Wood, McShane & Thams
South Leonard Queen Unit #13

Form 108-C, Item III.

Geologic Data on Injection Zone

The South Leonard Unit in southeast Lea County of New Mexico produces from the Queen formation found at an average depth of 3350 feet below the surface in this area. The Queen formation is best described as a series of sandstone stringers that comprise the "main pay" interval, which averages 30 feet thick. On the western edge of the unit, a separate sand body overlies the "main pay" and varies in thickness.

The lithologies of both sand bodies are similar; fine to very fine grained sandstones cemented with a calcareous cement. Porosities average 14% with water saturations in the range of 35%.

There are no known drinking water zones above the Queen formation in this area. In fact, the make-up for this water flood project must come from the San Andres formation which is below the Queen formation. The water analysis for the San Andres formation indicates dissolved solids are over 69,000 mg/1.

Form 108-C, Item XI.

There are no fresh water wells within one mile of the proposed injection well.