

COGCC Response to CDPHE Consultation Recommendations

Noble Energy, Inc (Noble):

- **OGDP #2 (OGDP ID# 481735)**
- **OGDP #3 (OGDP ID# 481740)**
- **OGDP #4 (OGDP ID# 481741)**

The Director made her Completeness Determination on the OGDPs #2, 3, and 4 on March 10, 2022. The Colorado Department of Public Health and Environment (CDPHE) consulted with the Director and Noble pursuant to Rule 309.f, and provided their written consultation summary and recommendations to Noble and COGCC electronically on March 30, 2022.

CDPHE Staff reviewed the Form 2As and associated Form 2Bs for OGDPs #2-4 with a primary focus on minimizing or mitigating potential adverse impacts to air resources, water resources, and public health. CDPHE recommends two conditions of approval (COAs), to be applied at all three OGD #2-4 Locations. This Memo summarizes CDPHE's recommendations and Noble's responses; please see CDPHE's full consultation summary document and Noble's full response document, attached to the Form 2As, for full text and details. This Memo also includes COGCC Staff's responses to CDPHE's recommendations. Staff incorporated CDPHE's recommendations where appropriate, and declined others, in order to make a more sound recommendation to the Commission.

COA #1 - ELECTRIFICATION: Operator will use electric Drill Rigs.

Noble's Response to COA #1: Noble is planning to use available grid power to run one electric rig in the CDP area. Noble plans to run two rigs at the same time, which might be an overdraw of power in the area. If electricity is not available, Noble plans to use natural gas-powered engines (as opposed to diesel engines) to minimize emissions from the drilling rigs.

COGCC Response to COA #1: Noble's comment (above) was provided in April, 2022. Subsequently, the COGCC Hearing of Noble's OGD #1 application (September 28-29, 2022) resulted in Noble's additional commitment that OGDs #2-4 will employ the use of one electric (high line powered) rig for drilling operations. Noble confirmed to Staff that a second rig will not be used at this time.

COA #2 - ODOR MITIGATION: 1) Operator will use group III drilling mud; and 2) Operator will use a chiller to cool drilling fluid as it is piped through the recirculation system before routing to the suction tanks.

Noble Response to COA #2: Noble plans to use a drilling fluid (D822), which is a middle run distillate with minimal traces of Benzene, Toluene, Ethylbenzene, and Xylene (BTEX). Noble feels the D822 and group III drilling fluids are comparable for BTEX composition and with an odor neutralizer, the D822 odor will not impact RBU occupants. Noble has offered to use Group III mud for Locations with occupied RBUs 500 feet or closer.

Noble declines to use a chiller to cool drilling fluids. According to Noble, there is not any evidence that cooling drilling fluids in the DJ basin reduces odors or emissions. The average temperature of drilling fluids in the recirculation system is 140 degrees fahrenheit (F), which is lower than other basins that use mud chillers for equipment protection. The benefit of using chillers in the DJ basin is minimal and does not reduce odors or emissions is outweighed by the energy required for the chillers.

COGCC Response to COA #2: Noble's comment (above) was provided in April, 2022. Subsequently, the COGCC Hearing of Noble's OGD #1 application (September 28-29, 2022) resulted in Noble's additional commitment that Group III drilling fluids will be used on all wells in OGDs #2-4.

Although COGCC Staff supports the voluntary use of chillers to reduce odors from drilling fluids, COGCC Staff does not support the recommended COA for this OGD application because implementation could create unintended operational or safety concerns.

COGCC CONCLUSION

COGCC appreciates the consultation provided by CDPHE for the proposed Noble OGD #2, 3, and 4 and all associated proposed Locations. COGCC Staff's finding in its Director's Recommendation – that this OGD application complies with the Commission's Rules and should be considered for approval by the Commission – is unchanged after reviewing CDPHE's consultation. Staff does acknowledge that the implemented recommendations do make the permit more protective, and we recognize and value the contribution CDPHE's consultation and expertise provides.