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Subject: Apache State SWD #3

Date: Thursday, March 26, 2015 9:47:44 AM

Attachments: Appendix.pdf

Apache State SWD #3 UL/E sec. 30 T17S R31E

Path Forward

Apache Corporation (Apache) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

Background and Previous Work

The site is located approximately 3.9 miles east of Loco Hills, New Mexico at UL/E sec. 30 T17S R31E. The site is in an area of no known groundwater.

RECS personnel were on site beginning on March 4th, 2015, to assess the site. The release covered 24,937 square feet of lease pad and 20,289 square feet of pasture land (Figure 1). The wet material was scraped up from the battery pad and taken to a spoil pile. Six surface samples from the release were taken and field tested for chlorides and organic vapors. All samples returned elevated field chloride readings and low organic vapor readings. Four verticals were installed throughout the release to determine the depth of contamination. Vertical 1 was installed to 6 inches bgs, and the field test of the sample returned low chloride and organic vapor readings. Vertical 2 was installed to 2 ft bgs and was halted when a liner was discovered at 2.5 ft bgs. The verticals in the pasture were sampled every 6 inches until field chloride readings indicated that the bottom sample from each vertical would returned laboratory chloride readings below 250 mg/kg. The bottom samples from these two verticals were taken to a commercial laboratory for analyses. The analyses returned laboratory chloride readings below 250 mg/kg (Appendix A).

The release area in the pasture to the west was scraped down to 1 ft bgs, and the pasture area to south was scraped down to 1.5 ft bgs (Figure 2). Once the scrapes were completed, wall samples and a 5 point bottom composite sample of the west area and a 3 point bottom composite of the south area were taken and field tested for chlorides and organic vapors. The samples were then taken to a commercial laboratory for analyses. All samples returned laboratory chloride reading near or below 1,000 mg/kg, except for West Wall 4 located at the battery fence, which returned a chloride value of 1,680 mg/kg.

Path Forward

A large spoil pile remains at the site. Once the scrapes in the pasture have been approval to be

backfilled, the spoil pile will be washed. The contaminated water will be evaluated for use in future oilfield activities. A sample of the washed soil will be taken to a commercial laboratory to confirm that the chloride reading is near or below 1,000 mg/kg. The cleaned soil will be used to backfill the scrapes in the pasture. The remaining area in the pasture will then be scraped down to 1 ft bgs. Once the scrape is completed, bottom grab samples and wall samples from the scrape will be taken and field tested for chlorides and organic vapors. If the field data indicates that the grab samples will not achieve chloride readings below 1,000 mg/kg, the scrape will be deepened until field testing indicates that all samples from the bottom and wall samples will return chloride values below 1,000 mg/kg. The grab samples will then be taken to a commercial laboratory to confirm that the chloride readings are below 1,000 mg/kg.

The release area in the lease pad is partially located over the facility liner. In areas where the liner exists, the pad will be scraped down 6 inches. In areas where the liner does not exist, the pad will be scraped down as possible. There are known buried electrical lines in the area and scraping in this area will be completed so as not to endanger facility operations or field personnel. Once these scrapes are completed, the soil will be washed and backfilled into the scrapes.

Photo documentation of the initial release can be found in Appendix B.

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