

## EXECUTIVE SUMMARY

This report was prepared to satisfy the requirements of the Utah Department of Environmental Quality (UDEQ) "Abatement and Initial Site Characterization Report Requirements" (AISCR), and "Subsurface Investigation Report Requirements" (PI).

The purpose of this report is to determine the presence or absence of petroleum hydrocarbon contamination in the subsurface resulting from two leaking underground storage tanks located just east of Building 1705 near the Tooele Rail Shop on Hill Air Force Base.

The site is located in the western section of Hill Air Force Base adjacent to the Tooele Rail Yard and just east of Building 1705. Two 1,000 gallon underground storage tanks designated 1705.1 and 1705.2 contained diesel fuel and leaded gasoline, respectively. The USTs were used for the fueling of vehicles and equipment. A pump station for dispensing fuel was located above the tanks, but has since been removed.

In June of 1991, Tanks 1705.1 and 1705.2 were tested for leaks, and both tanks failed the leak detection test. An Underground Storage Tank Closure Plan was prepared and submitted to the DERR on January 10, 1992. The DERR approved the Closure Plan on January 28, 1992. In March of 1992 the two tanks were removed. Soil samples taken from the excavation were analyzed for total petroleum hydrocarbons (TPH). The analytical results indicated TPH contamination in the center of the excavation. The condition of the excavated tanks was fairly good, and personnel inspecting the tanks believe that the contamination could have come from leaking piping, not necessarily from the tanks themselves.

The release of petroleum products from Site 1705 was reported via telephone to the DERR on June 20, 1991.

The extent of hydrocarbon contamination at the Building 1705 site appears to be limited to an area just south and west of where the tanks were located. The five samples taken from the excavation indicated that only one was contaminated, from the center of the excavation. That sample contained 2,440 ppm diesel/TPH. It did not contain gasoline above the detectable limit. Approximately 70 cubic yards of contaminated soil was sent to ET Technologies, of Salt Lake City, for disposal. The excavation was terminated when the backhoe could reach no further. Subsequent samples taken by Hill AFB personnel in the excavation indicated that some residual contamination still remained in the pit. The pit was then backfilled with clean fill.

Four hollow-stem auger borings were performed for this study. One was completed as a groundwater monitoring well; one as an air injection well; and two as soil vent probes. The water table was found to be approximately 25' below ground surface in this area. Nine soil samples and one water sample were taken from these borings. Of these samples, one was contaminated: the sample from air injection well VW-1 taken at ten feet. A second sample from the same boring taken from the 21 foot to 23 foot interval was not contaminated. None of the samples had detectible lead contamination.

The lack of lead contamination in all samples and the only contaminated excavation sample which had high diesel contamination indicate that most of the contamination was probably from tank 1705.1, the diesel tank, and not from 1705.2, the leaded gasoline tank. The contamination seems to be limited laterally to the central area of the tank excavation, about fifteen to twenty feet in diameter, and limited vertically to some depth above the water table, approximately twenty feet below ground surface. No detectible contaminant migration into the groundwater has occurred. The asphalt covering over the former excavation probably has inhibited downward migration due to leaching. The 70 cubic yards of soil which was excavated probably removed much of the contamination.

The limited extent of contamination and lack of contaminant migration into the groundwater indicates that this site does not pose an imminent threat to human health or the environment. Natural biodegradation will eventually mitigate the contamination. Air injection and vapor extraction appears to be the most practical method of active remediation for this site. The groundwater well should continued to be monitored.

A Corrective Action Plan will be prepared in which remedial alternatives will be evaluated. One additional groundwater sample will be taken and analyzed prior to completing the Corrective Action Plan.