## GLEN C. LUFF & ASSOCIATES, INC. P.O. Box 10674 MIDLAND, TX 79702

May 25, 2012

Re: STAR OIL AND GAS CO.
Water Disposal Proposal
New Mexico # 1-A
25(K), T16S-R33E
Lea County, New Mexico

The subject disposal project is located at the west end of the Kemnitz Field in central Lea County, New Mexico. The proposal is for injection into existing perforations in the Kemnitz-Wolfcamp pay zone of the New Mexico #1-A located in Sec. 25(K), T16S-R33E.

The Kemnitz-Wolfcamp Field was discovered in 1956 and has produced over 16 MMBO and 67 BCFG. Initially, production was from the Wolfcamp carbonate bank, but since then pays were found in the San Andres, other Wolfcamp intervals, the Pennsylvanian Cisco, Seaman zones and the Morrow sands. The interval of discussion is the Kemnitz-Wolfcamp at a depth of about 10,800'.

The Kemnitz-Wolfcamp pay is a prolific carbonate bank(locally reefoid) formed in Lower Wolfcamp times along the northern shelf of the Delaware Basin of Southeast New Mexico. It is approximately 300' thick, but does vary in development and continuity of porosity and permeability. Most of the pay intervals are found in the upper half of the carbonate bank.

Cross-section A-A' shows Kemnitz-Wolfcamp wells within a ½ mile radius of the proposed disposal well. Because of the vintage of the wells, the logs displayed are of varying types and should be used for correlation only and not for evaluation. In most cases, intervals of clean carbonate and porosity are evident, but not definitive. The Kemnitz-Wolfcamp pay is highlighted and all cored intervals, tests and perforations are shown. Details of the tests can be found in the well records. It should be noted that perforated zones range in thickness from five to over 200 feet, but most are about 35' at varying correlative intervals, suggesting possible pockets of porosity and permeability that may or may not be connected. This then suggests that disposal in the New Mexico #1-A may have limited or no effect on offsetting wells or at best may only possibly slightly increase production.

Attached is a plat of the subject area with cumulatives for produced oil, gas and water of nearby wells. These amounts are also shown below each well on the cross-section A-A'.

A copy of the Roswell Geological Society structure map of 1960 shows the subject well at a west end and down dip position to the Field. The original oil/water contact is estimated at -6650. Perforations in the New Mexico #1-A are from -6500 to -6648. It is reasonable to assume that after 50+ years of production the oil/water level has risen to the perforated intervals and the reservoirs are nearing depletion. The zone has shown capability of accepting fluid.

Geologist

2 attach:

GLEN C. LUFF
Certified Earth
Scientist



