

EXECUTIVE SUMMARY

Two USTs were removed from Site 26 between the 12th and the 19th of May 1988. Excavated soil was removed and replaced with clean fill. Soil samples were collected 2 ft below the native soil/backfill interface in accordance with Division of Environmental Response and Remediation (DERR) closure protocol. Soil samples from Tank 26-4 analyzed for Oil & Grease had concentrations ranging from 25 to 3,760 µg/kg. Soil samples from Tank 26-1 had Oil & Grease concentrations <30 µg/kg.

The purpose of the subsurface investigation was to gather data in accordance with 40 CFR 280 Subpart F (280.65). The objective of the investigation is to determine the vertical and horizontal extent of soil contaminated by the site release, and the presence and concentrations of potential product contamination of the groundwater.

The scope of work for the project identified five shallow (<35 ft) borings to be drilled and sampled. Additionally, one groundwater monitoring well was to be drilled and installed.

Based on field screening methodology, modification to the location and number of borings was made during the performance of field work. These changes were based on the review of headspace analyses conducted on soil samples collected from borings at Site 26. Headspace analysis was used to select soil samples for chemical analysis, estimated bottom depth of contaminate plume, and the depth drilling stopped. Through subsequent discussions with EMR (personal communication, October 1992) and review of the results of chemical analysis, an additional soil boring within the tank pit excavation of Tank 26-1 was drilled and soil samples collected.

Samples collected from soil boring 26SB-1 indicated elevated readings at 17 ft of depth for TPH, toluene, ethylbenzene, m,p-xylene, o-xylene, and naphthalene with concentration levels of 107 mg/kg, 35.1 µg/kg, 52.3 µg/kg, 661 µg/kg, 84.2 µg/kg, and 703 µg/kg, respectively. Samples were collected from soil boring 26SB-4 at the 14 ft, 20 ft, and 30 ft depths. Elevated concentrations of TPH and naphthalene were indicated at 14 ft, with concentrations of 1,590 mg/kg and 261 µg/kg, respectively. Concentration levels were below analytical detection limits for all compounds for samples collected at 20 ft and 30 ft.

The Utah DERR has established soil cleanup levels based on R450-101, the "Corrective Action Cleanup Standards Policy". Cleanup levels are based on a ranking system used by the DERR to assign sites to established cleanup groups. The recommended clean up levels (RCLs) take into consideration the potential impact of contamination on public health and the environment, cost effectiveness of the clean-up operation, and available technology.

Site 26 has been ranked by EA as a Level II site in accordance with DERR criteria. TPH concentrations of samples collected at the 17 ft depth of soil boring SB26-1 and the 14 ft depth of soil boring 26SB-4 are above Utah DERR RCLs for Level II sites. The other samples were either below analytical detection limits or below DERR RCLs for Level II sites.

Based on the information gathered during the Abatement and Initial Site Characterization and this subsurface investigation, Site 26 may require corrective action based on a strict interpretation of Utah DERR regulations. Methods of remediation might include some form of in situ bioremediation such as a combination of soil vapor extraction and biodegradation or soil excavation within the tank pits proper. Additional consideration should be given to a "no action" alternative based upon the localized extent of soil with elevated TPH concentrations and existing site conditions (i.e., low rainfall plus asphalt covered parking lot, depth to groundwater greater than 115 ft, and TPH concentrations below analytical detection limits at depths of 6-7 ft below backfill/native soil interface). A comparison of remediation techniques, including "no action", is appropriate in a Corrective Action Plan.