists of 6 wells. Spill Prevention Control and Countermeasures (SPCC) plans are in place to address any possible spill associated with Oil & Gas operations throughout the state of Colorado in accordance with CFR 112.

SENSITIVE AREA DETERMINATION:

Basis for Sensitive Area Determination:

The two closest wells with notable static water level readings (Permit 7065-R, Permit 22932-A) have a depth to ground water (static water level) of less than 25 feet (12' 16' depths). According to the FEMA 2016 100-year floodplain map, the location of the well pad is in mapped floodplain.

Nearest Down-gradient surface water: Hydrology Map indicates no visible surface water within 1,000 feet; a dry swale located approximately 417 feet, 522 feet west, 521 feet north of the edge of disturbance (field confirmed). Biological Resources Surveys report one waterbody (dry creek bed with OHWM) located approximately 482 feet northwest of the edge of disturbance; wetlands located approximately 433 feet northwest and 519 feet north of the edge of disturbance (field confirmed).

Nearest Domestic Water Well (permit number and distance from location): Permit 1819 is a domestic well located approximately 5,186 feet west of the edge of disturbance.

Estimated depth to ground water at Oil and Gas Location (provide explanation): Permit 7065-R is the closest water well and best indication of depth to ground water (static water level). Permit 7065-R has a depth of 12 feet and is located approximately 2,231 feet northeast of the edge of disturbance. The average depth of the two closest water wells is 14 feet.

ADDITIONAL COMMENTS:

- Location is within the COGCC rules 318A. (GWA)

- o A dear director letter will be required with the Form 2 applications to apply under the COGCC rules of 318A.a and 318A.c

- Location is within a FEMA defined 100-year Floodplain.

- o Noble has applied for the Floodplain Development Permit (FHDP) permit with Weld County

- Cultural Measurements were measured from the nearest proposed well as NBL intends to P&A the existing Kate Red D29-5 (05-123-17015) prior to construction.

- There are no Building Units within 1,000' of the Oil and Gas location and therefore a Facility Layout drawing and Rule 305.a.(2) certification has not been provided with the submittal of this application

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

Signed: _____ Date: 05/22/2018 Email: brittany.mcfadden@nblenergy.com

Print Name: Brittany McFadden Title: Regulatory Analyst

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 9/27/2018

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.

<u>COA Type</u>	<u>Description</u>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	BASELINE SAMPLING & MONITORING: Initial baseline samples and a subsequent monitoring sample shall be collected pursuant with the Rules unless excepted typically from one (1) Available Water Source in the governmental quarter section in which a new Oil and Gas Well, the first well on a Multi-Well Site, or a Dedicated Injection Well is located. If a sampling location has previously been established within the governmental quarter section, and sampled within the prior sixty (60) months before spudding, no initial baseline sample is required. Except as provided in subpart (4)B.i, of the Rules, initial sampling shall be conducted within 12 months prior to setting conductor pipe in an Oil and Gas Well or the first well on a Multi-Well Site, or commencement of drilling a Dedicated Injection Well. One subsequent sampling event shall be conducted at the initial (or previously established) sample location between six (6) and twelve (12) months following completion of the Well or Dedicated Injection Well, or the last Well on a Multi-Well Site. Wells that are drilled and abandoned without ever producing hydrocarbons are exempt from subsequent monitoring sampling under this subpart (4)D.ii.
2	Planning	FLOODPLAIN: Noble has applied for the Floodplain Development Permit (FHDP) permit with Weld County. The D29-20 well pad lies within the FEMA 100-year floodplain delineation. The pad will incorporate drainage and hydrologic considerations during design and construction with wellheads and flowlines oriented parallel with floodwater flow and automation for immediate, remote shut in capabilities. Structural guards/barriers will be installed upstream of wellheads to deflect flood debris, vulnerable slopes will be stabilized, and access road lengths will be minimized. Automated wells can be shut in from the main plc at the facility or remotely from the occ which is manned 24 hours.
3	General Housekeeping	Housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, suitable facilities. If spills occur prompt cleanup is required to minimize any commingling of waste materials with stormwater runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Drip pans will be used during routine fueling and maintenance to contain spills or leaks. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup of trash and discarded materials will be conducted at the end of each work day. Cleanup will consist of patrolling the roadway, access areas, and other work areas to pickup trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly.

4	Storm Water/Erosion Control	Stormwater management plans (SWMP) are in place to address construction, drilling, and operations associated with Oil & Gas development throughout the state of Colorado in accordance with Colorado Department of Public Health and Environment (CDPHE) and General Permit No.'s: COR03N578; COR03N579; COR03N580; and COR03O059. The bases for the Sensitive Area Determination for D29-20 is the presence of shallow groundwater and the location is within a mapped floodplain. Shallow groundwater was observed in two wells approximately 0.4 miles from the site. At this distance, stormwater from the site is unlikely to have negative impacts on the shallow groundwater identified; however, Noble will implement stormwater BMPs to minimize erosion and transportation of sediment off-site. The D29-20 pad is within the FEMA-mapped floodplain; however, there is no visible surface water within 1,000 feet. The planned stormwater BMPs include stabilizing soil stockpiles with tracking and/or hydromulch; the use of stormwater diversions such as ditches; and BMPs that will slow stormwater runoff and settle out sediment, such as sediment traps and ripping. However, BMPs may be changed or modified during or after pad construction, as needed
5	Dust control	Noble 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, or automation of wells to reduce truck traffic may also be used if technologically feasible and economically reasonable to minimize fugitive dust emissions.

Total: 5 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401604155	FORM 2A SUBMITTED
401636400	ACCESS ROAD MAP
401636406	LOCATION DRAWING
401636408	LOCATION PICTURES
401636411	MULTI-WELL PLAN
401636422	HYDROLOGY MAP
401636425	NRCS MAP UNIT DESC
401636432	WASTE MANAGEMENT PLAN
401636436	REFERENCE AREA MAP
401636439	SURFACE AGRMT/SURETY

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Operator provided information on automated shut-off for wells in the floodplain. This is not a designated setback location. Operator concurred with changing distance to surface water. Water well distance listed is domestic well, stock well is closer at 2699 feet other water well 22932 is no longer active. OGLA review complete and task passed.	09/12/2018
Permit	in process - With operators concurrence changed right to construct to SUA. Permitting Review Complete. Final Review Completed	09/11/2018
OGLA	OGLA review: Building to the southwest - cannot identify, wetlands or nearest surface water body is 433 feet to the northwest by the comments and hydrology map, Comment regarding the abandonment of API 05-123-17015, but not 05-123-34500, which is in the same area, Location is in a flood plain - need BMP for 603.h. (1).B.	09/04/2018
Permit	pending - requested new construction and interim rec date. With operators concurrence changed construction and interim rec date. pending - requesting confirmation of right to construct.	09/04/2018
Permit	Passed completeness.	06/04/2018
Permit	Returned to Draft per operator request.	05/23/2018

Total: 6 comment(s)