



July 24, 1985

Mr. Leon A. Romero
MAR Oil & Gas Corp., Inc.
P.O. Box 5155
Santa Fe, NM 87502

RE: MAR O & G #1 Estes
Torrance County, New Mexico

Dear Leon:

At your request we sent three canned samples from the referenced well to Geochem, Inc. in Houston for headspace and cuttings gas analysis for hydrocarbons. You will receive a written report from Geochem in two weeks, but we thought you might want a summary of their findings as given to me over the telephone yesterday by Don Davis. A summary of their analyses is attached.

The data show that hydrocarbon shows you have encountered while drilling are:

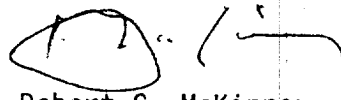
1. Live shows,
2. Oil shows in samples 1 and 3, and gas shows in sample 2, and
3. There is good evidence to support the contention that these hydrocarbons did not originate in the formations in which they now reside.

Therefore, your objective of an oil reservoir at depth seems reinforced by these shows. Sample 3 has a $(C_5 \times 1000)/C_1$ ratio of 87, which compares favorably with surface geochemical anomalies we mapped on this prospect which led to the drilling of the well. Recall that any ratio greater than 80 indicates an oil prone source.

The driller has reported hole deviation problems in association with these shows which suggests that the hydrocarbons are coming from fractures associated with faulting, and that the source of the oil noted on the pits at 310' is a reservoir at depth. The dissimilarity between headspace and cuttings gas for sample 3 tends to confirm this.

From other studies we have made in the Estancia Basin the most likely oil prone source associated with this structure is a gray shale to siltstone interval just above the Sandia sandstone. All other intervals are either immature, lacking in source material, or are gas prone. This analysis should help you find a partner for the completion of this well.

Yours truly,



Robert G. McKinney