

Objective Criteria Review Memo *Grand Mesa Operating Company, Glyde-Nana Unit 1-15, Form 2A 401802351*

This summary explains how COGCC staff conducted its technical review of the Grand Mesa Operating Company (Grand Mesa), Glyde-Nana Unit 1-15, Form 2A, Doc no 401802351 within the context of SB 19-181 and for the required Objective Criteria. This proposed Location is for one well, one drilling pit, no production equipment, and meets the following Objective Criteria:

1. (Criteria #5.c) The proposed Location lies within a Sensitive Area for water resources (within an area of potential shallow groundwater and proximity to surface water).

COGCC staff met with the Director to discuss the Objective Criteria for the Form 2A with the proposed Best Management Practices (BMPs) and applied Conditions of Approval (COAs). The following sections provide details regarding the evaluation of each criterion.

Criteria 5.c: Oil and Gas Locations within a Sensitive Area for water resources.

Site Specific Description of Applicability of Criteria 5.c: The Location is in a sensitive area due to the potential for shallow groundwater and proximity to surface water. Estimated depth to groundwater is 10 feet based on a nearby water well. The surface water is a drainage to Arikaree Creek, located 81 feet north of the location. This location is also in a Sensitive Area due to its presence in the Arikaree Designated Ground Water Management Area and the Northern High Plains Basin recharge zone.

Site Specific Measures to Address Criteria 5.c: Grand Mesa has placed BMPs on the Form 2A for protection of the shallow groundwater at the Location. BMPs include stormwater controls to control surface runoff. COGCC staff placed COAs on the location to require additional sampling of the soils under the pit prior to pit closure, to require the submittal of a Form 42 prior to pit closure, to use engineering controls to minimize the potential for sediment/contaminant migration into the nearby waterway, and so that if groundwater is encountered during construction of the drilling pit, the operator shall line the pit or switch to a closed loop system.

Summary: Grand Mesa provided BMPs that address surface runoff concerns. COGCC staff expanded upon these BMPs with COAs to further increase protection of public health and the environment.

Director Determination: Based on the Objective Criteria review. The Director has determined that this permit application meets the standard for protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.