



CARSWELL/PLANT 4 RESTORATION ADVISORY BOARD

**Fact Sheet #6
November 4, 1999**

NAS FORT WORTH JOINT RESERVE BASE (JRB) INSTALLATION RESTORATION PROGRAM (IRP)

This is the sixth in a series of fact sheets focusing on the Installation Restoration Program (IRP) at the Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB). The NAS Fort Worth JRB, formerly Carswell Air Force Base, is in the process of planning and conducting activities for the identification, remediation, and closure of contaminated sites at the base.

The IRP is the Department of Defense's (DoD) primary mechanism for environmental response actions on U.S. Air Force installations. IRP activities are governed by provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and other applicable Federal and state regulations. These activities are being conducted through the combined efforts of the Air Force Center for Environmental Excellence (AFCEE) and the Air Force Base Conversion Agency (AFBCA). Under provisions of the RCRA, the Air Force identified 68 solid waste management units (SWMU) and 19 areas of concern (AOC) for further study and cleanup, if necessary.

CARSWELL ON-BASE

SOLID WASTE MANAGEMENT UNITS 19, 20, 21, 49, 50, 53 AND AREAS OF CONCERN 17, 18, and 19 INVESTIGATION

Site reconnaissance was completed in July for the following areas: Fire Training Area No. 2 (SWMU 19), an aboveground waste fuel storage tank (SWMU 20), an underground storage tank (SWMU 21), two aircraft washing areas (SWMUs 49 and 50), the storm water drainage system (SWMU 53), a former landfill (AOC 17), and two additional former fire training areas (AOCs 18 and 19). Work plans for the investigation of these sites will be submitted to AFCEE in the fall of 1999.

BASEWIDE GROUNDWATER MONITORING CONTINUES

The Air Force samples groundwater at basewide locations four times a year to monitor the status of the contaminant plumes and to provide information for establishing trends. The current program (called Basewide Quarterly Groundwater Sampling and Analysis Program, or GSAP) has been in place since April 1995. Quarterly events occur in January, April, July, and October of each year. The most recent round of quarterly monitoring was completed in October 1999. The results of the April 1999 Event were

submitted to the Texas Natural Resource Conservation Commission (TNRCC) in October and results of the July 1999 Event were submitted to AFCEE in September 1999.

RCRA FACILITY INVESTIGATION OF LANDFILLS CONTINUES

RCRA Facility Investigations (RFI) continue at seven former landfills, also known as SWMUs. These landfills include Landfill No. 7 (SWMU 17), Landfill No. 3 (SWMU 26), Landfill No. 10 (SWMU 27), Landfill No. 1 (SWMU 28), Landfill No. 2 (SWMU 29), Landfill No. 9 (SWMU 30), and Landfill No. 6 (SWMU 62). The results of the RFIs will determine if a source of potential contamination exists and if the source has impacted the soil, groundwater, surface water, or sediments at or near each landfill. Groundwater samples were collected during August and September from Landfills 1 and 9 and from Landfill 9 in October. A response to comments from the May meeting with the TNRCC that discussed the status of the landfills and proposed additional field efforts was prepared and presented to the regulators in September.

WASTE ACCUMULATION AREA INVESTIGATION FIELD WORK

The initial field investigation of 16 Waste Accumulation Areas (WAA) was completed in June. Direct Push Technology was used to collect soil samples from approximately 50 soil borings, which were sampled every 5 feet from ground surface to the top of the water table. A Technical Memorandum that will present the results of the initial investigation and propose plans for additional soil delineation and groundwater sampling at several of the sites will be submitted to AFCEE in the fall. When delineation at all of the sites is complete, the results of the entire investigation will be compiled in an RFI report with recommendations for closure.

UNDERGROUND STORAGE TANK INVESTIGATION FIELD WORK

Field work for the initial investigation of 12 underground storage tanks (UST) was completed in June. The work included conducting a geophysical and soil gas survey, collecting groundwater samples from previously installed monitoring wells, and advancing approximately 50 borings using Direct Push Technology to collect soil samples from the former UST sites. A Technical Memorandum will be submitted to AFCEE in the fall that will present the results of the initial investigation and propose plans for additional soil delineation and groundwater sampling at several of the sites. When delineation of the contamination is complete at each UST site, the results of the investigation will be compiled and presented in a Site Investigation (SI) report, and TNRCC reporting forms will be submitted for closure.

CORRECTIVE MEASURES PROPOSED FOR AREA OF CONCERN 13

Site investigations were completed in 1998 for AOC 13. AOC 13 consists of an oil/water separator (OWS) and an associated UST at Building 1145, the base hobby shop. Results of the site investigations revealed and delineated a petroleum plume beneath the OWS system. The OWS and UST will be removed to eliminate the source of the contamination and to expedite closure of AOC 13. Following removal, the OWS and UST will be replaced with a new system. Design documents to remove and replace the system were submitted to AFCEE and the Navy last month.

AREA OF CONCERN 4 SITE INVESTIGATION REPORT

AOC 4 includes the area of the former fuel hydrant system at the base. The fuel hydrant system was used to transfer aviation fuel from the bulk storage facility to fuel hydrants located along the flightline. The fuel hydrant system was removed from service in 1994. During the removal of the system, contamination from the chemicals that comprise aviation fuel was detected. The field effort for AOC 4 was completed in January of this year, and the Draft SI Report and Assessment Report Form were submitted to the TNRCC in August. Recommendations presented in these documents include continued weekly product removal and quarterly groundwater monitoring at the site for one year. After one year, AOC 4 will be re-evaluated for closure using the Plan A Early Exit Criteria, and either a site closure report will be submitted for regulatory review or further actions will be recommended.

GROUNDWATER MONITORING WELL ABANDONMENT AND REPAIR

More than 300 monitoring wells exist at NAS Fort Worth JRB. Well maintenance is essential to prevent vertical migration of contamination and to ensure the integrity of the groundwater samples collected from each monitoring well. An inspection of the monitoring wells at NAS Fort Worth JRB was conducted in June, and minor repairs were performed at that time. Last month, work plans were prepared and submitted to AFCEE for monitoring wells which require abandonment or more extensive repairs. The work plans provide a list of the monitoring wells to be abandoned or repaired, the rationale for selecting these wells, and a discussion of the regulatory requirements. Under these work plans, 11 monitoring wells are scheduled for abandonment, 3 monitoring wells are scheduled for repair, and 2 monitoring wells will be converted to flush mount.

NO FURTHER ACTION REQUESTED AT SWMU 7 AND SWMU 8

A Draft Technical Memorandum was submitted for regulatory review to provide justification for no further action at SWMU 7 and SWMU 8. The Technical Memorandum provides descriptions and operational histories of SWMU 7 (the Building 1628 OWS) and SWMU 8 (an associated UST), descriptions of the wastes handled, and summaries of the initial assessments and investigations focused on recognizing any potential contamination resulting from the sites. SWMU 7 and SWMU 8 were recommended for No Further Action (NFA) based on the conclusion that a release of hazardous constituents from either site did not occur. Previous assessments and investigations showed no evidence of contamination of the soil or groundwater from either SWMU. All wastes handled at SWMU 7 and SWMU 8 were considered to have been well managed prior to their disposal, and proper release controls were in place.

ONLINE DOCUMENTS FOR CARSWELL

All documents published in the Carswell Administrative Record/Information Repository can be obtained from the web site hosted by HydroGeoLogic, Inc., for the Carswell AFB Restoration Advisory Board. The address is nasfw.hgl.com.

CARSWELL OFF-BASE

RCRA FACILITY INVESTIGATION OF LANDFILLS

The RFI continues at 4 former landfills. These landfills include Landfills No. 4, 5, 8, and Waste Pile 07. Further sampling took place in October 1999. This sampling data will assist in the landfill delineation process. Preliminary results indicate that Landfill 8 is larger than originally estimated. Two additional monitoring wells were installed downgradient of Landfill 8 to ensure that no contaminant migration emanates from the landfill. The results of the RFI will be used to determine which TNRCC Risk Reduction Standard (RRS) is appropriate for closure of the units. If all values are below background, then a request will be forwarded to the TNRCC for no further action. If the sites have constituents above background concentrations, then additional efforts will be required that may include the remediation of the sites. For sites that require remediation, Corrective Measures Studies will commence as soon as landfill contaminant delineation is complete.

SANITARY SEWER SYSTEM RFI

Funding to complete Phase II of the RFI is expected in December. Phase II includes soil and groundwater sampling and the installation of eight new monitoring wells to determine the nature and extent of contamination. This field effort is scheduled for the spring of 2000. The results of the RFI will be used to determine which TNRCC RRS is appropriate for closure of the unit. If the values are all below background, then a closure with no further action will be requested. If the sites have chemicals above background concentrations, then additional efforts will be accomplished that may include remediation of the sites.

OFFSITE WEAPON STORAGE AREA

Minimal remediation, including soil excavation in limited areas, took place in August. Additional remedial work is scheduled for the middle of this month, and a site closure report is scheduled to be submitted to the regulatory agencies in late December 1999.

GOLF COURSE MAINTENANCE YARD, UNNAMED STREAM, GROUNDS MAINTENANCE YARD, AND AEROSPACE MUSEUM

- Site closure was granted by the TNRCC for the Golf Course Maintenance Yard.
- The closure report for the Unnamed Stream is awaiting comments from the regulatory agencies.
- Further sampling is planned to fully delineate certain analytes at the Grounds Maintenance Yard and Aerospace Museum.

PROPERTY TRANSFERS

- Property transfer at the Federal Bureau of Prisons is awaiting site closures for tank removals from the Petroleum Storage Tank division of the TNRCC.
- The Carswell Business Park property transfer is in progress.

AIR FORCE PLANT 4

TCE PLUME INVESTIGATION

As part of the investigation of the southern lobe of the trichloroethene (TCE) plume, seven wells (four recovery and three monitoring wells) were installed off-base near the former Carswell AFB southwest boundary in June with two additional recovery wells installed in August. The second of three rounds of groundwater samples were collected from these wells in September to determine the nature and extent of potential groundwater contamination. The final round of sampling will be conducted this month. TCE concentrations in groundwater collected during the first round of sampling from the new wells range from below detection limits to 42 $\mu\text{g/L}$. With this new data, the extent of the plume has been further defined along the eastern edge of the golf course near Route 183 and White Settlement Road.

GROUNDWATER TREATMENT SYSTEM UPGRADE

A groundwater extraction system, designed to intercept TCE contaminated groundwater and prevent the plume from migrating beyond the Carswell AFB boundary, was installed at the Carswell Golf Course where White Settlement Road meets the flightline area of NAS Fort Worth JRB. The pump-and-treat system became operational in December 1993; however, it was shut down in August of 1998 until repairs could be implemented. Upgrades were completed, and the system was placed back in operation on September 13, 1999. Currently, all permit discharge limitations are being met.

FOR MORE INFORMATION

If you would like more information, please see our web site at nasfw.hgl.com or contact the following individuals.

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