Lafferty-DeLuca Services, Inc.
MANUFACTURER OF LCA-II

June 1, 2016

Bruce Baker
Apache Corporation
8 Ellison Lane
Eunice, NM 88231

Dear Bruce,

After your discussions with NMOCD and their concerns about the in-situ remediation of the emulsion line release in Loco Hills, I recommend the utilization of LCA-II and SuperAll using a closed-loop French drain to collect all the effluent. This is not only very easily accomplished, but also effective in eliminating contamination concerns. The plan is as follows:

1. Using a trencher, excavate three feet deep by 12 inches wide, following the path of contamination. Lay four inches of gravel in the bottom, and then lay the four-inch drain tile on top of the gravel. Follow with another four inches of gravel on top. The four-inch tile itself comes inside a cloth material to keep the holes in the tile from plugging up with any silt that may wash down in the process.

   After gravel is in place, back fill with the soil from the trench. Till the soil that will be under treatment. Place a frac tank at the bottom of the remediation area to collect the effluent generated by the process. The effluent can be hauled off for disposal.

2. The first application of product will be LCA-II diluted at a ratio of one part LCA-II to 20 parts effluent water purchased from the City of Hobbs. This is the same water they use for irrigating their parks and playgrounds.

3. One week following treatment, flush the site with effluent water.

4. Seven to ten days following the flush, treat again with LCA-II using the same procedure as in the first treatment. One week later, flush the site again .

5. A week following the second flush, apply SuperAll at their recommended dilution rate. There may be at little soil preparation required before or during the application of SuperAll.

6. Seven to ten days following treatment with SuperAll, flush the area with the remaining LCA-II diluted about 30:1 with effluent water.

This procedure will be very effective in remediating your site. It is also cost effective and safe for the environment. It is a win-win for all involved, even down to utilizing effluent water instead of depleting fresh water aquifers. As a foot note, you will be able to monitor the remediation progress by checking the effluent being collected in the frac tank.

Should you or anyone from the NMOCD or BLM have any questions or need additional information, please feel free to contact me.

Sincerely,

W.C. Clewett
Vice President

WCC/cc