

## **Objective Criteria Review Memo - Bison Oil & Gas II LLC**

**Hunt Fed 8-60 6A-31-30-1 -- Form 2 Application for Permit to Drill (APD) Doc# 402329603**

**Hunt Fed 8-60 6A**

**Approved Form 2A Oil & Gas Location Assessment (Doc# 401482682, approved 3/30/2018)**

**Location ID# 454627**

This memo summarizes COGCC's technical review of the subject well within the context of SB 19-181 and the required Objective Criteria. The Form 2A for this location and 13 APDs were approved on 3/30/2018. Bison O&G II has since submitted this subject refile APD (one of 10 total refile APDs) on this approved, unbuilt Oil & Gas Location.

For Oil & Gas Locations approved prior to SB 19-181, the Objective Criteria apply to any wells proposed on those approved or existing Oil & Gas Locations. This APD meets the following Objective Criteria:

1. (Criteria 5c) Oil and Gas Locations within: a Sensitive Area for water resources. The estimated depth to groundwater at this location is shallow at 12' and the distance to the nearest surface water feature is approximately 362' to the east (freshwater emergent wetland area).
2. (Criteria 8) Oil and Gas Locations with storage of hydrocarbon or produced liquid in more than 18 tanks or in excess of 5,200 barrels. The approved Form 2A states the location is planned for 26 oil tanks and 13 water tanks.

The following sections provide details regarding the evaluation of each criterion:

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

**Site Specific Description of Applicability of Criteria 5c:** The estimated depth to groundwater at this location is shallow at 12' and the distance to the nearest surface water feature is approximately 362' to the east (freshwater emergent wetland area).

**Site Specific Measures to Address Criteria 5c:** The Operator previously provided a Sundry (doc# 402354158) to update the location's BMPs to mitigate possible effects from having a location with estimated shallow groundwater and close to a surface water feature:

- Stormwater Controls: constructed around the perimeter of the site prior to construction (typically a ditch and berm system). BMPs will remain in place until the pad is stabilized or reaches final reclamation.
- Remote Monitoring: Operator shall use a Supervisory Control and Data Acquisition (SCADA) system in conjunction with tank level indicators which have the ability to automatically shut in wells during an upset condition.
- Lined Containment: Tank berms shall be constructed of steel walls with an engineered synthetic liner and designed to contain 100% of the capacity of the largest tank (or manifolded tanks) with the addition of rain water and additional freeboard to account

for any small piping or equipment that may be in containment. Operator will place separators within secondary containment composed of steel berms with a minimum containment capacity of 100% of the single largest storage vessel inside the containment. The engineered secondary containment system will be constructed of a perimeter of walls around a flexible geotextile base.

- Equipment Liners: Operator shall install a 30mil reinforced polyethylene liner, or liner of comparable material, under the drilling rig and associated equipment for use during drilling operations.
- Inspections: All berms will be visually checked weekly to ensure proper working condition. AVO inspections will occur weekly, and LDAR inspections are performed quarterly, or at the required frequency of County or State regulations. All records will be kept readily available.

**Summary:** Bison O&G II provided BMPs that address possible impacts to shallow groundwater and nearby surface water features. The BMPs include stormwater controls, remote monitoring/shut-in capabilities, weekly inspections, and lined containment.

**Criteria 8:** Oil and Gas Locations with storage of hydrocarbon or produced liquid in more than 18 tanks or in excess of 5,200 barrels.

**Site Specific Description of Applicability of Criteria 8:** The approved Form 2A states the location is planned for 26 oil tanks and 13 water tanks.

**Site Specific Measures to Address Criteria 8:** In addition to the previously discussed BMPs under Criteria 5c, the Operator provided the following information regarding the Emergency Response Plan for this location:

- An Emergency Response Plan was submitted to and approved by both the local emergency responders and Weld County Director of Emergency Management prior to receiving the approved WOGLA19-0097 on 8/16/2019. The Emergency Response Plan includes general field wide, site specific safety protocol, and a tactical response plan.

**Summary:** Bison O&G II provided BMPs that address possible impacts to having more than 18 tanks on location. The BMPs include remote monitoring/shut-in capabilities, weekly inspections, an approved Emergency Response Plan, and lined containment.

**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.