

FORM
2

Rev
05/22

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:

402874099

Date Received:

03/31/2023

APPLICATION FOR PERMIT TO

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

Amend ☐

TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____

Refill ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: Foose State

Well Number: A17-675

Name of Operator: NOBLE ENERGY INC

COGCC Operator Number: 100322

Address: 2001 16TH STREET SUITE 900

City: DENVER State: CO Zip: 80202

Contact Name: Mosiah Montoya

Phone: (303)249 2425

Fax: ()

Email: denverregulatory@chevron.onmicrosoft.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance

☒ The Operator has provided or will provide Financial Assurance to the COGCC for this Well.

Surety ID Number (if applicable): 20030009

Federal Financial Assurance

☐ In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ _____

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NESE Sec: 18 Twp: 6N Rng: 64W Meridian: 6

Footage at Surface: 2351 Feet FSL 912 Feet FEL

Latitude: 40.485161 Longitude: -104.586998

GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP

Date of Measurement: 06/03/2019

Ground Elevation: 4702

Field Name: WATTENBERG

Field Number: 90750

Well Plan: is ☐ Directional ☒ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 17 Twp: 6N Rng: 64W

Footage at TPZ: 985 FNL 200 FWL

Measured Depth of TPZ: 7668

True Vertical Depth of TPZ: 6857

FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 16 Twp: 6N Rng: 64W Footage at BPZ: 993 FNL 200 FEL
Measured Depth of BPZ: 17823 True Vertical Depth of BPZ: 6857 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 16 Twp: 6N Rng: 64W Footage at BHL: 993 FNL 200 FEL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? Yes

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☒ Yes ☐ No

☒ If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: Approved Date of Final Disposition: 01/08/2020

Comments: CDP WOGLA 1041WOGLA19-0042 filed 12/10/2019, recorded 1/8/2020. A site-specific WOGLA will be filed prior to commencement of operations.

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Mineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Surface Owner Protection Bond (if applicable): _____ Surety ID Number (if applicable): _____

MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

- ☒ Fee
☒ State
☐ Federal
☐ Indian
☐ N/A

LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

* If this Well is within a unit, describe a lease that will be developed by the Well.

* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

T6N-R64W, 6th P.M., Sec. 17: W/2NW/4, SE/4, all formations; Sec. 17: NE, E/2NW/4, SW/4, all formations below the base of the Codell formation

Total Acres in Described Lease: 240

Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 605 Feet
Building Unit: 797 Feet
Public Road: 901 Feet
Above Ground Utility: 886 Feet
Railroad: 5280 Feet
Property Line: 300 Feet

INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR	407-3384	1280	6N-64W-16: ALL; 17: ALL

Federal or State Unit Name (if appl): _____

Unit Number: _____

SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 200 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 635 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: _____ Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: _____ Feet

Exception Location

☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers. _____

SPACING & FORMATIONS COMMENTS

Drilling and Spacing Unit configuration: T6N-R64W, 6th P.M., Sec 16: ALL; Sec 17: ALL. See the Approved Spacing Order No. 407-3384.

DRILLING PROGRAM

Proposed Total Measured Depth: 17823 Feet TVD at Proposed Total Measured Depth 6857 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: 116 Feet ☐ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H₂S Drilling Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

CASING PROGRAM

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
CONDUCTOR	26	16	A-52A	36.94	0	80	175	80	0
SURF	13+1/2	9+5/8	J-55	36	0	1850	640	1850	0
1ST	8+1/2	5+1/2	P-110	17	0	17823	2070	17823	

☐ Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

<u>Zone Type</u>	<u>Formation /Hazard</u>	<u>Top M.D.</u>	<u>Top T.V.D.</u>	<u>Bottom M.D.</u>	<u>Bottom T.V.D.</u>	<u>TDS (mg/L)</u>	<u>Data Source</u>	<u>Comment</u>
Groundwater	Surface Alluvium	0	0	205	205	1001-10000	Groundwater Sample	COGCC Environmental Sample Site #755613
Groundwater	Laramie Fox Hills	205	205	360	360	1001-10000	Groundwater Sample	COGCC Environmental Sample Site #752419 & 754475
Confining Layer	Pierre Shale	360	360	590	590			
Groundwater	Upper Pierre Aquifer	590	590	1610	1610	1001-10000	Other	COGCC Project #2141, Figure 5
Confining Layer	Pierre Shale	1610	1610	3700	3650			
Hydrocarbon	Parkman	3700	3650	4300	4125			
Confining Layer	Pierre Shale	4300	4125	4400	4200			
Hydrocarbon	Sussex	4400	4200	4888	4670			
Confining Layer	Pierre Shale	4888	4670	5200	5000			
Hydrocarbon	Shannon	5200	5000	5400	5170			
Confining Layer	Pierre Shale	5400	5170	6400	6030			
Hydrocarbon	Tepee Buttes	6400	6030	7050	6590			
Confining Layer	Pierre Shale	7050	6590	7250	6735			
Hydrocarbon	Niobrara	7250	6735	17823	6857			Potential Flow Formation Table: The TVD of the deepest hydrocarbon zone is the bottom of the well and not the bottom of the formation. The formation is not planned to be exited.

OPERATOR COMMENTS AND SUBMITTAL

Comments	<p>Noble Energy shall isolate both the Fox Hills and Upper Pierre Aquifers with surface casing from hydrocarbon bearing zones and exposure to oil-based drilling fluid. Noble Energy also agrees to not expose the Upper Pierre Aquifers to oil-based mud.</p> <p>The nearest well in unit per 2-D calculation is the Foose State A17-665 @ 635'. The nearest outside operated well per anti-collision is the State 8461 21-16 (API: 05-123-20772) PA Status @ 116'. Well is PA Status; no 408.u is required. Wells also within 150': Gulley 17-15 (API: 05-123-29438) PA Status @ 14'. Well is Noble operated; no 408.u is required.</p> <p>Well had a name change from Foose A16-675 to Foose State A17-675 late in the preparation of the attachments to this permit.</p>
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This application is in a Comprehensive Area Plan No CAP #: _____

Oil and Gas Development Plan Name WR OGD 1 OGD ID#: 481728

Location ID: 483511

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

Signed: _____

Print Name: Ann Feldman

Title: Regulatory Manager

Date: 3/31/2023

Email: regulatory@ascentgeomatics.c

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: 

Director of COGCC

Date: 5/1/2023

Expiration Date: 03/24/2030

API NUMBER

05 123 52157 00

Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	<p>Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:</p> <p>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.</p> <p>2) If a delayed completion, a second test is required between 6-9 months, or if there is pressure above 200 psi, after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation.</p> <p>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.</p>
Drilling/Completion Operations	<p>1) Submit Form 42 electronically to COGCC 2 business days prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 2 business days spud notice for all subsequent wells drilled on the pad.</p> <p>2) Comply with Rule 408.j and provide cement coverage from the end of production casing to a minimum of 500' above Niobrara. Verify coverage with cement bond log.</p> <p>3) Oil-based drilling fluid is to be used only after all aquifers are covered.</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the following non-operated listed wells: Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>State Lease 23-16 (API NO 123-13979) Carlson 44-7 (API NO 123-14171)</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells: Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>Foose A18-03 (API NO 123-32666) Foose A18-09 (API NO 123-13528) Gulley 12-17 (API NO 123-23040) Uhrich 11-17 (API NO 123-23041) Gulley 17-13 (API NO 123-29437)</p>
4 COAs	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run.
2	Drilling/Completion Operations	If a skid is performed for the subject well, then the only required BOPE tests are for the BOPE connection bonnet seal breaks, as long as a full BOPE test was performed at the beginning of the pad, and as long as all necessary BOPE tests are completed at least every 30 days during the pad operations.
3	Drilling/Completion Operations	Anti-collision: Prior to drilling operations, Operator will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument and compared against the proposed well path with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottom hole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. For the proposed well, upon conclusion of drilling operations, an as constructed gyro survey will be submitted to COGCC with the Form 5.
4	Drilling/Completion Operations	Operator will log two (2) wells during the first rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the two stratigraphically deepest wells on each side of the pad.

Total: 4 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
402874099	FORM 2 SUBMITTED
403295717	OffsetWellEvaluations Data
403295718	DEVIATED DRILLING PLAN
403295720	DIRECTIONAL DATA
403295722	WELL LOCATION PLAT
403389410	OFFSET WELL EVALUATION

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	With operators concurrence added Open Hole Logging COA. Final Review Completed.	04/14/2023
Permit	<p>ON HOLD: This application has been reviewed by COGCC staff and cannot be approved based on the information submitted; therefore, the COGCC is placing this form ON HOLD until additional information is received from the applicant. If the information is not received by June 15, 2023 these applications will be withdrawn.</p> <p>In compliance with § 24-65.1-108(1), C.R.S., the COGCC is providing this written request for all additional information necessary for the COGCC to respond to this application. The applicant may provide all requested additional information to COGCC via email. Upon receipt of all requested information, the COGCC will have 60 days in which to approve, deny, or request all additional information necessary to complete the regulatory review. If the applicant no longer requires this application be approved, the applicant may request to withdraw the application.</p> <p>In addition to all standard required information and attachments, the COGCC hereby confirms the following information is necessary for review.</p> <ol style="list-style-type: none"> 1. Remove Open Hole Logging Exception request letter. 2. Add the standard COA for Open Hole Logging: Alternative Logging Program: One of the first wells drilled on the pad will be logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run." 3. Add the additional COA for Open Hole Logging: Operator will log two (2) wells during the first rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the two stratigraphically deepest wells on each side of the pad. 4. Correct the Drilling and Spacing Unit number 5. Correct the Footage at BPZ for each APD 6. Correct the Footage at BHL for each APD <p>Returned to draft per operator's request.</p>	03/17/2023
Permit	Emailed the SLB to notify them of this pending application. SLB has no concerns with this application.	03/14/2023
Engineer	Offset Wells Evaluated.	01/31/2023
OGLA	The Commission approved OGDG #481728 on September 28, 2022 for the Oil and Gas Location related to this Form 2. OGLA task passed.	01/23/2023

Total: 5 comment(s)