



**COLORADO**  
**Oil & Gas Conservation**  
**Commission**  
Department of Natural Resources

1120 Lincoln Street, Suite 801  
Denver, CO 80203

**MEMORANDUM**

August 15, 2016

**TO:** Robert P. (Bob) Koehler, PhD.  
Oil and Gas Conservation Commission

**FROM:** Chris Eisinger  
Colorado Oil & Gas Conservation Commission

**SUBJECT:** Seismic Evaluation, Diamond Operating, Inc.: Decker 22-18 #2, API # 121-05126

The location for the proposed injection well was reviewed using public maps and data; no site-specific subsurface data was evaluated.

The proposed formation of injection is the J-Sandstone of the Dakota Group. The bottom hole for this well has an estimated MD of 4,742 feet in the Dakota sands. Based on the regional stratigraphy, the bottom hole is many thousands of feet above the Precambrian basement.

The USGS National Earthquake Hazard Map shows areas susceptible to ground shaking during fifty year intervals. This part of Colorado is an area that has been designated as being susceptible to a lower PGA (~0.04 g) than most parts of the state.

There is one existing disposal wells within two miles of the proposed site.

No earthquakes or mapped faults are within ten miles of the proposed well according to published geologic maps. The likelihood of triggering earthquakes at this location associated with the proposed injection interval appears low. If any seismic activity is detected subsequent to the initiation of injection, a local seismometer would help determine whether activity is related to the injection, and allow for possible management of injection volumes and rates.



