

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:

401095019

Date Received:

11/10/2016

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:

**449326**

Expiration Date:

**02/24/2020**

☒ 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: 1625 BROADWAY STE 2200

City: DENVER State: CO Zip: 80202

Contact Information

Name: Justin Garrett

Phone: (303) 228 4449

Fax: ( )

email: Justin.Garrett@nbleenergy.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20030009 ☐ Gas Facility Surety ID: \_\_\_\_\_

☐ Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: K06-09 Number: Pad

County: WELD

QuarterQuarter: NESE Section: 6 Township: 4N Range: 66W Meridian: 6 Ground Elevation: 4705

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: 1466 feet FSL from North or South section line

231 feet FEL from East or West section line

Latitude: 40.338170 Longitude: -104.812920

PDOP Reading: 1.9 Date of Measurement: 04/28/2016

Instrument Operator's Name: Brian Rottinghaus

## 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

437479

## FACILITIES

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

Wells <u>4</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>      </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

\*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:

Four (4) 2"-4" Steel Three-Phase Flowlines; One (1) Temporary 12" poly line for fresh water

## CONSTRUCTION

Date planned to commence construction: 01/05/2018 Size of disturbed area during construction in acres: 5.20

Estimated date that interim reclamation will begin: 06/05/2018 Size of location after interim reclamation in acres: 2.10

Estimated post-construction ground elevation: 4705

## DRILLING PROGRAM

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

Is H<sub>2</sub>S 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:

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: Doug L. Kammerzell

Phone:

Address: 12423 State Highway 60

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Milliken State: CO Zip: 80543

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 04/13/2016

### 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:	1994 Feet	Feet
Building Unit:	2064 Feet	Feet
High Occupancy Building Unit:	5280 Feet	Feet
Designated Outside Activity Area:	5280 Feet	Feet
Public Road:	2731 Feet	Feet
Above Ground Utility:	1241 Feet	Feet
Railroad:	3024 Feet	Feet
Property Line:	231 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

- 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.

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: \_\_\_\_\_

## 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: 3: Aquolls and Aquents 0-3%

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: \_\_\_\_\_ 45 Feet

water well: \_\_\_\_\_ 660 Feet

Estimated depth to ground water at Oil and Gas Location \_\_\_\_\_ 21 Feet

Basis for depth to groundwater and sensitive area determination:

Estimated depth to groundwater of 21', proximity to surface water, ditch and Big Thompson River, and located in FEMA mapped 100-yr floodplain.  
Water well permit #14256-R is 660' SW

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 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 is a four-well pad consisting of the proposed Blackburn K06-630 (Doc #401094211) (Ref. Well), Blackburn K06-625 (Doc #401094207), Blackburn K06-620 (Doc #401094199), & Blackburn K06-615 (Doc #401094194). Wells will produce at the existing Shale K08-69HN (Loc ID 437479).  
The irrigation pond to the SW corner of the disturbance area will have the Eastern portion filled in and the Western portion will be deepened and constructed so the Landowner can still use it.  
Exception Location Waiver language is included in attached SUA (Page 4, Section 6.A).

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

Signed: \_\_\_\_\_ Date: 11/10/2016 Email: RegulatoryNotification@nblenergy.com

Print Name: Justin Garrett 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: Matthew Lee Director of COGCC Date: 2/25/2017

## 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

	The Approved Form 2A permit will be posted at the location during construction, drilling, and completions operations.
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## Best Management Practices

No	BMP/COA Type	Description
1	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.
2	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) General Permit No. COR- 038637. BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. BMP's used will vary according to the location, and will remain in place and maintained until the pad reaches final reclamation.
3	Storm Water/Erosion Control	<p>603.h. -1) Noble will provide the COGCC with a floodplain location list with equipment inventory. Inventory includes;</p> <ul style="list-style-type: none"> <li>· Name of Wells with API,</li> <li>· Number of oil and produced water tanks, and</li> <li>· Number of separators.</li> </ul> <p>2) Noble has a Floodplain Plan describing how wells will be shut in during flood. The Plan includes what events trigger activation and will be available to COGCC upon request. An automation system that can turn things off without having to send a lease operator to the location.</p> <p>3) Tanks (including partially buried) and separators will be anchored to the ground. Anchors will be engineered to resist flotation, collapse, lateral movement, or subsidence of tanks and separators.</p> <p>4) Steel berms or another engineered technology that provides equivalent protection from floodwaters and debris will be installed around tanks.</p> <p>Alternative protection examples include;</p> <ul style="list-style-type: none"> <li>· Barriers/Jersey Barriers,</li> <li>· Structural fencing,</li> <li>· Bollards aligned with stream flow,</li> <li>· Poured concrete, and</li> <li>· Diversion piping.</li> </ul>
4	Material Handling and Spill Prevention	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.
5	Construction	The irrigation pond to the SW corner of the disturbance area will have the Eastern portion filled in and the Western portion will be deepened and constructed so the Landowner can still use it.

Total: 5 comment(s)

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401095019	FORM 2A SUBMITTED
401144885	ACCESS ROAD MAP
401144886	HYDROLOGY MAP
401144888	LOCATION DRAWING
401144889	LOCATION PICTURES
401144895	MULTI-WELL PLAN
401144896	NRCS MAP UNIT DESC
401144901	SURFACE AGRMT/SURETY
401144903	WASTE MANAGEMENT PLAN

Total Attach: 9 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	02/24/2017
Permit	Permitting Review Complete.	02/23/2017
OGLA	Operator responded that location is O&G lease and the SUA is for reference. LGD commented on County requirements and Operator is aware of CPW concerns. No other public comments were made; OGLA review complete and task passed.	01/25/2017
OGLA	Add automated system shutoff to floodplain BMP. Check with Operator on right to construct with fee and O&G lease and SUA attached.	01/25/2017
OGLA	Operator responded to email: For surface water discrepancy between hydrology map and water resource section on the 2A: "The surface water shown 0' on the hydrology map is not downgradient from the location. The low areas within the disturbed area are vegetated upland swales. The isolated pond in the SW corner of the pad will be dredged for depth and partially filled to accommodate the surface disturbance. Stormwater BMPs will direct water away from this corner of the pad as well as other water conveyances." Added water well info to water resources section - Permit #14256-R, 660' SW Added Floodplain BMPs to Operator section. CPW comment: Noble is working with CPW staff for additional eagle nest location detail in order to determine what mitigation we need to implement.	01/20/2017
OGLA	Email Operator to see if they had responses - responded with "working on it"	01/17/2017
OGLA	Email to Operator from CPW on 12/6/2016 regarding Bald Eagles nest identified within a 1/2 mile of the location. OGLA review- large DA and interim rec for 4 wells, distance to surfacewater and water well does not match hydrology map. Location is within floodplain and no BMPs for rule 603.f,h, 908.b(7)B, 1003.d(1), or 1204.a.(4). Send Operator email requesting additional information.	12/15/2016
LGD	This proposed oil and gas facility is located in unincorporated Weld County. As of today's date, December 2, 2016, the Weld County Oil and Gas Liaison/LGD has not been contacted by any nearby resident(s) or governmental jurisdiction(s) regarding this proposed location. The County will respond to legitimate concerns or issues regarding a proposed location and attempt to facilitate a solution with the operator. The COGCC Form 2A for this location was submitted on or before February 1, 2017 and is considered a Use by Right in the Agricultural Zoned District and no Weld County Oil Gas Location Assessment is required. A building permit is required for the production facilities (tank battery, separators, pump jacks, compressors, generators, etc.) from the Department of Planning Services. Access points from a County road require an Access Permit from the Department of Public Works, which includes any necessary traffic control plans and Improvement Agreements. The use of a right-of-way requires a Right-Of-Way Permit from the Department of Public Works. Troy Swain, Weld Oil Gas Liaison (970) 400-3579.	12/02/2016
Permit	Passed completeness.	11/15/2016

Total: 9 comment(s)