

FORM  
2A

Rev  
08/19

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:

402092805

Date Received:

08/03/2019

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:

**470402**

Expiration Date:

**12/29/2022**

☒ 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: Craig Richardson

Phone: (303) 228-4232

Fax: ( )

email: Denverregulatory@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: A Number: 35-13 Pad

County: WELD

QuarterQuarter: SWSW Section: 35 Township: 6N Range: 64W Meridian: 6 Ground Elevation: 4651

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: 260 feet FSL from North or South section line

293 feet FWL from East or West section line

Latitude: 40.436330 Longitude: -104.525730

PDOP Reading: 1.1 Date of Measurement: 04/17/2019

Instrument Operator's Name: Scott Estabrooks

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below.

☒ 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 local government siting permit type is: WOGLA

The local government siting permit was filed on: 07/15/2019

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

WOGLA approved 11/21/19

## 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 469940

## FACILITIES

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

Wells <u>7</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>1</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\*

<u>Other Facility Type</u>	<u>Number</u>
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\*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:

Three (3) 8-12" Temporary Fresh Water Poly Lines  
Seven (7) 2-4" Three Phase Flowline  
One (1) 2-4" Steel Gas Lift Line

## CONSTRUCTION

Date planned to commence construction: 02/01/2020 Size of disturbed area during construction in acres: 8.90  
Estimated date that interim reclamation will begin: 08/01/2020 Size of location after interim reclamation in acres: 1.20  
Estimated post-construction ground elevation: 4651

## 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?

Reuse Facility ID:  or Document Number:

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

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Bryan D. & Dixie A Hoffne

Phone:

Address: 30300 County Road 57

Fax:

Address:

Email:

City: Gill State: CO Zip: 80624

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 07/24/2019

If this Form 2A is associated with Drilling and Spacing Unit applications, list docket number(s):

## 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.

	<b>From WELL</b>	<b>From PRODUCTION FACILITY</b>
Building:	395 Feet	_____ Feet
Building Unit:	560 Feet	_____ Feet
High Occupancy Building Unit:	5280 Feet	_____ Feet
Designated Outside Activity Area:	5280 Feet	_____ Feet
Public Road:	247 Feet	_____ Feet
Above Ground Utility:	232 Feet	_____ Feet
Railroad:	5280 Feet	_____ Feet
Property Line:	7 Feet	_____ Feet
School Facility::	5280 Feet	_____ Feet
School Property Line:	5280 Feet	_____ Feet
Child Care Center:	5280 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, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.  
 - For measurement purposes only, Production Facilities should only include those items with an asterisk(\*) on the Facilities Tab.

**SCHOOL SETBACK INFORMATION**

Was Notice required under Rule 305.a.(4)? ☐ Yes ☒ No

**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: 05/14/2019

**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: 32 - Kim loam, 1 to 3 percent slopes

NRCS Map Unit Name: 38 - Nelson fine sandy loam, 3 to 9 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: 20 Feet

water well: 2150 Feet

Estimated depth to ground water at Oil and Gas Location 12 Feet

Basis for depth to groundwater and sensitive area determination:

Sensitive area determination is based on the Ditch at 20 feet W. Permit 227186 is the closest water well and best indication of depth to ground water (static water level). The average depth of the three closest wells is 12 feet.

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**

These wells will be producing into the A34-14 Multi - Production Facility, located 4,460' to the west. Noble will P&A the Hoffner 14-35 well prior to construction of the A35-13 pad. The facility has already been decommission for this well. The Hoffner 24-35 operated by PDC also produced to this facility and will be P&A'd prior to the construction of the pad.

There are Building Units within 1,000' of this Location. Per Rules 305.a. and 303.b.(3).J.iii. Pre-application notifications have been sent to Building Unit Owners within the Buffer Zone. Please see attached Operator's Certification.

There are no Schools, School Facilities, School Properties or Child Care Centers within 1,320' of the Oil and Gas location and therefore a Rule 305.a.(4) certification has not been provided with the submittal of this application.

See attached the Operator's certification that the MLVT will be designed and implemented consistent with the June 13, 2014 COGCC MLVT policy.

Vendor: ShaleStone

Number & Size: We will set one (1) MLVT (67' Diameter, 20,000 bbl) on location

Anticipated Time Frame on location: 4 Months

Location/Placement: SE corner as depicted on Location Drawing.

Waiver language pursuant to COGCC Rule 318A.a. and Rule 318A.c.(2) is contained within the signed Surface Use Agreement.

The wells on this Location are located less than 150' from a property line. The Surface Owner is also the adjacent property owner. Per Rule 603.a.(2) Property Line Waivers signed by the adjacent property owner and recorded in Weld County are included in Form 2s.

Reveille A35-750 (402092799) will be submitted when the 30 day proposed spacing unit notice has passed.

Siting Analysis: Surface Owner lives within the Objective Criteria 1500' zone surrounding the A35-13 Pad. Noble executed a Surface Use Agreement with the Surface Owner to locate the A35-13 Pad in the corner of an irrigation pivot, to avoid permanent impact following interim reclamation. Noble located the Reveille wells on the property in such a way that optimizes drilling by reducing the wellbore step out distance within the Drill Spacing Unit which is crucial when drilling and completing 2-mile-long laterals. This location allows production to flow to the proposed A34-14 Multi location for separation, measuring and pick-up by pipeline. Two alternative locations were examined for this pad. The first, to the east, would have had fewer impacted Building Units, but would have been located within the Crow Creek floodplain and would have resulted in stranded minerals. The second, to the west, would have brought more Building Units into the Objective Criteria 1500' zone and caused significant permanent interference to an irrigation pivot. No suitable locations were found in the northern portion of the proposed Drill Spacing Unit.

- BU Concerns: Noble has contacted all Building Unit Owners within 1500' of the proposed disturbance area to address questions and concerns. The concerns expressed include dust, light and noise. Noble will mitigate dust, light, and noise of the operation pursuant to COGCC Rules and Regulations. Noble plans to work with Weld County to ensure dust mitigation along County Road 62 east and west of County Road 57 is in place prior to construction and throughout the drilling and completion process. Noble will construct sound walls no less than sixteen feet tall to mitigate light and noise from operations.

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

Signed: \_\_\_\_\_ Date: 08/03/2019 Email: DenverRegulatory@nblenergy.com

Print Name: Julie Webb Title: Sr. Regulatory Analyst

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: \_\_\_\_\_ Director of COGCC Date: 12/30/2019

**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****Best Management Practices**

No	BMP/COA Type	Description
1	Planning	<p>COGCC Rule 604.c.(2)E. Multiwell Pads.</p> <p>Planning:</p> <ul style="list-style-type: none"> <li>• Noble shall consolidate wells to create multi-well pads, including shared locations with other operators. Multi-well production facilities shall be located as far as possible from Building Units.</li> <li>• The pad shall be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping.</li> <li>• Pads shall have all weather access roads to allow for operator and emergency response.</li> </ul>
2	Planning	<p>COGCC Rule 604.c.(2)U. Identification of plugged and abandoned wells.</p> <p>Planning:</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>
3	Planning	<p>COGCC Rule 604.c.(2)V. Development from existing well pads.</p> <p>Planning:</p> <ul style="list-style-type: none"> <li>• Where possible, operators shall provide for the development of multiple reservoirs by drilling on existing pads or by multiple completions or commingling in existing wellbores (see Rule 322). Due to surface owner constraints, well spacing constraints and the lack of existing and appropriately-sized drill pads in the area, Noble was not able to plan drill of the proposed wells from pre-existing well pads. Noble is aware that when any operator asserts it is not possible to comply with, or requests relief from, this requirement, the matter shall be set for hearing by the Commission and relief granted as appropriate.</li> </ul>
4	Planning	<p>COGCC Rule 803 Lighting</p> <p>Planning:</p> <ul style="list-style-type: none"> <li>• Lighting on location is considered temporary and will be used during recompletion activities. Permanent lighting will not be installed and utilized during normal production operations. Temporary lighting will be directed downward, inward, and shielded towards location to avoid glare on public roads and Building Units within 1,500 feet. Lighting will be turned off when practical, i.e., no operations being conducted.</li> </ul>
5	Planning	<p>COGCC Rule 805.c Fugitive Dust</p> <p>Planning:</p> <p>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 to minimize fugitive dust emissions.</p>
6	Community Outreach and Notification	<p>Noble Energy will provide a copy of the COGCC Fact Sheet: Oil and Gas Within 2,000 FEET to all building units within 2,000' of the proposed oil and gas location via UPS prior to construction. Notifications shall be addressed to "Occupant" to ensure that they are received by the building unit occupant.</p>
7	Traffic control	<p>COGCC Rule 604.c.(2)D. Traffic Plan.</p> <p>Traffic Control:</p> <p>Speed limits will be enforced. The traffic plan and route will include mitigation of impacts from temporary operations by applying water or magnesium chloride as dust suppression within 1000' of occupied residences on Weld County Road 62, and on lease roads as necessary in cooperation with the county.</p>
8	General Housekeeping	<p>COGCC Rule 604.c.(2)O. Loadlines.</p> <p>Drilling/Completion Operations:</p> <ul style="list-style-type: none"> <li>• All loadlines will be bullplugged or capped.</li> </ul>



9	General Housekeeping	<p>COGCC Rule 604.c.(2)P. Removal of surface trash.</p> <p>General Housekeeping:</p> <ul style="list-style-type: none"> <li>• All surface trash, debris, scrap or discarded material connected with the operations of the property shall be removed from the premises or disposed of in a legal manner.</li> </ul>
10	General Housekeeping	<p>COGCC Rule 604.c.(2)T. Well site cleared.</p> <p>General Housekeeping:</p> <ul style="list-style-type: none"> <li>• Within ninety (90) days after a well is plugged and abandoned, the well site shall be cleared of all non-essential equipment, trash, and debris. For good cause shown, an extension of time may be granted by the Director.</li> </ul>
11	General Housekeeping	<p>COGCC Rule 604.c.(2)W. Site-specific measures.</p> <p>Type: 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.</p> <p>Type: Produced Natural Gas Per natural gas produced from the well pad; Noble Energy intends to connect to a gas sales line at the first indication of salable quality gas. The sales line is in-place and during any emergency situation where the sales line is not operational, Noble would shut-in production.</p> <p>Type: Stormwater/Erosion Control Stormwater management plans (SWMP) are in place to address construction, drilling, and operations associated with Oil &amp; Gas development throughout the state of Colorado in accordance with Colorado Department of Public Health and Environment (CDPHE) and General Permit No.'s: COR403291; COR403292; COR403293; and COR403294. BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. Specific BMP's used may include stockpile stabilization, grading, sediment traps, and perimeter barriers based on final construction design and will remain in place until the pad reaches final reclamation.</p> <p>Type: MLVTs and Stormwater Management Per COGCC Policy- due to the presence of Building Units and associated buffers for this well pad; Noble intends to install emergency containment of MLVTs in the form of soil berms or another perimeter barrier.</p> <p>Type: Material Handling and Spill Prevention Spill Prevention Control and Countermeasures (SPCC) plans are in place to address any possible spill associated with Oil &amp; Gas operations throughout the state of Colorado in accordance with CFR 112.</p>

12	Material Handling and Spill Prevention	<p>COGCC Rule 604.c.(2)F. Leak Detection Plan.</p> <p>Material Handling and Spill Prevention:</p> <ul style="list-style-type: none"> <li>• Noble Energy Inc. designs well heads and supporting infrastructure on the well pad to avoid releases and to be compliant with all regulations specific to leak detection and control (i.e. SPCC 40CFR112). Daily, monthly and annual inspections are performed at each well pad to confirm operational integrity and regulatory compliance. Noble will perform maintenance if it is deemed necessary through any of the scheduled inspections. Automation technology is utilized to monitor any variations in pressures and fluid gauges which could indicate a leak at the well head or flow lines to the production facility. In addition, automation provides remote shut-in capabilities in the event of an emergency.</li> </ul>
13	Material Handling and Spill Prevention	<p>COGCC Rule 604.c.(2)K. Pit level indicators.</p> <p>Material Handling and Spill Prevention:</p> <ul style="list-style-type: none"> <li>• Due to using a closed loop system pits will not be used.</li> </ul>
14	Material Handling and Spill Prevention	<p>COGCC Rule 604.c.(2)N. Control of fire hazards.</p> <p>Material Handling and Spill Prevention:</p> <ul style="list-style-type: none"> <li>• Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.</li> <li>• Flammable liquids shall not be stored within fifty (50) feet of the wellbore, except for the fuel in the tanks of operating equipment or supply for injection pumps. Where terrain and location configuration do not permit maintaining this distance, additional equivalent safety measures will be taken.</li> </ul>
15	Construction	<p>COGCC Rule 604.c.(2)M. Fencing requirements.</p> <p>Construction:</p> <ul style="list-style-type: none"> <li>• Unless otherwise requested by the Surface Owner, well sites constructed within the Designated Setback location will be fenced to restrict access by unauthorized persons.</li> </ul>
16	Construction	<p>COGCC Rule 604.c.(2)S. Access roads.</p> <p>Construction:</p> <ul style="list-style-type: none"> <li>• At the time of construction, all leasehold roads shall be constructed to accommodate local emergency vehicle access requirements, and shall be maintained in a reasonable condition. Noble Energy plans on building the access road off of WCR 62 for Drilling and Completion activities.</li> </ul>
17	Noise mitigation	<p>COGCC Rule 604.c.(2)A. Noise.</p> <p>Noise Mitigation:</p> <ul style="list-style-type: none"> <li>• Temporary Drilling and Completion operations – Baseline surveys will be completed at the residences within 560 feet and 662 feet to the Southwest, and 930 feet to the North. Engineered sound walls no less than 16' tall will be used along the southern, western and northern sides for well pad A35-13 to mitigate noise impacts to these residences. Sound wall gaps will be strategically placed to adequately protect residences yet allow proper air-flow across the drill pad. The use of equipment specific sound walls will be used as necessary around rig generators in the event of sound impacts during operations.</li> </ul>

18	Emissions mitigation	<p>COGCC Rule 604.c.(2).C. Green Completions – Emission Control Systems.</p> <p>Emissions Mitigation:</p> <ul style="list-style-type: none"> <li>• Flow lines, separators, and sand traps capable of supporting green completions as described in Rule 805 shall be installed at any Oil and Gas Location at which commercial quantities of gas are reasonably expected to be produced based on existing adjacent wells within 1 mile.</li> <li>• Uncontrolled venting shall be prohibited in an Urban Mitigation Area.</li> <li>• Temporary flowback flaring and oxidizing equipment shall include the following: <ul style="list-style-type: none"> <li>o Adequately sized equipment to handle 1.5 times the largest flowback volume of gas experienced in a ten (10) mile radius;</li> <li>o Valves and porting available to divert gas to temporary equipment or to permanent flaring and oxidizing equipment; and</li> <li>o Auxiliary fuel with sufficient supply and heat to sustain combustion or oxidation of the gas mixture when the mixture includes non-combustible gases.</li> </ul> </li> </ul>
19	Odor mitigation	<p>Odor Mitigation</p> <p>Regarding odor control in a buffer zone, Noble utilizes an oil based drilling fluids system, alternatively referred to as oil based mud (OBM) system, of which the base fluid is an alternative to off-road diesel. The base fluid has a number of benefits versus off-road diesel including lower BTEX levels, it is classified as Non-Flammable or Combustible by OSHA/WHMIS Criteria, is considered by the US DOT to be a non-regulated material and has a significantly higher flash point which makes the material much safer than off-road diesel. The higher flash point for oil based drilling fluids versus diesel is a result of a lower amount of light ends that will flash off at higher temperatures versus off-road diesel, thus the properties of the base fluid will reduce the odors at the drill site that are associated with the OBM system.</p>
20	Drilling/Completion Operations	<p>COGCC Rule 604.c.(2)B. Closed Loop Drilling Systems – Pit Restrictions.</p> <p>Drilling/Completion Operations:</p> <p>Noble will utilize a closed-loop drilling system and commits that drilling system pits will not be used under this approval. Any associated fresh water storage pit will meet the requirements of Rule 604.c.(2)B, as follows:</p> <ul style="list-style-type: none"> <li>• Pits are not allowed on Oil and Gas Locations within the Buffer Zone Setback, except fresh water storage pits, reserve pits to drill surface casing, and emergency pits as defined in the 100-Series Rules.</li> <li>• Fresh water pits within the Exception Zone shall require prior approval of a Form 15 pit permit. In the Buffer Zone, fresh water pits shall be reported within 30-days of pit construction.</li> <li>• Fresh water storage pits within the Buffer Zone Setback shall be conspicuously posted with signage identifying the pit name, the operator's name and contact information, and stating that no fluids other than fresh water are permitted in the pit. Produced water, recycled E&amp;P waste, or flowback fluids are not allowed in fresh water storage pits.</li> <li>• Fresh water storage pits within the Buffer Zone Setback shall include emergency escape provisions for inadvertent human access.</li> </ul>
21	Drilling/Completion Operations	<p>COGCC Rule 604.c.(2)Q. Guy line anchors.</p> <p>Drilling/Completion Operations:</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>

22	Drilling/Completion Operations	<p>Noble Energy Inc. (Noble) has developed Best Management Practices (BMPS) to prevent injuries, property damage or environmental impacts and a Contingency Plan for any Modular Large Volume Tank (MLVT) leak or catastrophic failure of the tank integrity and resulting loss of fluid. These BMPs include, but are not limited to, the following:</p> <ol style="list-style-type: none"> <li>1) Noble determines MLVT locations based on size of location, nearby surface waters, site visibility, surrounding land use, property lines, onsite traffic, site security, tearaway tank fill connections, topography (high, low, slope, direction), nearby building units, roads, access points, and surface owner requests.</li> <li>2) Signs shall be posted on each MLVT to indicate that the contents are fresh water and that no E&amp;P waste fluids are allowed. Location and additional signage shall conform to Rule 210.</li> <li>3) MLVTs will be operated with a minimum of 1-foot freeboard at all times.</li> <li>4) Access to the tanks shall be limited to operational personnel.</li> <li>5) Construction and installation of the tank structure, liner and sub-grade shall meet or exceed the manufacturer specifications. Noble follows manufacturer's Standard Operating Procedures (SOPs) and will provide these SOPs upon request to the COGCC.</li> <li>6) Noble will conduct daily, visual inspections of the exterior wall and general area for any integrity deficiencies before, during, and after filling the MLVTs. Noble uses Construction Sign-Off, Site Preparation Sign-Off, Completion Sign-Off, Pre-Fill, and Site Visit checklists to maintain a written record of inspections. However, when the fluid level in the MLVTs is less than two (2) feet and there is no activity going on (i.e. during holidays or a small break between completions), only intermittent inspections will be conducted. Two feet is the safe volume of fluid level that is needed to hold the liner down and keep the MLVT stable.</li> <li>7) Each location where MLVT's are used will have its own set of unique site-specific characteristics and associated risks (e.g., rural vs. urban setting, grade of the location, etc.) to be considered in a worst-case scenario. These characteristics must be identified and addressed prior to the MLVT construction phase and should be documented in the MLVT construction checklist. Ensuring the safety of our employees, contractors, and the public are a top priority. This can be addressed with the implementation of MLVT pre-construction risk assessment measures to address safety concerns and minimize environmental impacts and property damage in the unlikely event of a MLVT release.</li> <li>8) In the event of a catastrophic MLVT failure, the Operator shall notify the COGCC as soon as practicable but not more than 24 hours after discovery, submit a Form 22-Accident Report within 10 days after discovery, conduct a "root cause analysis", and provide same to COGCC on a Form 4-Sundry Notice within 30 days of the failure.</li> <li>9) The MLVT shall be constructed and operated in accordance with a design package certified and sealed by a Licensed Professional Engineer either in Colorado or the state where the MLVT was designed or manufactured.</li> <li>10) COGCC Rules 605.a.(3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of this MLVT.</li> <li>11) All MLVT liner seams shall be welded and tested in accordance with applicable ASTM international standards. Any repairs to liners shall be made using acceptable practices and applicable standards.</li> </ol> <p>The MLVT will be designed and implemented consistent with the June 13, 2014 COGCC MLVT policy.</p>	
23	Drilling/Completion Operations	<p>All surficial activities performed by Noble during well drilling and completion activities will be protective of the environment. Bulk liquids used during D&amp;C activities will be containerized in appropriate sealed vessels and underlain by an impervious liner and containment berm capable of containing any spill or leak from that vessel. Valves and temporary flow lines associated with D&amp;C activities will be inspected daily for leaks while in service. Any spills identified on location will be immediately contained, recovered, disposed of, remediated and reported per COGCC Series 900 Rules (906. Spills and Releases).</p>	

Total: 23 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2479145	CORRESPONDENCE
2479146	306.e CERTIFICATION LETTER
2479338	OBJECTIVE CRITERIA REVIEW MEMO
402092805	FORM 2A SUBMITTED
402131825	WASTE MANAGEMENT PLAN
402131826	ACCESS ROAD MAP
402131827	FACILITY LAYOUT DRAWING
402131828	HYDROLOGY MAP
402131830	LOCATION PICTURES
402131831	MULTI-WELL PLAN
402131832	OTHER
402131833	PRE-APPLICATION NOTIFICATION CERTIFICATION
402132155	SURFACE AGRMT/SURETY
402132706	LOCATION DRAWING
402148784	NRCS MAP UNIT DESC

Total Attach: 15 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Permitting Review Complete. Spacing Order 407-2908 approved September 25, 2019.	12/23/2019
OGLA	The Objective Criteria Review Memo (Doc #2479338) is attached to this Form 2A. Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	12/23/2019
OGLA	Operator removed the mention of a siting rationale for the production facilities as the production facilities are not within 1,000 feet of a Building Unit, revised the distance to the nearest water well, revised the Fugitive Dust mitigation BMP, moved the Siting Analysis & BU Concerns from the BMPs to the Operator Comment section, revised the Noise mitigation BMP, revised the Produced Natural Gas BMP, & provided the Rule 306.e.  No Public Comments. OGLA review completed and task passed.	09/17/2019
OGLA	COGCC staff conducted its technical review of this Form 2A Oil and Gas Location Assessment within the context of SB 19-181 and the required Objective Criteria. This Form 2A met Objective Criteria # 1 & 5c.	09/10/2019
OGLA	Operator has indicated the Hofner 14-35 well (123-22824; Loc ID# 305342) will be plugged and abandoned and the tank battery location (Loc ID# 433955) has been decommissioned.  Requested operator remove the mention of a siting rationale for the production facilities as the production facilities are not within 1,000 feet of a Building Unit, revise the distance to the nearest water well, revise the Fugitive Dust mitigation BMP, move the Siting Analysis & Building Unit Concerns from the BMPs to the Operator Comment section, revise the Noise mitigation BMP, revise the Produced Natural Gas BMP, & provide the Rule 306.e. Certification letter. Due by 10/1/19.	09/10/2019
OGLA	Operator's proposed disturbance area overlaps two other existing Noble Energy locations. Asked them to provide clarification as to their intentions regarding these two existing locations.	08/23/2019
Permit	Returned to draft - Missing Kim loam NRCS Map Unit Desc. Corrected by operator. Passed Completeness.	08/19/2019
Permit	Referred to OGLA supervisor for buffer zone review.	08/06/2019

Total: 8 comment(s)