

Contaminated soil planned for removal was excavated and disposed of during the 2009 removal action. Analysis of the remaining soil revealed DRO and RRO concentrations to be below the ADEC criterion (Lower Camp 250 mg/kg and 10,000 mg/kg, respectively). Because no fuel or hazardous substances were found at concentrations above applicable cleanup levels, Site SS006 requires no further action under state law and will be designated Cleanup Complete.

2.5.5.6 Site SS007 (Spill/Leak No. 5; AOC08 and AOC09)

Site SS007 (also known as Spill/Leak No. 5; AOC08 and AOC09) consists of the Temporary Air Terminal and the Warm Storage Building west of the runway at the Lower Camp; this site was reportedly used for the storage of supplies, maintenance materials, electrical equipment, and more than 26 known drums (USAF, 1989).

During the 1994 PA/SI, numerous areas of stained soil were documented. Surface soil samples collected from these areas contained DRO concentrations up to 7,540 mg/kg, above the ADEC cleanup level of 250 mg/kg. DRO was also detected in samples collected from nearby runoff water (3.78 mg/L) above the cleanup level of 1.5 mg/L and soil (454 mg/kg) above the soil cleanup level of 250 mg/kg (USAF 1995).

In the 1999 RI, four soil borings were installed and sampled for GRO, DRO, RRO, metals, pesticides, PCBs, VOCs, and SVOCs; two of these borings were also analyzed for dioxins. A surface water sample was collected and analyzed for the same list of analytes above, excluding dioxins. A soil sample was also analyzed for the same list, excluding VOCs. Fourteen surface and subsurface soil samples were taken from stained soil throughout the site and analyzed for DRO and RRO (USAF 2001). Surface soil sample results ranged from nondetect to 11,000 mg/kg DRO and from nondetect to 31,600 mg/kg RRO. A subsurface soil sample showed concentrations of DRO and RRO above the ADEC cleanup levels of 250 mg/kg and 10,000 mg/kg, respectively. The soil sample near the stained area contained 162 mg/kg DRO and 460 mg/kg RRO. Surface water from run-off indicated a presence of DRO and RRO. Hepta-chlorinated dibenzo-p-dioxins (total) were detected at low levels (127 mg/kg and 101 mg/kg) in two soil borings, northeast of the Warm Storage Building and southwest of

the Temporary Air Terminal; however, these had a total dioxin toxic equivalency of 1.98×10^{-8} (USAF 2001), below the toxicity equivalency factors established by the World Health Organization (0.0001 to 1 varying by congener).

In the 2008 RI, field screening and analytical sampling was performed in step-outs from the 1999 samples collected at the center points of the visibly stained soils to delineate the lateral extent of contamination. Since groundwater and surface water had been identified as a transport mechanism at the site, DRO and RRO results were compared to the Lower Camp ADEC Method Two criteria of 250 and 10,000 mg/kg, respectively. Approximately 160 cubic yards of DRO- and RRO-contaminated soil extending to 3 feet bgs was discovered.

In the 2009 Clean Sweep Operation (USAF 2010), approximately 630 cubic yards of stained and contaminated soil was excavated and transported to a designated land spreading area in the Granite Mountain disposal area at the Upper Camp. The Warm Storage Building excavation merged with two adjacent excavations to the east to form one large excavation, which brought the total number of excavations to seven. The vertical extents of the seven excavations were constrained by the depth of the contamination and, in two cases, depth to permafrost and tundra. Following land spreading, the soil was configured into stockpiles and sampled. The analytical results from stockpile sampling indicated that DRO/RRO concentrations in the soil were below the ADEC criteria for the Upper Camp (10,250/10,000 mg/kg), and the 630 cubic yards of soil was used as cover in the new onsite disposal area at the Upper Camp. Five of the remediated excavations were small surface spills that were removed by the excavator bucket with one to two passes. Confirmation samples collected from each of these five excavations indicated that DRO/RRO concentrations in the soil were below ADEC criteria (Lower Camp 250/10,000 mg/kg). The vertical extent of the Air Terminal excavation met native tundra and clean gravel. Confirmation samples from this excavation also revealed DRO/RRO concentrations below the ADEC cleanup criteria (Lower Camp 250/10,000 mg/kg). The Warehouse excavation, encompassing the warehouse area and two nearby spills to the east, bottomed out in clean gravel and permafrost. Confirmation samples from this excavation indicated that the 95 percent UCL on the mean concentrations

of DRO and RRO in the soil were below the cleanup level. The site was backfilled and graded.

Contaminated soil planned for removal was excavated and disposed of during the 2009 removal action. Analysis of the remaining soil revealed DRO and RRO concentrations to be below the ADEC criteria (Lower Camp 250 mg/kg and 10,000 mg/kg, respectively). Because no fuel or hazardous substances were found at concentrations above applicable cleanup levels, SS007 requires no further action under state law and will be designated Cleanup Complete.

2.5.5.7 Site WP008 (Septic Tank and Discharge System; AOC11)

Site WP008 (also known as Septic Tank and Discharge System; AOC11) consists of the septic tank system for the Upper Camp and is located south of the two diesel ASTs at Site SS005 and east of the Dormitory Building. The system is comprised of a 13,200-gallon holding tank that received wastes from the Equipment Building and Dormitory and an 8-inch steel discharge pipe that exits near the top and extends approximately 80 feet to the edge of the steep slope at the perimeter of the Upper Camp. During system operation, liquids discharged to the outfall would have fallen onto a concrete splash pad then drained down the steep rocky slope to the east.

During the 1994 PA/SI, one surface soil sample was collected from heavily stained soils near the system outfall discharge pipe, and one sludge sample was collected from the septic tank contents. The soil sample contained a DRO concentration of 929 mg/kg. Levels below the ADEC cleanup criteria of VOCs and SVOCs, lead at 920 mg/kg, and DRO at 13,300 mg/kg were detected in the tank sludge sample (USAF 1995).

In the 2001 RI, soil samples were collected to determine the nature and extent of potential contamination at WP008. A visual inspection of the septic tank and associated pipes did not reveal any staining or other indications of system failure or leaking. The access cover on top of the septic tank was missing, exposing the inside of the tank. An estimated 4- to 8-inch, 1- to 2-cy layer of dry black sludge was evident in the bottom of the tank. The discharge piping was intact and lay at the bottom of a 4- to 6-foot trench lined with coarse sand and pea gravel.