



**NAVAL AIR STATION
FORT WORTH JRB
CARSWELL FIELD
TEXAS**

**ADMINISTRATIVE RECORD
COVER SHEET**

AR File Number 537

**Carswell/Plant 4
Restoration Advisory Board Meeting**

537

DRAFT
Summary Minutes of August 10, 2000
Regular Quarterly Meeting

A regular meeting of the Carswell/Plant 4 Restoration Advisory Board (RAB) was held August 10, 2000, at the Desert Storm Conference Center, 2570 Desert Storm Road, located on the Naval Air Station (NAS) Fort Worth Joint Reserve Base (JRB). The RAB meeting began at 6:00 p.m.

Agenda

- Welcome/Introductions/Minutes
- Westworth Redevelopment Authority (Leland Clemons)
 - Program Update
- Carswell Off-Base (Rafael Vazquez)
 - Program Update
 - Property Transfer Update
- Carswell On-Base (Mike Dodyk)
 - Project Status and Progress Update
- Air Force Plant 4 (George Walters)
 - Project Update
- RAB Charter Discussion (Dan Johnson)
- Next Meeting Agenda
- Open Discussion/Questions

Welcome and Introduction of Attendees

Community Co-Chair J'Nell Pate called the meeting to order and introductions were made. Ms. Pate asked that any corrections or additions be presented regarding the May 2000 RAB Meeting Minutes. Hearing none, the minutes from the previous meeting were approved.

Comments regarding the draft meeting minutes for this meeting (August 10, 2000) should be sent to:

Ms. Valerie Eisenstein
HydroGeoLogic, Inc.
1155 Herndon Parkway, Suite 900
Herndon, Virginia 20170

Phone: (703) 736-4513
Fax: (703) 471-4180
e-mail: vke@hgl.com

Carswell Off-Base

The order of speakers as listed on the agenda was modified slightly, and Ms. Pate introduced Rafael Vazquez who conducted the Carswell Off-Base briefing. A copy of the briefing and a fact sheet outlining the Carswell Off-Base program status were available (Attachments 1 & 2).

Program Update

Mr. Vazquez began his presentation by providing an update on the environmental cleanup occurring at the Carswell Off-Base site. The golf course and former horse stables area have been transferred to the Westworth Redevelopment Authority. Mr. Vazquez discussed the reports being written for these two sites. In addition he discussed the Weapons Storage Area, which is located about 5 miles down the road from NAS Fort Worth; the Sanitary Sewer Investigations; and Landfill Investigations.

Mr. Vazquez indicated that additional investigations are needed for the Aerospace Museum and Grounds Maintenance Yard. The Aerospace Museum is located next to Highway 183 and the Grounds Maintenance Yard is located near the main gate. He mentioned that hits of lead and zinc required further investigation, and upon completion of the surveys, revised closure reports will be submitted to the regulators in December 2000.

Mr. Vazquez discussed the status of the Weapons Storage Area. Additional fieldwork was necessary to finish the soil excavation investigation, and closure reports have been submitted to the regulators. Upon approval of the closure reports, the property will be sold through the GSA (General Service Administration). Mr. Gross, a community member, inquired about the investigations being conducted at the Weapons Storage Area. Mr. Gross explained that Mr. Vazquez had mentioned 3 years ago that there was no environmental problem at the Weapons Storage Area, and 3 years later work is still being conducted at this site. Mr. Vazquez explained that some leaking underground storage tanks existed on this site as well as lead from lead-based paint and asbestos, which needed to be cleaned up. In addition, there is an EOD (Explosive Ordnance Disposal) range present. Clean up has been completed, and the final report has been submitted for closure.

Mr. Vazquez provided an update on the Basewide Sanitary Sewer Investigations covering the NAS Fort Worth and the Base Realignment and Closure (BRAC)/Carswell areas. During the first phase, Phase I that was conducted on the manholes, there were hits in soil requiring further investigation. A Phase II investigation was initiated; however, video surveys of the sewer lines conducted by the Navy identified additional concerns (i.e., line breaks), which were not previously investigated. Therefore, a Phase III investigation work plan is in the process of being prepared, and sampling is scheduled to begin next month. Completion of the Sanitary Sewer Investigation and closure reports tentatively are scheduled to be completed by July 2001 and, once approved, the property will be transferred to and maintained by the Navy.

Mr. Vazquez indicated that a lot of time has been spent working on the Landfill 4, 5, 8, and Waste Pile 7 Investigations. All four sites are located by the fence separating the golf course and NAS Fort Worth. Additional groundwater and soil sampling is required to complete the Resource Conservation and Recovery Act (RCRA) Facility Investigations

(RFI), which is necessary to close these sites. Mr. Vazquez mentioned that a Draft RFI Report is scheduled to be released in 2 weeks (August 2000). The Corrective Measures Implementation (CMI) design for soils was completed in July 2000, and construction is almost complete for the two landfills requiring clay caps.

Landfill 4 is located inside the golf course area, and Landfill 5 is located on NAS Fort Worth JRB, next to the runway. Both sites contained hot spots and medical waste in the soil. Contaminated soils were removed and a 2-foot clay cap was installed because of the medical waste found. After the clay cap is finished, 2-3 inches of topsoil and grass will be placed on top of the clay cap. Construction of the cap should be completed next week for both landfills.

Four areas within Landfill 8 contained lead in the soil and are being excavated. Mr. Vazquez indicated that one of the excavated areas measured 2-feet long by 8-feet deep by 2-feet wide. There are two more areas to be excavated, and upon excavation, the soil will be staged, tested, and then disposed of properly.

Mr. Olshefski, a community member, inquired about the location of the soil disposal. Mr. Vazquez replied that the soil is disposed at an approved landfill based upon what contaminants are identified. Some landfills burn the soils to clean them so they can be reused. Mr. Vazquez indicated that he would get back to him regarding the location at which the soil is disposed. Charles Pringle, Headquarters/Air Force Center for Environmental Excellence/Environmental Restoration BRAC (HQ/AFCEE/ERB), indicated that the soil is manifested and then sent to an authorized facility. If proper disposal of the contaminated soil is not followed, Air Force representatives could go to jail or be fined for improper disposal. The contaminated soil is sent to an approved State- and Environmental Protection Agency (EPA)-approved facility.

Waste Pile 7 is one of the smallest landfill investigation sites. In October 1991, the U.S. Corps of Engineers (COE) installed a telephone pole in the area and discovered a liquid in the ground. The COE conducted an electromagnetic (EM) survey to locate buried drums. Mr. Vazquez indicated that the COE removed 34 drums, 9 partially full and 25 empty. The contaminated soil also was excavated, and upon analysis, the drums were found to contain trichloroethylene (TCE) and perchloroethylene (PCE).

In April 2000, the Air Force Base Conversion Agency (AFBCA) contracted IT Corporation to conduct an additional electromagnetic survey to confirm the removal of all buried drums. The survey showed two locations with high probability of metals in the ground and five locations with medium probability of metals. In July 2000, IT Corporation excavated the high probability areas and 21 drums were found. Of the 21 drums, 17 were empty and 3 were partially full with trichloroethylene and petroleum products. However, one drum contained a powdery substance, which was the sludge from a cleaning bath and turned out to be composed of TCE and petroleum products. During the excavation, one of the drums ruptured and spilled. The drum was contained, and the contaminated soil is being excavated. The excavation is almost complete.

Mr. Vazquez indicated that similar excavation procedures were performed on the five medium probability areas; however, only rebar and metal pipes were found. He mentioned

that an excavation was performed on two additional areas outside of the seven high and medium areas because of the presence of lead and chromium in the soil. These two additional areas were in the original excavation plan prior to IT Corporation discovering the additional drums. Mr. Vazquez noted that additional sampling follows every excavation, which consists of collecting samples from the walls and bottom of the excavation area. Two additional wells were installed inside the unit. A final electromagnetic survey was conducted to confirm the removal of all drums. No additional areas of metallic anomalies were identified even after the survey area was expanded outside the unit. Mr. Vazquez presented several photographs of the drums found. Some of the drums had labels on them, including the one that ruptured. The company name on the label was Detrex Chemical. When contacted, Detrex Chemical had no records on file for selling anything to Carswell Air Force Base (AFB) in the past.

Mr. Vazquez mentioned that Landfill 4, 5, 8, and Waste Pile 7 are the last landfills on which BRAC is working. Extensive surveys have been done on the BRAC property and the off-site properties. Completion of the clean up is expected to be within the next 2 months, with the exception of the Sanitary Sewer, which is going to take longer. Mr. Vazquez asked if there were additional questions regarding the program update. No questions were posed.

Mr. Vazquez then briefly discussed the property transfer status. The Federal Bureau of Prisons Hospital was transferred to the Federal Bureau of Prisons in July 2000. A package was sent to the Navy to initiate the property transfer of various land transfers and they are reviewing the environmental issues before the property is accepted. The Kings Branch Housing Area is located across Highway 183 and White Settlement Road, and the transfer of that property should be complete by the end of August, since there were no environmental issues other than the lead-based paint and asbestos. Once the Weapons Storage Area is approved for closure it will be put up for sale, and this is expected to occur by the end of the year. The horse stables area also is going to be transferred by the end of this year, since there are also no environmental issues associated with that property. The golf course will be the last property transferred since the groundwater contamination remains to be addressed. This property transfer will take a few years to complete.

Mr. Olshefski, a community member, asked Mr. Vazquez if the property transfers included the school. Mr. Vazquez indicated that the school was transferred to Westworth Redevelopment Authority about 6 months ago. The Carswell business area consists of about 80 acres, and the Westworth Redevelopment Authority is selling that area. In addition, the Westworth Redevelopment Authority has had use of the houses for the last 2 years, and the Westworth Redevelopment Authority is conducting the disposal of the houses. Mr. Vazquez asked if there were additional questions regarding the property transfer update. No questions were posed.

Carswell On-Base

Ms. Pate introduced Michael Dodyk to provide a program update on the work being conducted On-Base at the former Carswell Air Force Base. Handouts were available outlining the Carswell On-Base program update (Attachment 3).

Project Update

Mr. Dodyk provided a brief history of why the Air Force is conducting the environmental cleanup. He mentioned that the Installation Restoration Program (IRP) began when Carswell AFB was officially closed on September 30, 1993. At the time of closure, a large portion of Carswell AFB was transferred to the Navy and renamed Naval Air Station (NAS) Fort Worth Joint Reserve Base (JRB). Before completion of the property transfer, environmental investigations of potentially contaminated sites related to Air Force activities prior to October 1, 1993, were required to be completed and contaminated sites remediated. The Air Force assigned Air Force Center for Environmental Excellence (AFCEE) management and implementation responsibility for completing the IRP on the NAS Fort Worth JRB property.

Mr. Dodyk mentioned that the former Carswell AFB was issued a RCRA Permit by the Texas Natural Resource Conservation Commission (TNRCC) requiring a RCRA Facility Investigation of all Solid Waste Management Units (SWMU) listed in Permit Provision VIII, as well as any SWMUs subsequently added to the list. Of the 56 sites, AFCEE is investigating and remediating a total of 43 SWMUs and 13 Areas of Concern (AOC). Thus far, 4 of the 56 sites have been officially closed by the TNRCC. All other sites are at varying stages of investigation or corrective action. The remaining SWMUs and AOCs requiring investigation are 7 Landfills; 16 waste accumulation areas (WAA); 3 fire training areas; 15 Oil/Water Separators (OWS); 3 fueling stations; a petroleum, oils, and lubricants (POL) tank farm; and various other locations and structures where contaminants potentially may have been released into the environment.

Mr. Dodyk indicated that the AFCEE Home Page contains information regarding the NAS Fort Worth JRB IRP Administrative Record and referenced the handout (Attachment 2) that contains the web address and directions to find the NAS Fort Worth JRB web page (<http://www.afcee.brooks.af.mil/er/carswell/nasfw/>).

Mr. Dodyk discussed the Risk Reduction Standards (RRS) indicating that the TNRCC is the lead regulatory agency and the EPA Region VI is the secondary oversight for the IRP at NAS Fort Worth JRB. He mentioned that the RFI findings are being evaluated using the Texas Risk Reduction Standards. Closure can be obtained under three different standards. Risk Reduction Standard 1 (RRS-1) approximates a no release condition. Risk Reduction Standard 2 (RRS-2) implies a limited release posing no significant threat to groundwater, human health, or the environment. Under RRS-2, institutional controls are required, but no corrective action needs to be performed. Relative Risk Standard 3 (RRS-3) indicates a release with the potential to impact groundwater and threaten human health or the environment. Under RRS-3, formal risk assessments and/or corrective measures are usually required.

Mr. Dodyk discussed the investigation performed thus far on the former Carswell AFB. The Phase III investigation for Landfills 1, 2, 3, 6, 7, and 9 was completed in June 2000. Additional fieldwork is planned for the Fall 2000. Landfill RFI Reports are planned for submission to AFCEE later this year, pending the successful completion of delineation activities.

Mr. Dodyk presented a map containing NAS Fort Worth JRB Landfill locations. He indicated that the WAAs have had a Phase II field effort performed on 9 of the 16 WAAs. The Phase II investigation included soil and groundwater sampling. The AFCEE Contractor currently is evaluating the analytical results. One additional round of groundwater sampling is scheduled for August 2000. An RFI report recommending 'no further action' was submitted to the TNRCC in July 2000 for the seven remaining WAAs. Mr. Dodyk presented a map identifying all WAAs.

Next, Mr. Dodyk talked about SWMUs 7 and 8, which are related since SWMU 7 is the Oil/Water Separator that services Building 1628, and SWMU 8 is the waste oil underground storage tank (UST) that contained the oil that was separated by the OWS. Mr. Dodyk indicated that in January 2000, a Final Closure Report was submitted to the TNRCC requesting a determination of "No Further Action" (NFA) based upon the conclusion that there was no release of hazardous constituents from SWMU 7 or 8. In February 2000, the TNRCC requested additional groundwater sampling for confirmation of no release. In April 2000, these results were submitted to the TNRCC confirming again that there was no evidence of release of hazardous constituents. In July 2000, the site closure request for SWMU 7 and 8 was approved by the TNRCC. Mr. Dodyk presented a map identifying SWMUs 7 and 8.

Mr. Dodyk discussed the initial field investigations that were completed in June 2000 at SWMUs 19, 20, 21, and 53 and AOCs 17, 18, and 19. SWMUs 19, 20, and 21 are associated with former fire training area No. 2. SWMU 53 is the storm water drainage system that services the eastern side of the base. AOC 17 is a suspected landfill based on old aerial photographs, and AOCs 18 and 19 are suspected former fire training areas, also based on old aerial photographs. Geophysical surveys and soil sampling was performed at the above suspected sites, and additional sampling may be necessary upon review of the current data. Mr. Dodyk presented a map identifying SWMUs 19, 20, 21, and 53 and AOCs 17, 18, and 19.

Mr. Dodyk reviewed the UST Investigation information. Five USTs had Final Investigation Summaries submitted to the TNRCC for closure in March 2000. A Final Release Determination Report for the UST at Building 1427 was submitted to the TNRCC in July 2000, and a Plan A Site Assessment is proposed as the next appropriate action for this tank. Additional soil and or groundwater sampling was completed at six USTs in May 2000. A "No Further Action" request for these sites will be submitted to the TNRCC by September 2000. Mr. Dodyk presented a map identifying USTs.

Mr. Dodyk noted that additional USTs are located all over the base. The Former Base Service and Gas Station is referred to as AOC 1. Three wells were installed off base in May 2000 near the river to delineate contamination in groundwater emanating from AOC 1. Semi-annual groundwater sampling of the newly-installed wells and existing wells began in April/May 2000. A Final Site Assessment Report will be submitted to the TNRCC in September 2000 for SWMU 68, the POL tank farm; and AOC 7, the Former Base Refueling Area. Semi-annual groundwater sampling began in April 2000, while weekly product recovery continues as necessary.

Mr. Dodyk discussed AOC 4, the Former Fuel Hydrant System, which is located in the flightline area near where the bombers used to be parked. A Draft Site Investigation Report and an Assessment Report Form were submitted to the TNRCC in August 1999. Weekly product removal was performed in 1999, as well as quarterly groundwater monitoring for a year. Mr. Dodyk indicated that the Final Annual Groundwater Sampling Report for 1999 was submitted to the TNRCC in July 2000. He noted that groundwater sampling is performed semi annually and began April of this year. Weekly product removal is performed as necessary. Mr. Dodyk presented a map identifying AOC 1, 4 and 7 and SWMU 68.

Mr. Dodyk discussed the Corrective Measures Investigation that is being performed at AOC 13 (Building 1145 - Automotive Hobby Shop). Previous investigations determined that the OWS had leaked. In May and June of this year, the old OWS was removed and replaced with a new one. An excavation of the contaminated soil and confirmation samples were collected on excavation sidewalls. The analytical results currently are being evaluated to determine if additional sampling will be necessary. Mr. Dodyk showed a figure containing the location of the OWS and UST located behind Building 1145. During the OWS and UST removal, some oil leaked out into the groundwater. Contaminated groundwater was removed via a pump truck. Once the excavation was complete and confirmation samples were collected off the sidewalls, the hole was back filled with crushed rock, and the new OWS was installed. Mr. Dodyk supplied photographs of various stages of the excavation.

Mr. Gross, a community member, inquired as to why the Occupational Safety and Health Administration (OSHA) didn't impose the apparent violations for the excavation and lack of railings? Mr. Dodyk replied that the pictures do not show the designated warning areas, and railings were not necessary because except for this one instance where the pump truck is sucking out the contaminated groundwater, nobody was near the edge of the excavation. He added that no one was in danger of falling in, and nobody ever went into the excavation. Other than the workers there, nobody could get anywhere near there. Mr. Pringle, HQ/AFCEE/ERB, stated that before this type of work is approved, a Safety and Health Plan must be written which takes into consideration accidents that may occur. Prior to beginning the work, the Safety and Health Plan must be approved by OSHA, as well as the Air Force. Mr. Pringle added that the work area is an exclusion zone, and no one is allowed in that area unless they have been trained and are OSHA certified. Tim Sewell with TNRCC is the on-site Health and Safety person who verifies that all work is performed according to the approved Safety and Health Plan. If violations are made, OSHA can close the job down and fine the Air Force. Mr. Gross indicated that he was surprised a fine was not imposed.

Mr. Dodyk indicated that the work plans for performing field investigations for SWMUs 45, 54, and 55 were submitted to AFCEE in July 2000. He noted that SWMU 45 is the waste oil tank vault, SWMU 54 is five storm water interceptors, and SWMU 55 is the East Gate Oil/Water Separator. The technical approach for the proposed plan of action was presented to the TNRCC earlier today, and the field investigation will begin later this month. Mr. Dodyk displayed a map identifying the locations of SWMUs 45, 54, and 55.

Next, Mr. Dodyk reviewed the status of the OWS RFI. He indicated that IT Corporation has completed the Phase II field investigations, which included soil and groundwater sampling at 11 Oil/Water Separators. Results are being evaluated with recommendations

for site closure and additional investigation requirements. Recommendations will be submitted to AFCEE in August of this year.

Finally, Mr. Dodyk discussed the status of the Groundwater Sampling and Analysis Program (GSAP). He mentioned that the Draft April 2000 Quarterly Report was submitted to AFCEE in July. The report presents plume characteristics and trends from the 33 groundwater wells sampled during the April 2000 groundwater sampling event. Mr. Dodyk added that in addition to the quarterly groundwater monitoring, 14 monitoring wells were abandoned upon determining that there was no contamination, and 5 wells were repaired in June 2000. He noted that State approval is required to plug and abandon wells.

Mr. Dodyk asked if there were additional questions. No questions were posed.

Air Force Plant 4

Ms. Pate introduced George Walters to provide an update on the ongoing activities that are occurring at Air Force Plant 4 (AFP 4). Mr. Walters indicated that he is from Wright-Patterson Air Force Base, Dayton, Ohio. Air Force Plant 4 is managed out of Wright-Patterson AFB. Handouts were provided outlining the AFP 4 program status (Attachment 4).

Project Update

Mr. Walters began his discussion by identifying the four topics he would be covering -- Lake Worth follow-up testing, East Parking Lot update, six-phase heating at Building 181, and a small project being conducted to see if the taxpayers can be saved money in the long run on systems being used. Mr. Walters displayed photographs of AFP 4 identifying the four areas of interest. AFP 4 is about 600 acres and the main building is a mile long. A tour of Building 181 was given last August. A tour may be given this November of the East parking lot treatment system.

Mr. Walters indicated that because of public interest regarding the Lake Worth fish tissue sampling at the May 2000 RAB meeting, he requested additional money to perform Lake Worth sediment sampling. Dr. Peter Van Metre of the Austin U.S. Geological Survey (USGS) performs the sediment sampling, and Mr. Walters indicated that the Air Force would try to coordinate sampling efforts that Mr. Camp, City of Fort Worth Environmental Management Department, has scheduled for the surrounding Fort Worth lakes to cut costs. This study will cost \$200,000 and will consist of roughly 18 sediment samples all over Lake Worth focusing on polychlorinated biphenyls (PCB) and whether additional contaminants are continuing to migrate into Lake Worth. Samples will be collected where tributaries come into Lake Worth, including Carswell AFB and northern areas to provide background reference numbers. Mr. Walters mentioned that he has some information regarding radioactive fall out and how it is dated in sediments. For example, back in the 1960-1970s there was lead in the soil because of the presence of lead in gasoline. Now that lead is no longer an additive to gasoline, it has relatively disappeared in the sediment. He added that the briefing on the sediment sampling results should be very interesting and would indicate exactly what is in the sediment.

Mr. Stanley from the City of Fort Worth asked when the sediment sampling would occur. Mr. Walters indicated that Mr. Camp estimates that it will begin roughly in the October or November timeframe. He noted that he is in the process of transferring money to Dr. Van Metre, while working with Sonya Jones. Basically the effort just needs to be coordinated. Mr. Camp indicated that Dr. Van Metre is supposed to be in Fort Worth in the late October timeframe to begin sampling other lakes. He added that if the funding from the Air Force is in place at the time Dr. Van Metre is in Fort Worth, then efforts won't have to be duplicated. Mr. Walters added that the funding and contract process normally takes 6 months; however, he was able to obtain additional funding immediately since it was in the 2001 budget.

Mr. Walters discussed the status of the East Parking Lot remedial project. A treatment system has been installed which has pumped 56 million gallons of water, and it is now being expanded to pump a lot more. Mr. Walters asked Lynn Schuetter of Jacobs Engineering how many extraction wells have been installed. Ms. Schuetter indicated that there were 11 or 13 wells and not all are used. Mr. Walters mentioned that the number of extraction wells is being expanded from 11 to 52. He added that the additional extraction wells will be placed in areas where extraction is needed, and they will have variable flow motors in order to adjust them as needed, in the future. The correct pump speeds will be used in order to be efficient and pump only the contaminated groundwater and not the fresh water from the lake.

Mr. Walters mentioned the hydraulic barrier wall and indicated that in November there may be a tour of the East Parking Lot remedial project. Mr. Daniel Johnson, Air Force Public Affairs, indicated that a tour of both the water plant and East Parking Lot remedial project is not possible, so a decision needs to be made regarding what the next tour will cover. This will be announced at a later time. Mr. Walters mentioned that if he is on site and if anyone would like to see AFP 4, his number is on the handout, so an appointment can be scheduled.

Mr. Walters continued his discussion of the hydraulic barrier wall indicating that over the past six months there has been extensive work performed in this area. This has required drilling rigs to be out there, coordination with the flight line and with Lockheed's F-16 production, numerous trenches, electrical lines, piping being laid, and finally asphalt must be applied. Mr. Walters displayed a photograph of the vaults that are out in the hydraulic barrier wall. He noted that if something gets past the treatment system, it would be treated by the 35 other wells. In five years, after observing how the system pumps, it will be modified and more extraction wells will be installed to make the system more efficient. Theoretically, the TCE plume will dilute and dissolve and, hopefully, it will no longer be a problem at NAS Fort Worth JRB. This treatment system should be operational by the end of September. It was noted that this system has a complicated computer system.

Mr. Walters discussed the Soil Vapor Extraction System operating at Building 181. He indicated that a tour of this site was performed in August 1999. In order to get the TCE out of the ground, a vacuum is being used to initiate volatilization. Since the TCE is in the soil, it is very difficult to get it out with just a vacuum system, so on August 6, 2000, the Air Force started heating the soil. This area is the concentrated area where the 1991 spill occurred, and prior to that, there were historical releases. The system operates in a similar manner to a hair dryer. Electrical current creates heat at depth, heating the soil to vaporize

TCE. Recovery pipes transport the TCE vapors back to the vapor extraction system that destroys TCE. This is a pilot test, and it takes about three weeks to heat the soil. The test is planned to run for up to two months, and the electric costs to operate this system for one month is \$30,000. An assessment of the cost versus benefits will have to be made since it is about an \$800,000 project. If it looks like the benefits weigh higher than the cost, then the system may be expanded. Mr. Walters mentioned that to heat up the soil costs \$30,000. Then it has to be cooled down to condense it through a heat exchanger, which will cost about another \$30,000. The hot air is running through the pipes, and cool air is blowing in, condensing the unit. Then it is run through the catalytic oxidator and air stripper system.

Mr. Walters discussed the remedial process optimization. He indicated that on Bomber Road is the Landfill 3 treatment system. Mr. Walters asked Mr. Dozzi of IT Corporation when Landfill 3 was installed. Mr. Dozzi indicated that the first phase was started in 1993, and it took approximately 4 years to install the entire system. Mr. Walters mentioned that the Landfill 3 system was his first and most costly treatment system. Since this project is long term because of the costs involved, it is important to confirm the well location and depths in order to ensure maximum utilization. In order to streamline the treatment system, a contractor has been hired to thoroughly assess the system to ensure that it is operating as efficiently as possible. Mr. Walters indicated that the Landfill 3 treatment system lines the creek and it is important not to let anything leak into the creek.

Mr. Walters mentioned the Landfill 4 and 5 treatment system that also was installed as an interim system and is also going to be assessed for efficiency. He indicated that the East Parking Lot is a new system and would not be worth the money to look into at this time. The Air Force is doing this all over the country, not just at AFP 4. The Air Force would like to get the long-term Operation and Maintenance costs down to get more TCE out of the ground and make the system efficient.

Mr. Dozzi mentioned that these treatment systems were installed by the Air Force in voluntary action before a remediation program was in place. Mr. Walters indicated that the EPA allows the installation of a temporary system and the systems above turned out to be larger than most.

Mr. Walters asked if there were additional questions. No questions were posed.

Westworth Redevelopment Authority

Ms. Pate introduced Leland Clemons who conducted a briefing on the activities and progress made by the Westworth Redevelopment Authority since the May 2000 briefing.

Mr. Clemons began his briefing by indicating that the Westworth Redevelopment Authority has been marketing off two parcels of its property. Kings Branch is the parcel across from the Shady Oaks Country Club and another parcel on Highway 183. He noted that one has been marketed more aggressively than the other, but both are under contract to developers. He indicated that Kings Branch is expected to close sometime during October 2000. The site on Highway 183 should close in November or December of this year, depending on if the developers desire to bifurcate it into two different sites. The developers have an option

on time. The site across from Shady Oaks will be a mixed density residential development, and the site along Highway 183 will be a 'large box' discount retail site. Mr. Clemons indicated that stores like Wal-Mart, Kmart, and Target will do well in that area, since it complements Ridgmar Mall. It will compete well with what is on White Settlement Road along Cherry Lane, and it recognizes what people who have grown up with on this side of the town have said all a long, which is that it is a separate and distinct retail market from Hulen/Bryant Irving corridor.

Mr. Clemons indicated that the golf course will be closed for one year beginning November 6. During that year, it will be renovated, rebuilt, and reconfigured. The reconfiguration fits in with the sale of the 15 acres of property located on the golf course. Mr. Clemons mentioned that it will reopen as a much improved course, and a lot of the deficiencies including irrigation, water deliverabilty, and condition of greens will be improved. It is a high maintenance cost course and this will be addressed during the reconfiguration. In addition, it will reopen as an 'open for the public, pay per play course' just like it is right now. Mr. Clemons indicated that because of the Kings Branch property sale being converted to a planned development area and the commercial development on Highway 183, the value of each site individually adds to the value of the others.

Mr. Clemons mentioned that the Carswell Oaks leasing program, which leases to military families, continues to be very successful. The houses are 100 percent occupied, as well as almost 100 percent turnover every year because of military rotation. He noted that there are approximately eight to nine new tenants every month out of 110 houses. The program is very active and beneficial to the base, and the Westworth Redevelopment Authority is happy to have this opportunity.

Mike Gross, a community member asked Mr. Clemons if he ever expected to sell off portions of the golf course for industrial opportunities. Mr. Clemons indicated that he would not say it was not possible but did not think it was probable. He noted that if an industrial company was willing to pay the right price to develop on the golf course and the money could be turned over to the city with no further work to be done, it might be considered. Mr. Clemons added that he couldn't envision it being the case because of the value of having the golf course for the public benefit, as well as the associated 'greenspace.' Greenspace has a value even though it may not be economical compared to some other use. Mr. Clemons indicated that the price would have to be such that the city would want to be able to use those proceeds to develop a similar greenspace area elsewhere within the city. Mr. Clemons concluded that he didn't foresee this occurring since the budgeted \$2.5 million dollars has been spent to renovate the course.

RAB Charter and Additional Announcements

Ms. Pate introduced Dan Johnson to discuss the Charter Review and make a few announcements.

Mr. Johnson began with a few announcements. Because of the confusion regarding the scheduled tour at AFP 4, he will sort out what tours will be occurring and let everyone know. He indicated that the information repository at the White Settlement Library is being put on a CD. The CDs should be available within the next 6 weeks, since they are doing

last minute quality control things. Mr. Johnson mentioned that the RAB Charter needs to be gone over and updated. Mail or fax all comments and changes to Mr. Johnson, and he will compile them to discuss at the November RAB meeting.

Mr. Johnson mentioned that the Air Force is redoing the community relations plan, which is used to determine the best methods to ensure information is received about the cleanup. It addresses regulations, government environmental cleanup, history of the facilities, description of IRP sites, and community backgrounds. The concerns are obtained through a series of community interviews. Mike Hawkins, who has taken over for Gary DuPriest and is doing the public affairs work for AFCEE, and Dan Johnson will be conducting interviews once a schedule is put together. Mr. Johnson indicated that they will be contacting some of the RAB members, local officials, and some community members that live in the area. If you are interested in being part of this interview process, give Mr. Hawkins or Mr. Johnson a call.

Adjournment

The next RAB meeting is scheduled for November 2, 2000, at 6:00 p.m. The meeting was adjourned at 7:45 p.m.

In Attendance

Carswell DERA (On-Base)

Mike Dodyk, HQ AFCEE/ERD
 Don Ficken, AFCEE Team Chief for Carswell
 Mike Hawkins, Public Affairs Officer for AFCEE
 Todd Harrah, HydroGeoLogic, Inc.
 Lynn Morgan, HydroGeoLogic, Inc.
 Miquette Rochford, HydroGeoLogic, Inc.
 Jennifer Wallace, HydroGeoLogic, Inc.
 Robert Thompson, TETRA TECH
 Geoff Pope, TETRA TECH

Carswell AFBCA (Off-Base)

Rafael Vazquez, AFBCA
 Alvin Brown, AFBCA
 Charles Pringle, HQ/AFCEE/ERB

Air Force Plant 4

Daniel Johnson, ASC/ENVR
 George Walters, ASC/ENVR
 Victor Dozzi, IT Corporation
 Greg McGraw, IT Corporation
 Lynn Schuetter, Jacobs Engineering
 Dave McMines, Roy F. Weston

United States Navy

Captain Steve McMillion, Commander in Chief of NAS Fort Worth
 Commander Craig Love, Executive Officer

Ed Lohr, Navy Engineering Field Division from South Carolina
Karen McElroy, Navy Environmental
Texas Natural Resource Conservation Commission
Ray Risner, TNRCC of Austin
Mark Weegar, TNRCC of Austin
Luda Voskov, TNRCC of Austin
Tim Sewell, Region 4
United States Geological Survey
Sonya Jones, USGS
United States Environmental Protection Agency
Gary Miller, Region 6
Others, Off-Base
Chris Baack, Community Member
Mike Gross, Community Member
John Maddox, Community Member
William Olshefski, Community Member
J'Nell Pate, Community Member
Andrea West, Community Member
Brian Camp, City of Fort Worth Environmental Management Department
Clarence Reed, City of Fort Worth Environmental Management Department
James Scanlan, City of Fort Worth
Robert Taylor, City of Fort Worth Water Department
Greg Hendrickson, City of River Oaks
Derek Frazier, EA Engineering

PROGRAM STATUS

- CLOSURE REPORTS
 - AEROSPACE MUSEUM
 - GROUNDS MAINTENANCE YARD
- WEAPONS STORAGE AREA
- SANITARY SEWER INVESTIGATIONS
- LANDFILL INVESTIGATIONS
 - LANDFILLS 4, 5, AND 8
 - WASTE PILE 7

PROGRAM STATUS CLOSURE REPORTS

- **ADDITIONAL INVESTIGATIONS NEEDED FOR
AEROSPACE MUSEUM AND GROUNDS
MAINTENANCE YARD**
- **CLOSURE REPORTS WILL BE REVISED AND
SUBMITTED IN DECEMBER 2000**

**PROGRAM STATUS
WEAPONS STORAGE AREA**

- ADDITIONAL FIELD WORK TO FINISH SOIL EXCAVATION COMPLETED IN NOVEMBER 1999
- CLOSURE REPORT SUBMITTED TO REGULATORS IN AUGUST 2000

PROGRAM STATUS

SANITARY SEWER INVESTIGATIONS

- PHASE II INVESTIGATIONS FUNDED AND INVESTIGATIONS ARE ONGOING
- VIDEO SURVEY OF SEWER LINES BY NAVY IDENTIFIED ADDITIONAL CONCERNS (LINE BREAKS)
- PHASE III INVESTIGATIONS FUNDED AND DEVELOPING WORKPLAN
- COMPLETE INVESTIGATIONS AND WRITE CLOSURE REPORTS BY JULY 2001

PROGRAM STATUS

LANDFILL INVESTIGATIONS

- ADDITIONAL FIELD INVESTIGATIONS TO COMPLETE RCRA FACILITY INVESTIGATION (RFI) ONGOING
- RFI REPORT SCHEDULED IN AUGUST 2000
- CORRECTIVE MEASURE IMPLEMENTATION (CMI) DESIGN FOR SOILS ONLY COMPLETED IN JULY 2000
- COMPLETE CONSTRUCTION OF CMI IN AUGUST 2000

PROGRAM STATUS

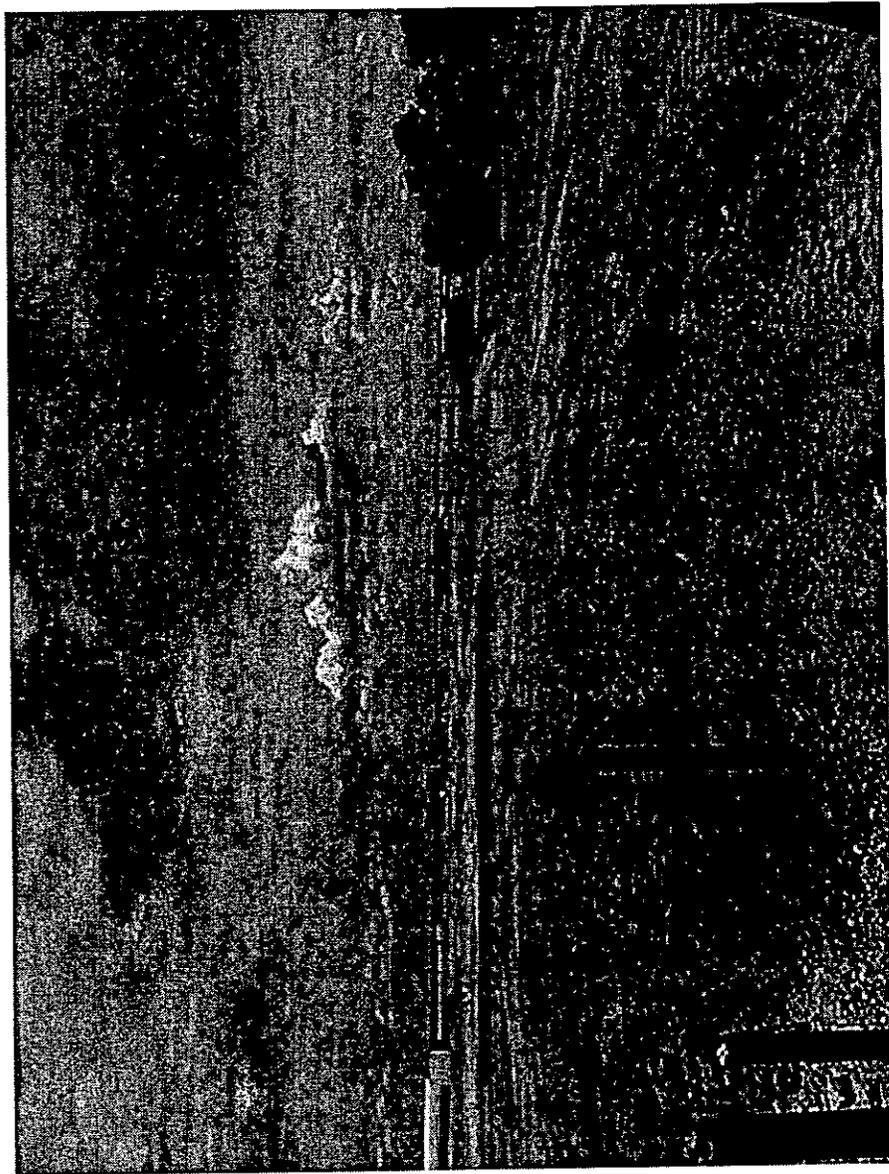
LANDFILL INVESTIGATIONS

- LANDFILL 4
 - REMOVED CONTAMINATED SOIL FROM HOT SPOTS
 - CONSTRUCTION OF SOIL CAP DUE TO MEDICAL WASTE IS 90% COMPLETE
- LANDFILL 5
 - REMOVED CONTAMINATED SOIL FROM HOT SPOTS
 - CONSTRUCTION OF SOIL CAP DUE TO MEDICAL WASTE IS 90% COMPLETE
- LANDFILL 8
 - REMOVED CONTAMINATED SOIL FROM HOT SPOTS

LF-04 Capping



LF-05 Capping



LF-08 Removal

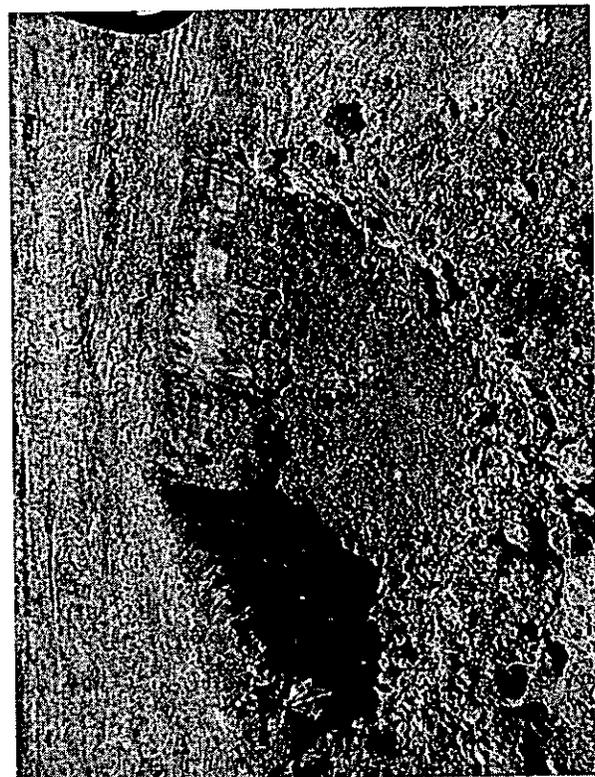
There were 4 areas excavated at LF-08 as shown:



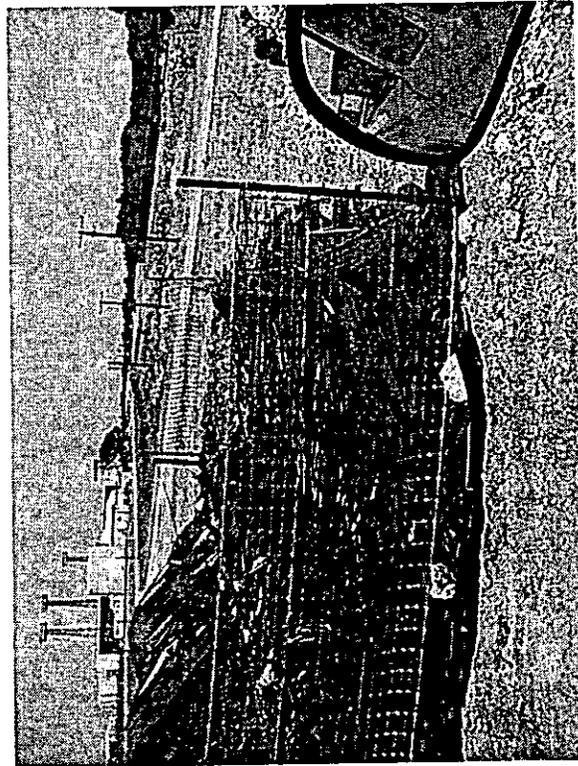
Area 8A - 2 feet with 8 foot deep pit

LF-08 Removal

There were 4 areas excavated at LF-08 as shown: cont.



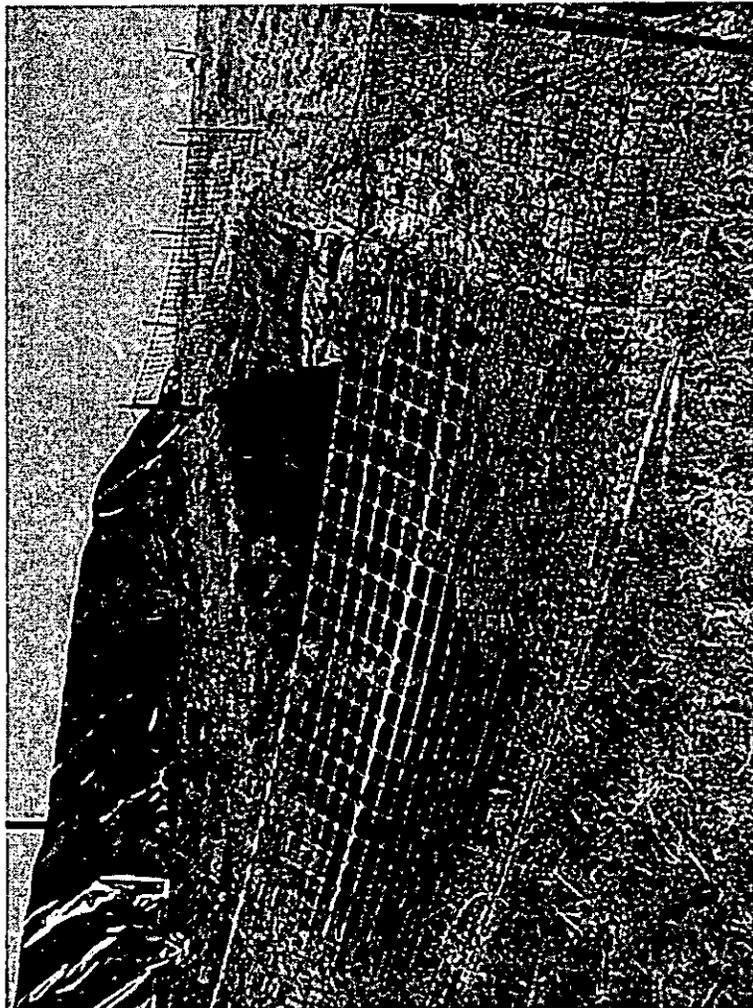
Area 8D



Area 8E

LF-08 Removal

There were 4 areas excavated at LF-08 as shown: cont.



Area 8F

PROGRAM STATUS

LANDFILL INVESTIGATIONS

- WASTE PILE 7
 - IN OCTOBER 1991, US CORPS OF ENGINEER (COE) CONDUCTED A ELECTROMAGNETIC (EM) SURVEY TO LOCATE BURIED DRUMS
 - COE REMOVED 34 DRUMS (9 PARTIALLY FULL/25 EMPTY)
 - DRUMS CONTAINED TRICHLOROETHYLENE (TCE) and PERCHLOROETHYLENE (PCE)
 - IN APRIL 2000, IT CORPORATION CONDUCTED AN ADDITIONAL EM SURVEY TO CONFIRM THE REMOVAL OF ALL DRUMS
 - TWO LOCATIONS SHOWED HIGH AND FIVE MEDIUM PROBABILITY OF BURIED METAL OBJECTS

PROGRAM STATUS

LANDFILL INVESTIGATIONS

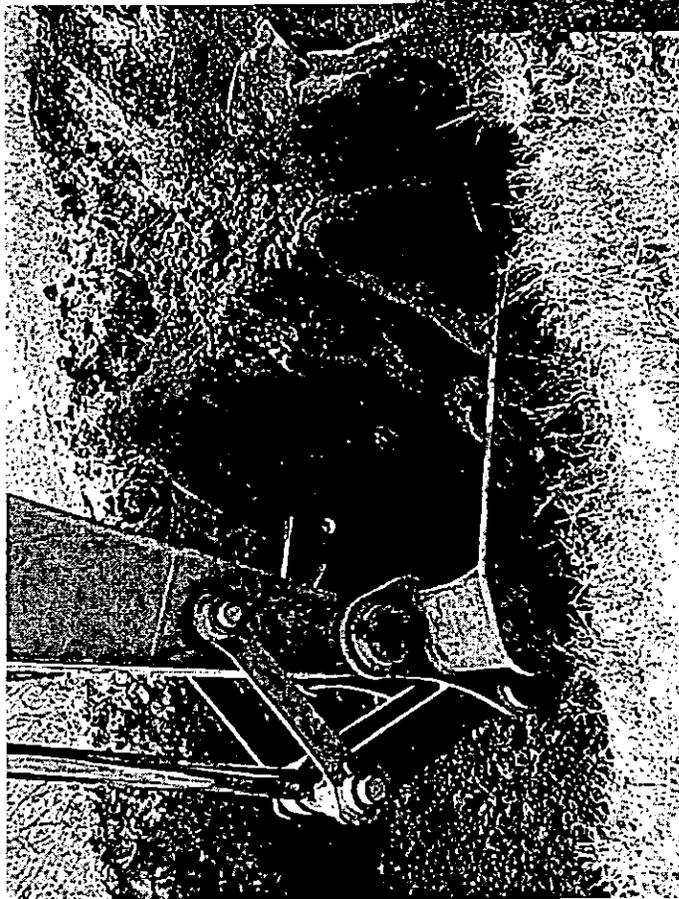
- WASTE PILE 7 (Contd.)
 - IN JULY 2000, IT CORPORATION EXCAVATED THE HIGH PROBABILITY AREAS
 - 21 ADDITIONAL DRUMS WERE FOUND IN THOSE TWO PROBABILITY AREAS
 - 17 DRUMS WERE EMPTY
 - THREE DRUMS WERE PARTIALLY FULL WITH LIQUID (TESTING SHOWED TCE AND PETROLEUM PRODUCTS)
 - ONE DRUM SPILLED SOME OF THE LIQUID DURING EXCAVATION
 - LIQUID AND CONTAMINATED SOIL WERE REMOVED
 - ONE DRUM CONTAINED A POWDERY SUBSTANCE (TESTING SHOWED TCE AND PETROLEUM PRODUCTS)

PROGRAM STATUS

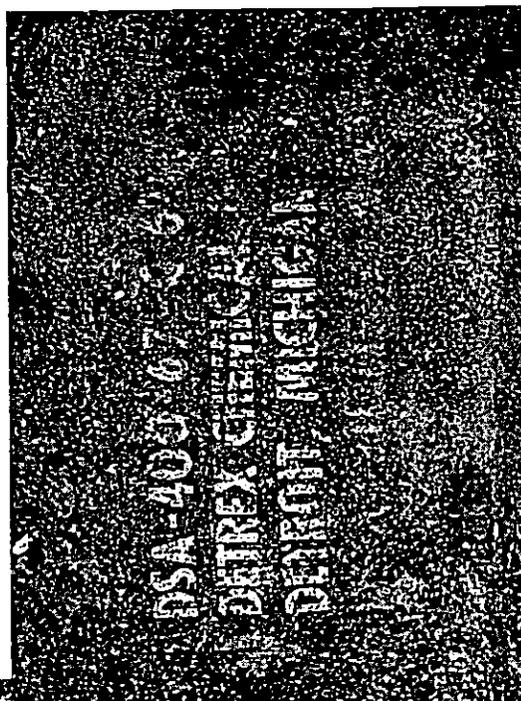
LANDFILL INVESTIGATIONS

- WASTE PILE 7 (Contd.)
 - EXCAVATION PERFORMED ON THE FIVE MEDIUM AREAS SHOWED NO ADDITIONAL DRUMS
 - TWO ADDITIONAL AREAS OUTSIDE OF THE HIGH AND MEDIUM AREAS WERE EXCAVATED TO REMOVE CONTAMINATED SOILS
 - TWO ADDITIONAL WELLS WERE INSTALLED INSIDE THE UNIT
 - AN ADDITIONAL EM SURVEY WAS CONDUCTED INSIDE AND OUTSIDE OF THE UNIT TO CONFIRM REMOVAL OF ALL DRUMS (NO ADDITIONAL AREAS WERE IDENTIFIED)

WP-07 Excavations



A3 Removal Drum 1



Label from drum

WP-07 Excavations

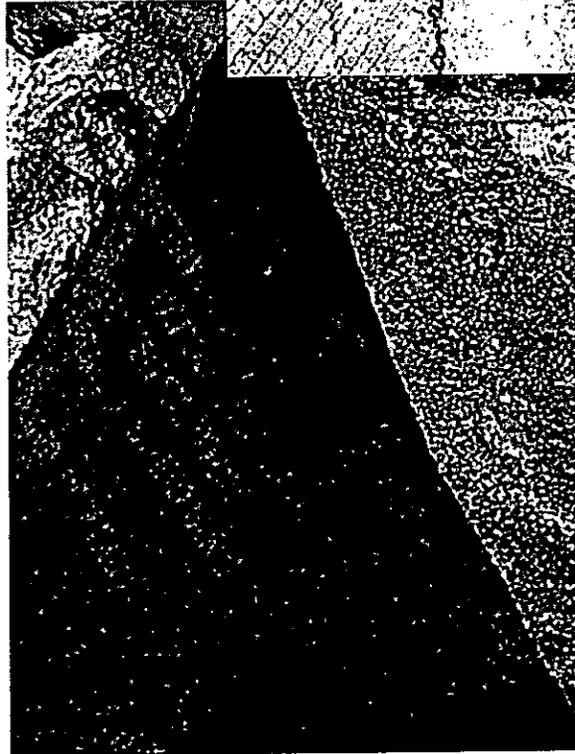


Label from drum

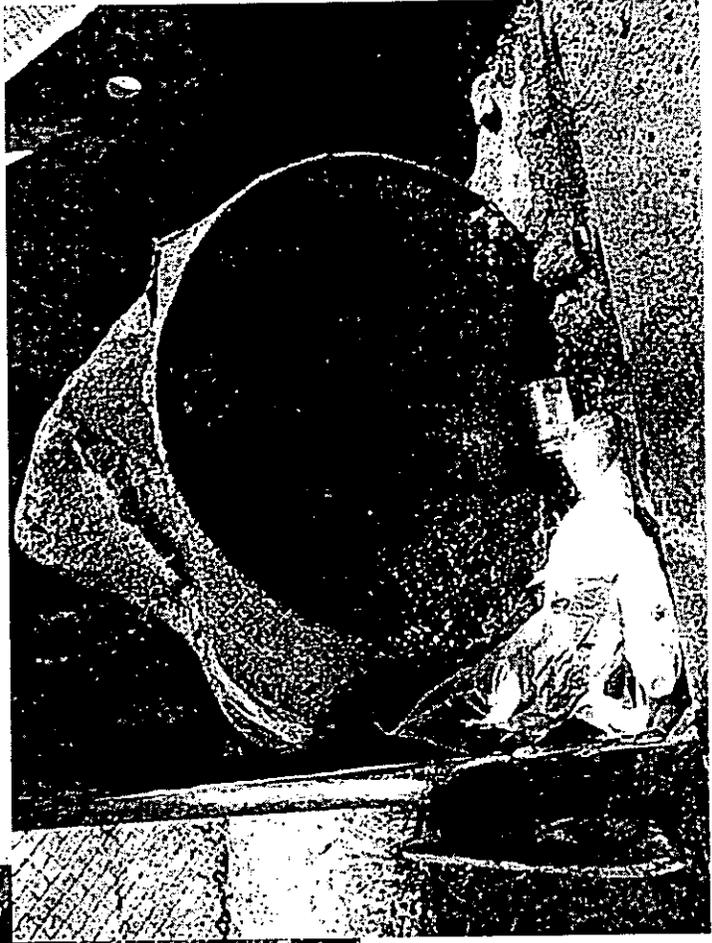


Drum 2 with liquid

WP-07 Excavations



Label from drum



Area 3 - Drum 3

WP07 Excavations



‘Blue Powder’ in decomposed drum

PROPERTY TRANSFER UPDATE

- FEDERAL BUREAU OF PRISON HOSPITAL
 - COMPLETED IN JULY 2000
- LAND TRANSFER TO NAVY
 - PACKAGE SENT TO NAVY IN JULY 2000
- KINGS BRANCH HOUSING AREA IN AUGUST 2000
- WEAPONS STORAGE AREA IN OCTOBER 2000
- HORSE STABLES AREA IN DECEMBER 2000

NAS Fort Worth JRB Installation Restoration Program Update

Michael R. Dodyk, P.E.

August 10, 2000

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Installation Restoration Program History

- ◆ Carswell AFB officially closed September 30, 1993
 - A large part of the former Carswell AFB was transferred to the Navy and renamed the NAS Fort Worth JRB.
 - Prior to complete property transfer, required environmental investigations of potentially contaminated sites related to Air Force activities prior to October 1, 1993 are to be completed; and contaminated sites remediated.
 - The Air Force assigned AFCEE both management and implementation responsibility for completing the IRP on NAS Fort Worth JRB property.



Regulatory and Site Overview

- ◆ Former Carswell AFB issued a RCRA Permit on February 7, 1991 (HW-50289)
 - This permit requires a RCRA Facility Investigation (RFI) of all Solid Waste Management Units (SWMUs) listed in Permit Provision VIII (as well as SWMUs subsequently added to the list).
 - AFCEE is investigating and remediating a total of 43 SWMUs and 13 AOCs at NAS Fort Worth JRB (4 of these 56 sites have been officially closed by the TNRCC). All other sites are at varying stages of investigation or corrective action.



Regulatory and Site Overview

- Remaining SWMUs and AOCs include 7 landfills, 16 Waste Accumulation Areas, 3 fire training areas, 15 Oil/Water Separators, 3 fueling stations, a POL tank farm, and various other locations and structures where contaminants may have potentially been released into the environment.
- See the AFCEE Home Page for online access to the NAS Fort Worth JRB IRP Administrative Record
 - (<http://www.afcee.brooks.af.mil/>)
 - At the Home Page - select "Organizations"
 - Select "Environmental Restoration"
 - Select "Links"
 - Select "NAS Fort Worth JRB Web Page"

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Risk Reduction Standards

- ◆ TNRCC is lead regulatory agency, and EPA Region VI provides secondary oversight for the IRP at NAS Fort Worth JRB.
- ◆ RFI findings are being evaluated using the Texas Risk Reduction Standards (RRS). Closure under...
 - RRS-1 approximates a no release condition.
 - RRS-2 indicates a limited release posing no significant threat to groundwater, human health, or the environment. Institutional controls are required, but no corrective action.
 - RRS-3 indicates a release with the potential to impact groundwater and threaten human health or the environment. Formal risk assessments and/or corrective measures are typically required



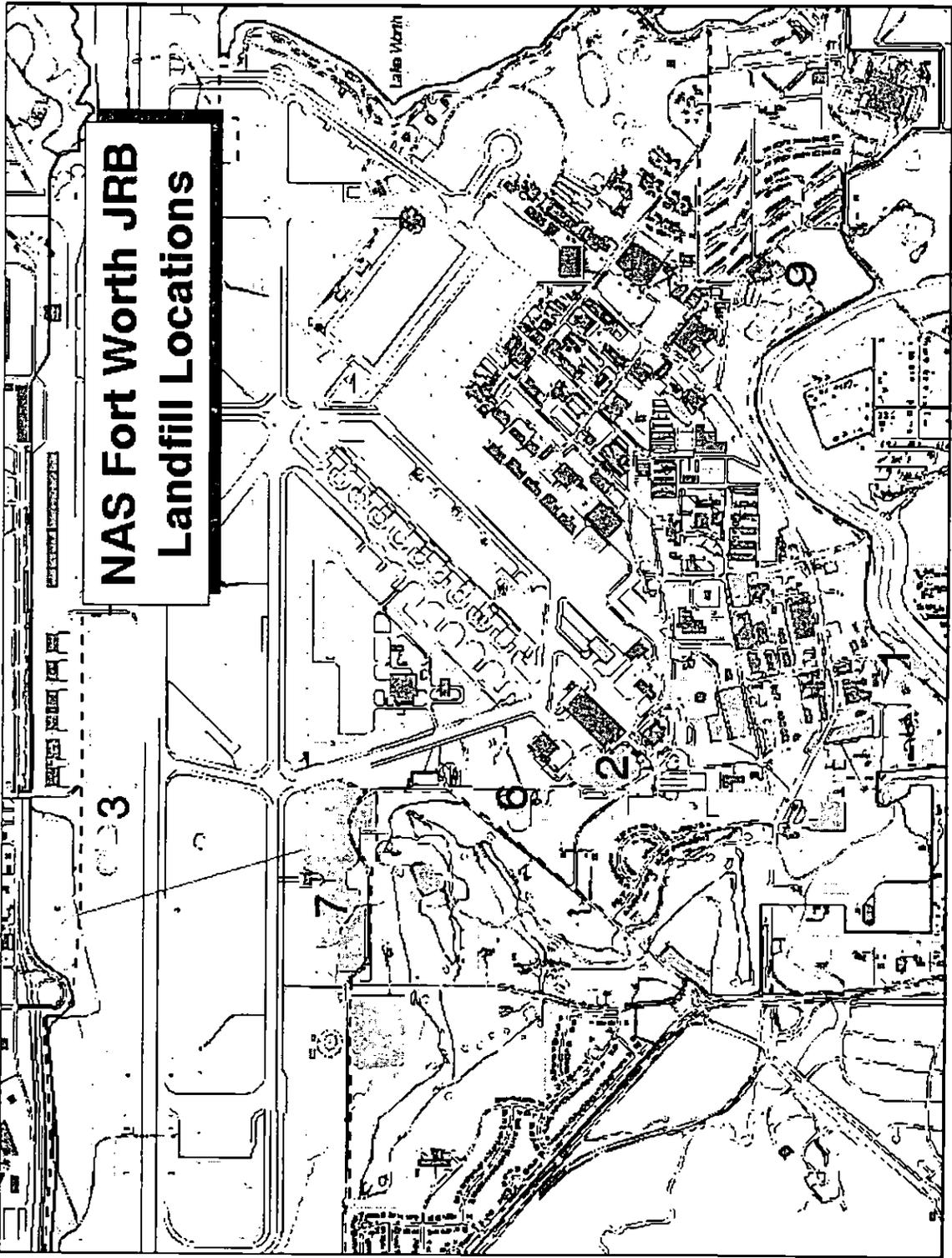
Investigation Update - Landfills

- ◆ Phase III field work completed in June 2000 at Landfills 1, 2, 3, 6, 7, and 9
 - Limited additional field work planned for Fall 2000
- ◆ Landfill RFI Reports planned for submittal to AFCEE later this year, pending successful completion of delineation activities.

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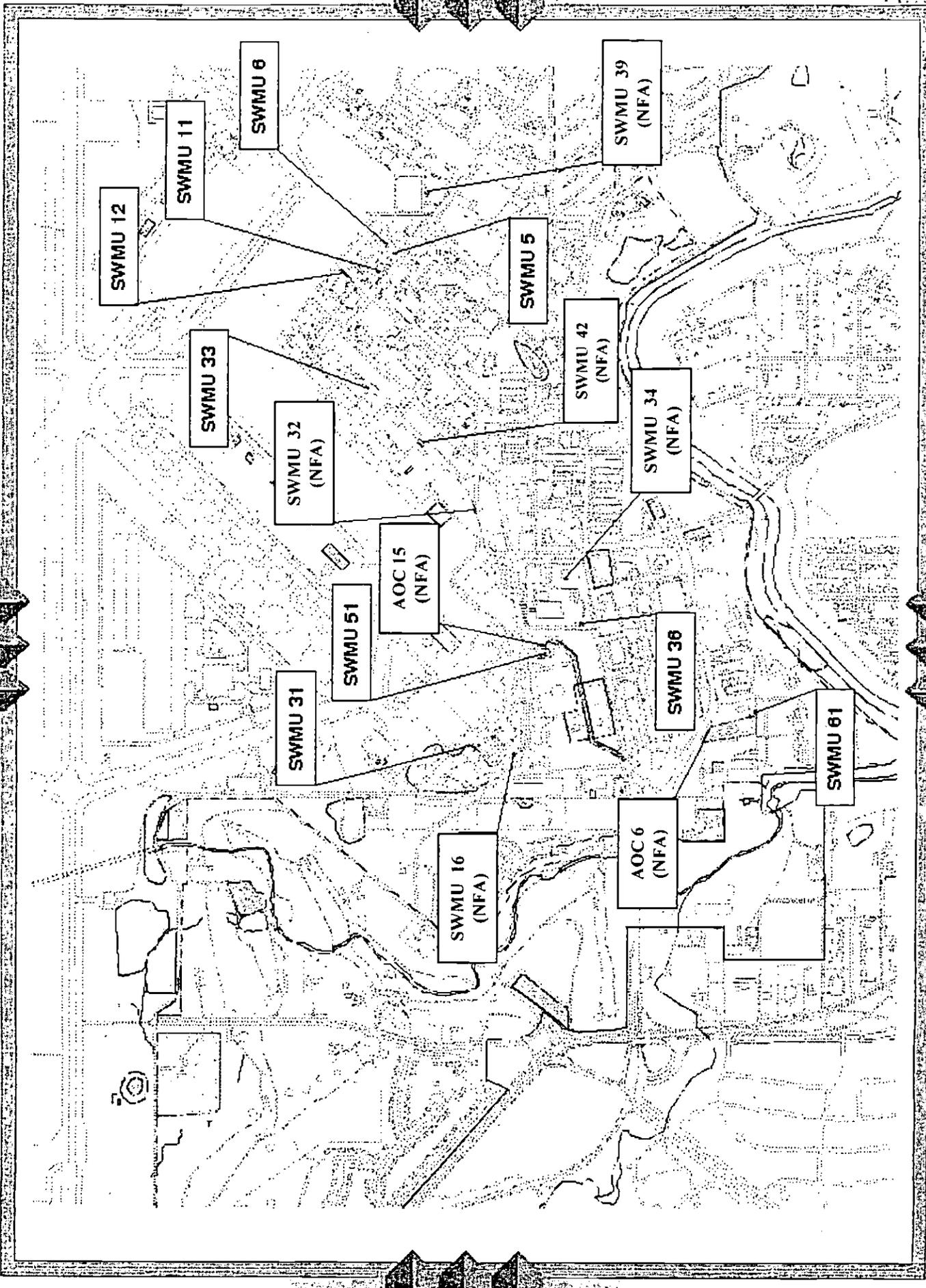
**NAS Fort Worth JRB
Landfill Locations**



Investigation Update Waste Accumulation Areas (WAA)

- ◆ Phase II field work for 9 of the 16 WAAs was completed in June 2000.
 - Phase II field work included soil and groundwater investigations
 - Analytical results currently being evaluated by AFCEE Contractor
 - One additional round of groundwater sampling planned for August
- ◆ An RFI Report recommending no further action for the remaining 7 WAAs was submitted to the TNRCC for review in July 2000.

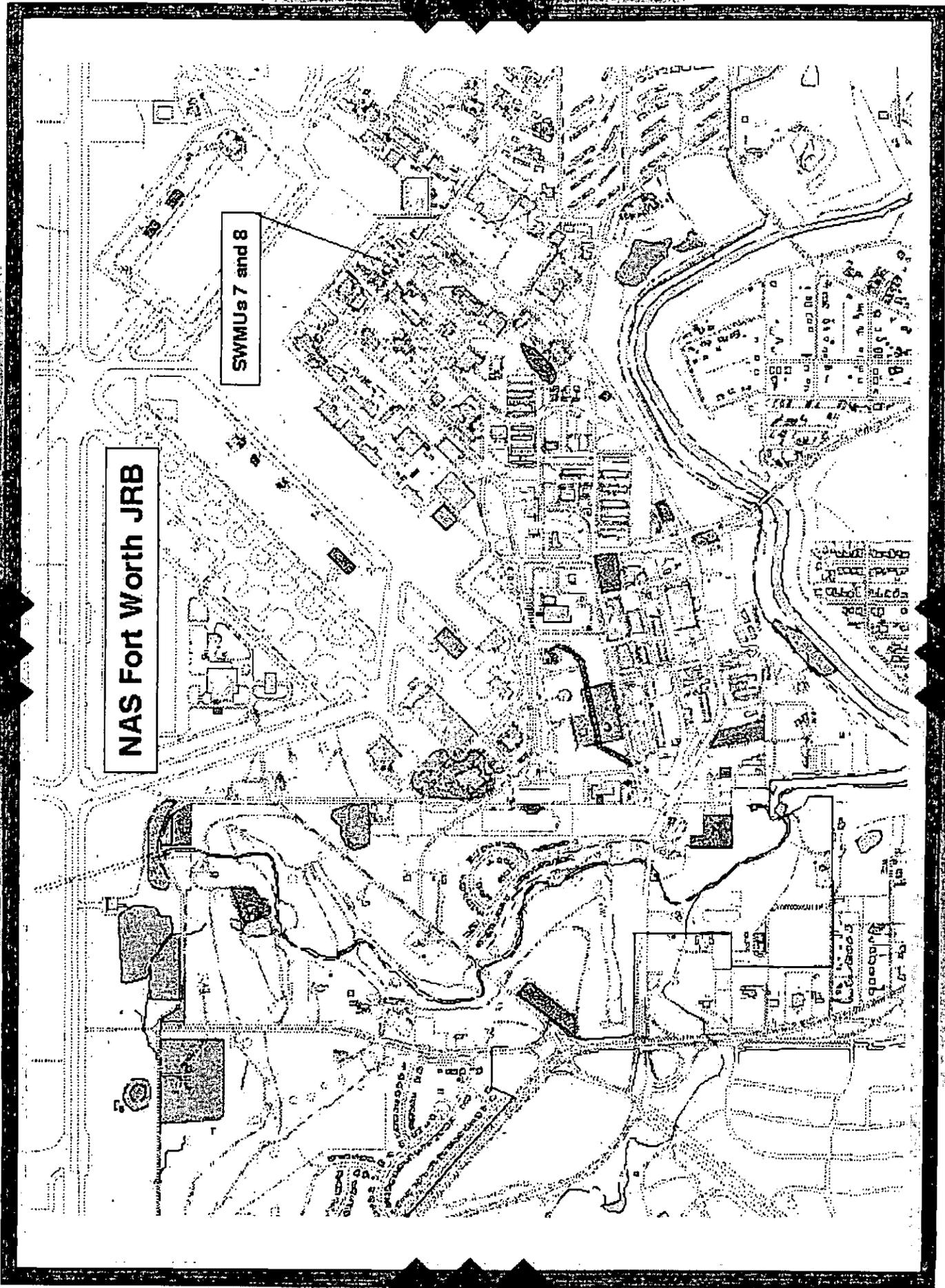




SWMU 7 and SWMU 8

- ◆ Site Description
 - SWMU 7 - Building 1628 oil/water separator
 - SWMU 8 - Associated waste oil UST
- ◆ In January 2000, a Final Closure Report was submitted to TNRCC requesting a determination of "No Further Action" based on the conclusion that there has been no release of hazardous constituents from either site.
- ◆ In February 2000, TNRCC requested additional groundwater sampling to confirm that there had been no release.
- ◆ In April 2000, conformational groundwater sample results were submitted to the TNRCC confirming no evidence of a release.
- ◆ In July 2000, the site closure request for SWMU 7 and SWMU 8 was approved by the TNRCC.





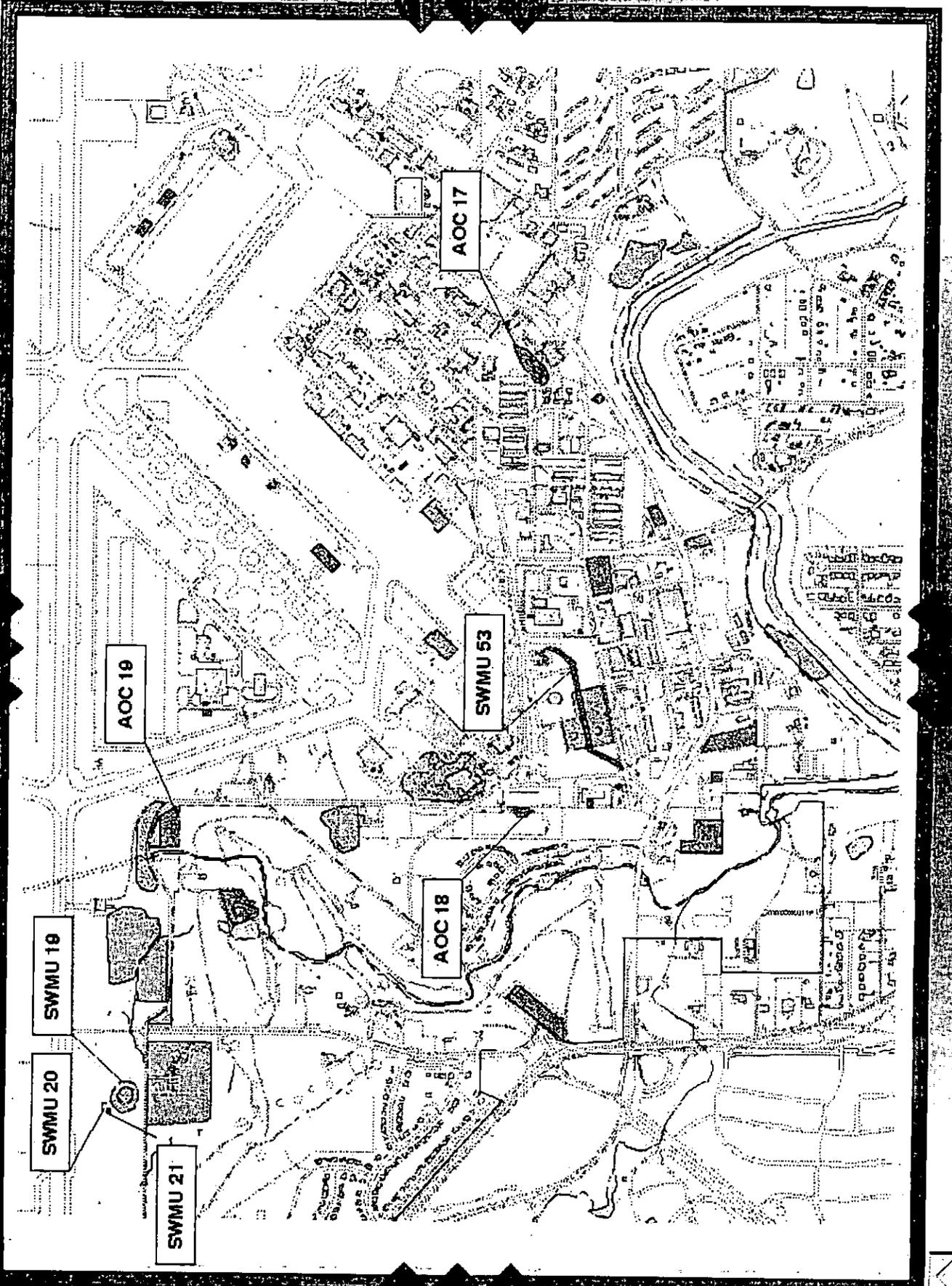
NAS Fort Worth JRB

SWMUs 7 and 8

SWMUs 19, 20, 21, and 53; AOCs 17, 18, and 19

- ◆ Initial field investigations were completed in June at these sites:
 - SWMUs 19, 20, and 21--Former Fire Training Area No. 2
 - SWMU 53--Storm water drainage system
 - AOC 17--Suspected former landfill
 - AOCs 18 and 19--Suspected former fire training areas
- ◆ Field work activities included geophysical surveys and soil sampling.
- ◆ Field Investigation results are currently being evaluated to determine additional sampling requirements.





AOC 17

AOC 19

SWMU 53

AOC 18

SWMU 19

SWMU 20

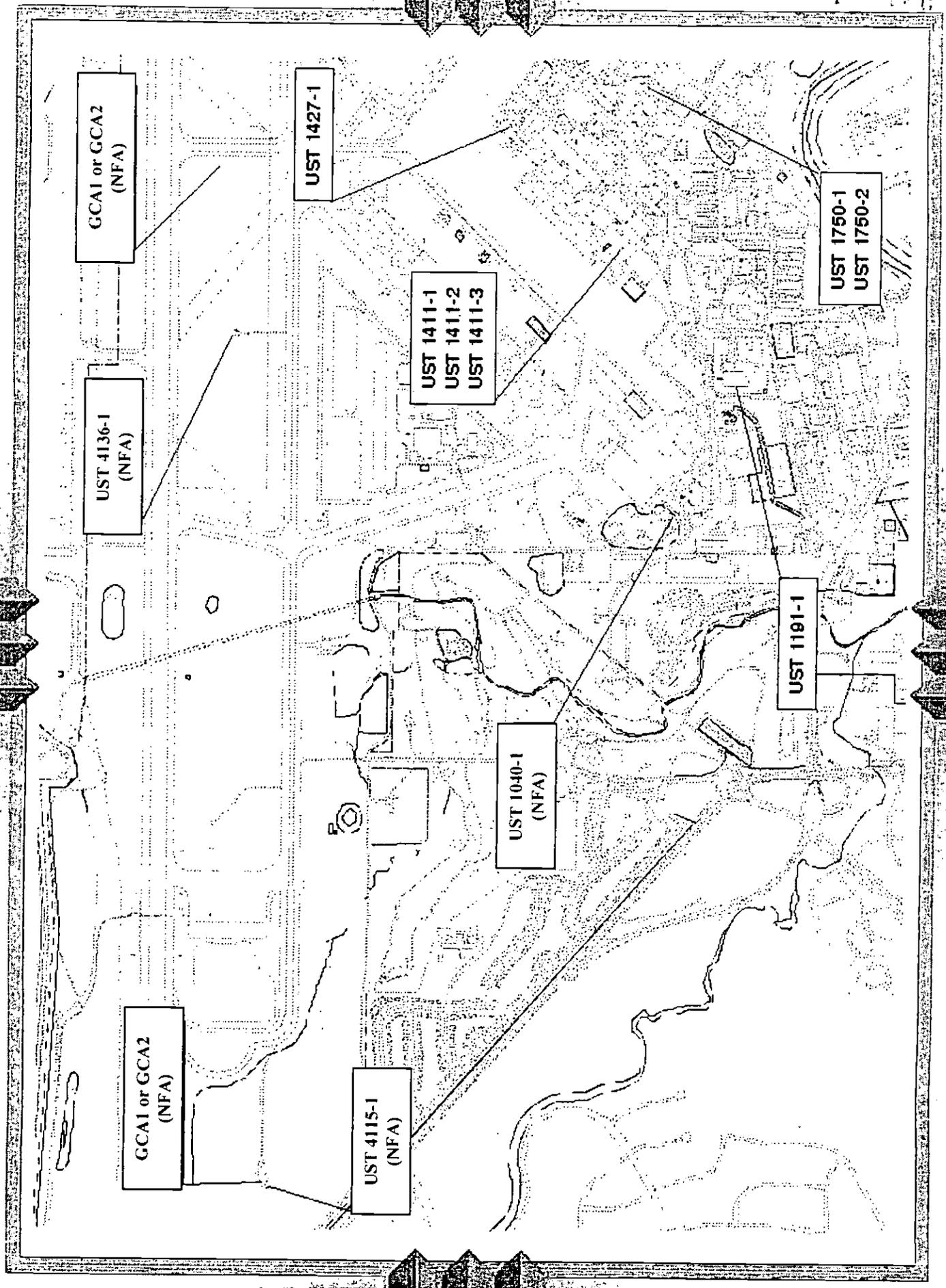
SWMU 21



Underground Storage Tank (UST) Investigation

- ◆ Final Investigation Summaries for 5 USTs submitted to TNRCC for closure in March 2000.
- ◆ A Final Release Determination Report for the UST at Building 1427 was submitted to the TNRCC in July 2000. A Plan A Site Assessment was proposed as the next appropriate action.
- ◆ Additional soil and /or groundwater sampling was completed at 6 USTs as of May 2000. A No Further Action Request for these sites will be submitted to the TNRCC by September 2000.





UST Investigation (cont.)

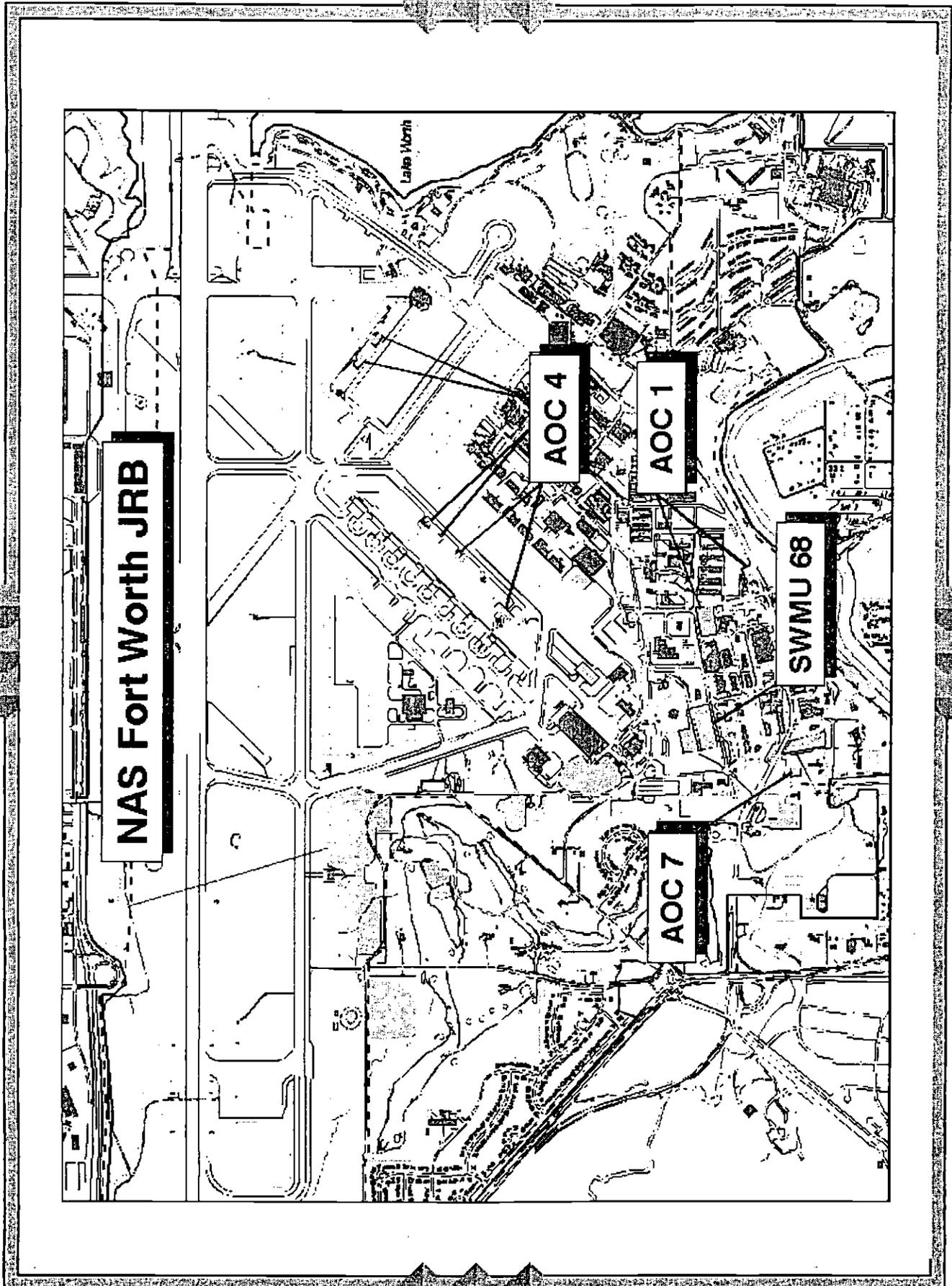
- ◆ AOC 1, Former Base Service/Gas Station
 - Three wells were installed off-base in May 2000.
 - Semi-annual groundwater sampling of the newly installed wells and existing wells began in April and May 2000.
- ◆ SWMU 68, POL Tank Farm, and AOC 7, Former Base Refueling Area
 - A Final Site Assessment Report for SWMU 68 and AOC 7 will be submitted to the TNRCC in September 2000.
 - Semi-annual groundwater sampling began in April 2000. Weekly product recovery continues as necessary.



UST Investigation (cont.)

- ◆ AOC 4, Former Fuel Hydrant System
- The Draft SI Report and Assessment Report Form was submitted to TNRCC in August 1999.
- Efforts in 1999 included weekly product removal and quarterly groundwater monitoring for 1 year.
- The Final Annual Groundwater Sampling Report for 1999 was submitted to the TNRCC in July 2000.
- Semi-annual groundwater sampling began in April 2000. Weekly product removal continues as necessary





NAS Fort Worth JRB

AOC 4

AOC 1

AOC 7

SWMU 68

Lake Worth

Corrective Measures at AOC 13 (Building 1145 Oil/Water Separator)

- ◆ Removal and replacement of the leaking Oil Water Separator was completed in June 2000.
- Contaminated soils were overexcavated and confirmation samples were collected on excavation sidewalls
- Analytical results are currently being evaluated to determine any additional sampling requirements

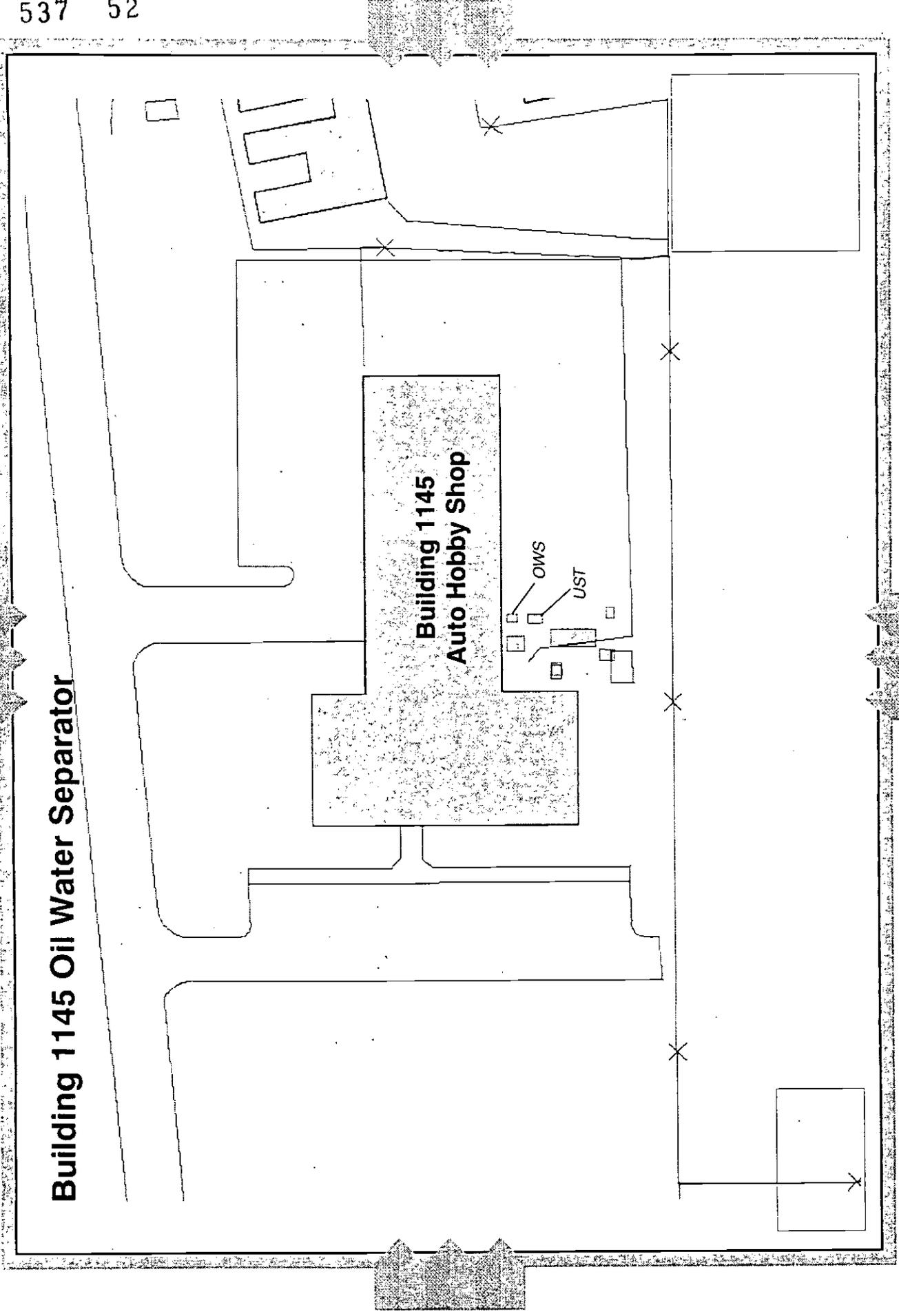


Building 1145 Oil Water Separator

**Building 1145
Auto Hobby Shop**

OWS

UST

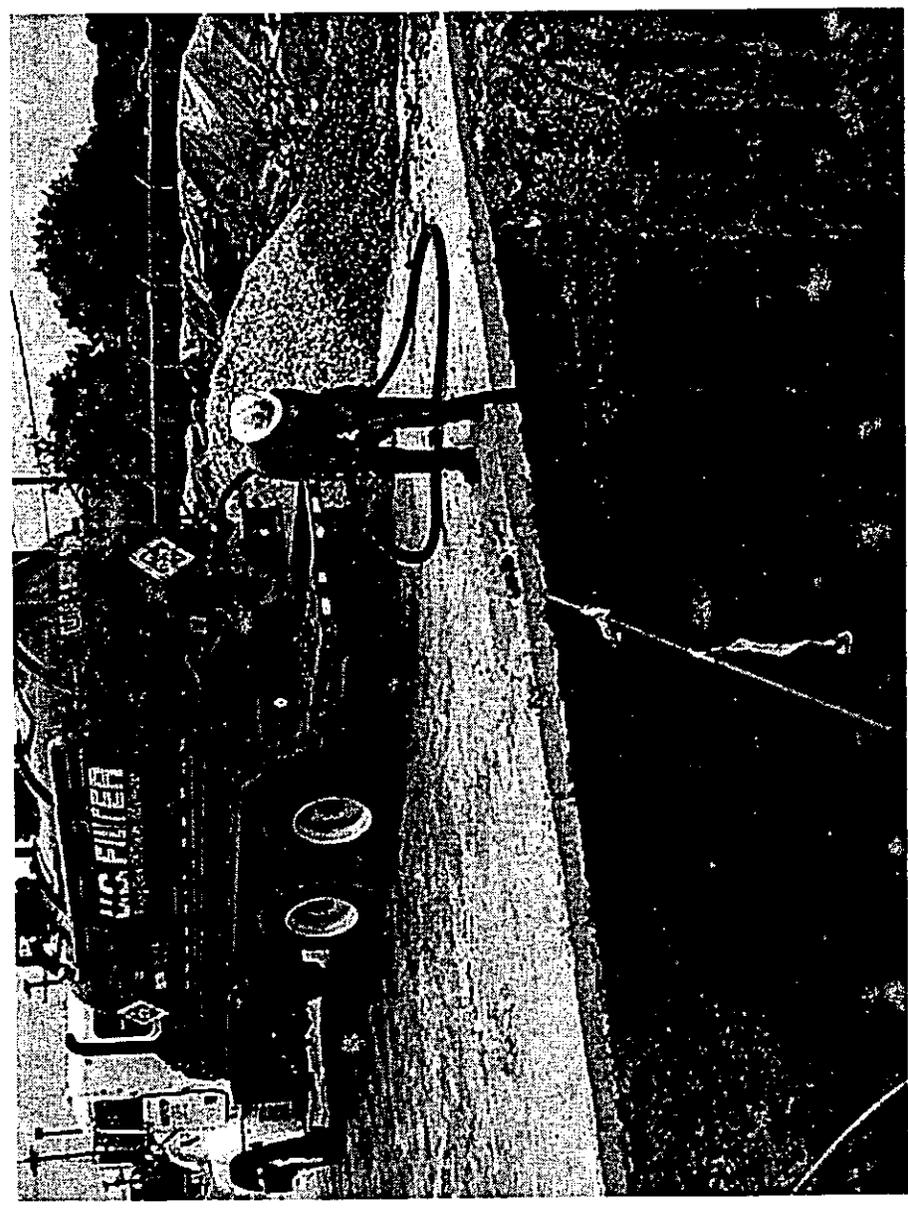


AOC 13 - Removing UST



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AOC 13 - Removing Contaminated Groundwater



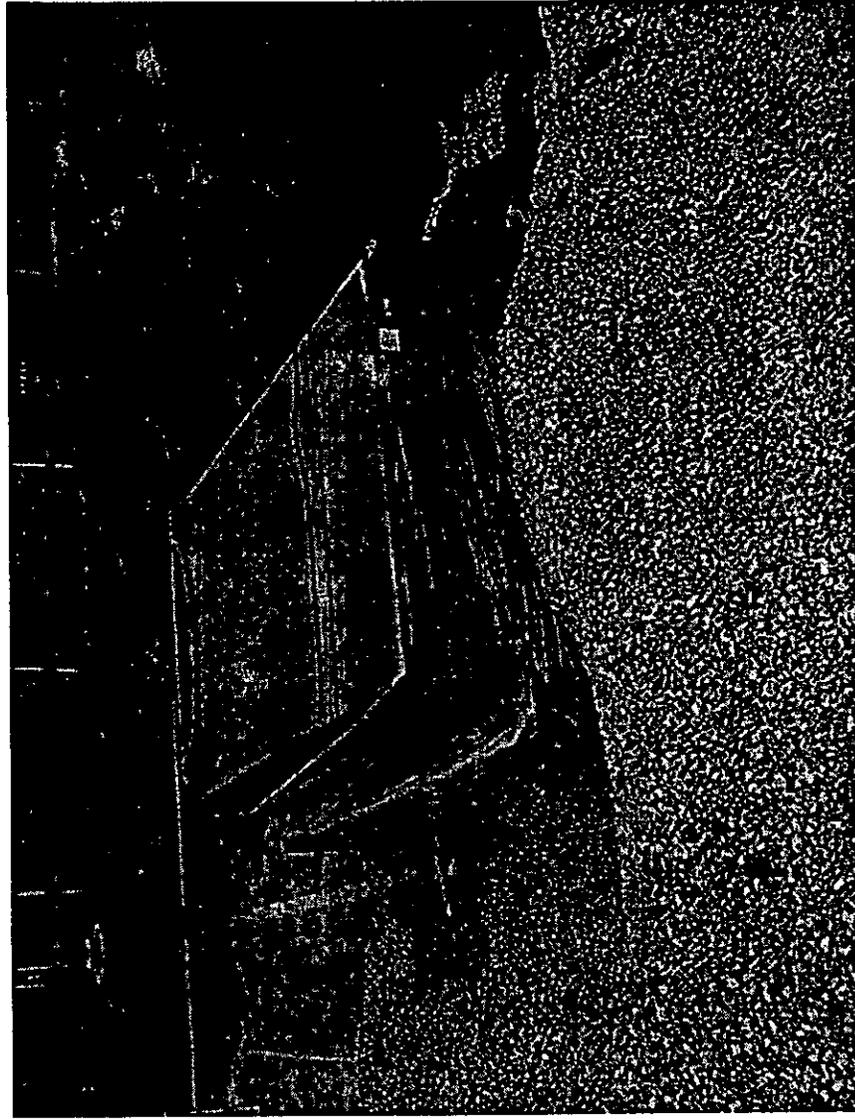
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AOC 13 - Adding Base for New Oil Water Separator



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AOC 13 - New Oil Water Separator



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SWMUs 45, 54, and 55

◆ Work Plans for performing field investigations for the following sites were submitted to AFCEE in

July 2000:

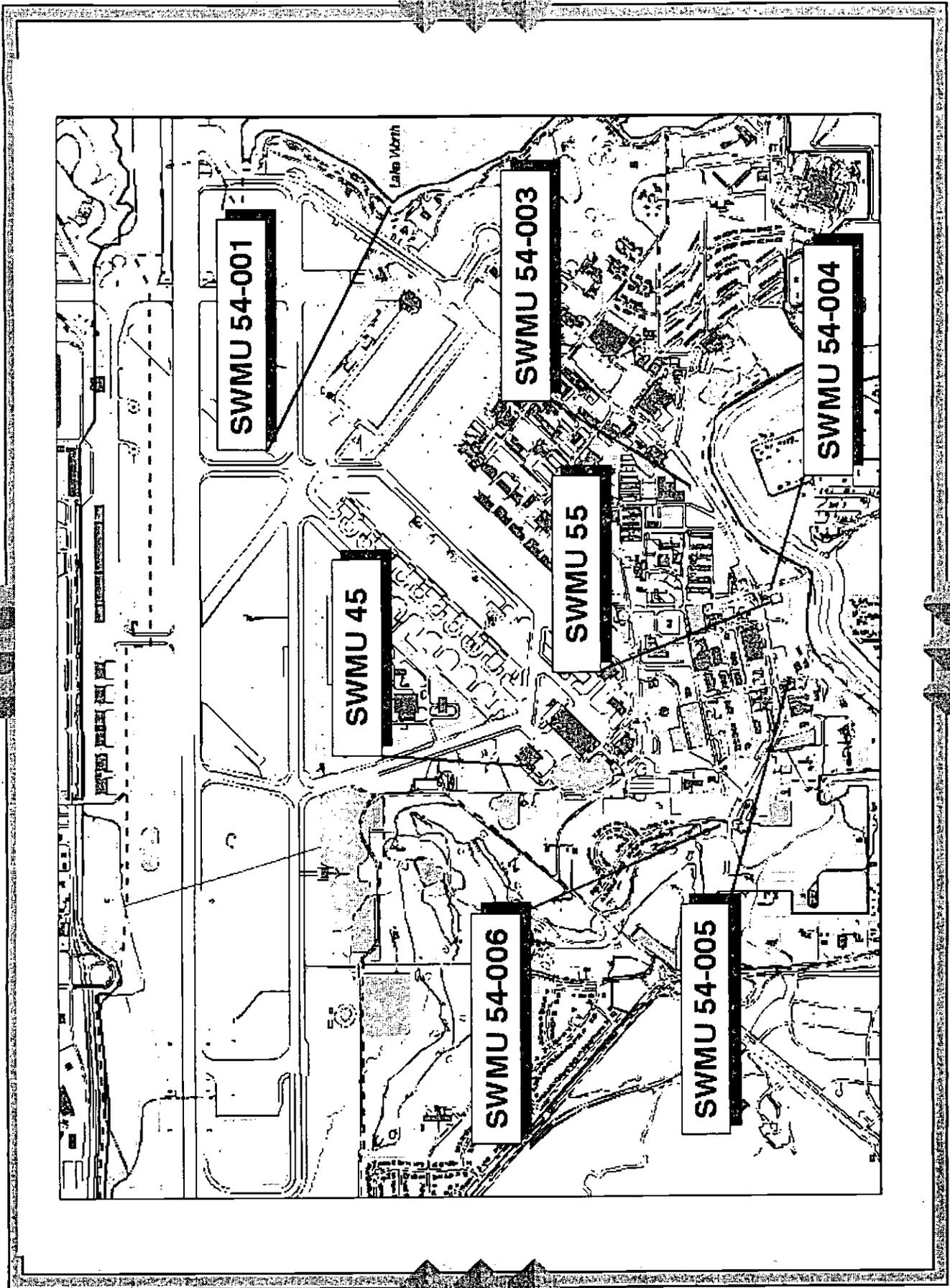
- SWMU 45--Waste Oil Tank Vault
- SWMU 54--Storm Water Interceptors (5 total)
- SWMU 55--East Gate Oil/Water Separator

◆ Technical approach presented to TRNCC earlier today.

◆ Field investigations are planned to begin later this month.

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Basewide Oil/Water Separators

- ◆ IT Corporation completed the second phase of field investigations at 11 Oil/Water Separators located throughout the base.
 - Included soil and groundwater sampling.
- ◆ Phase II results are currently being evaluated with recommendations for site closures and additional investigation requirements to be submitted to AFCEE in August 2000.

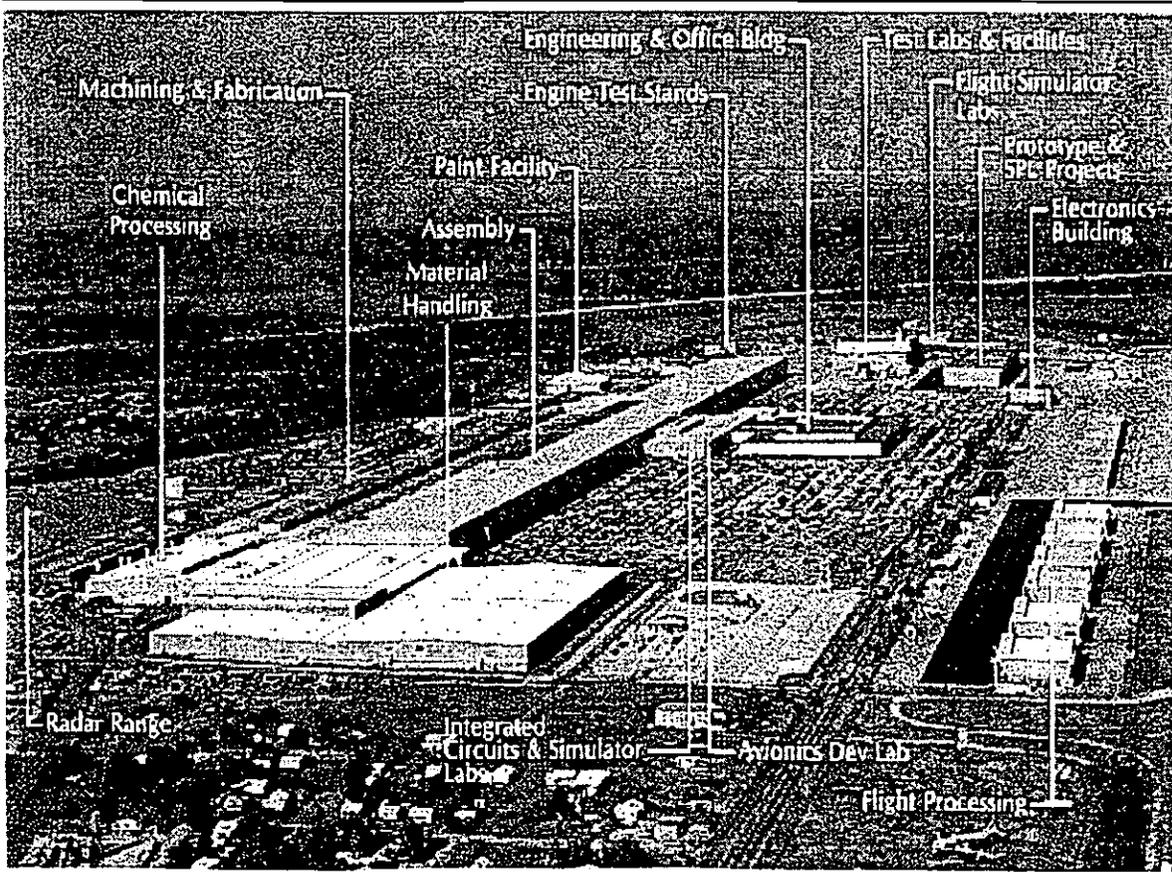
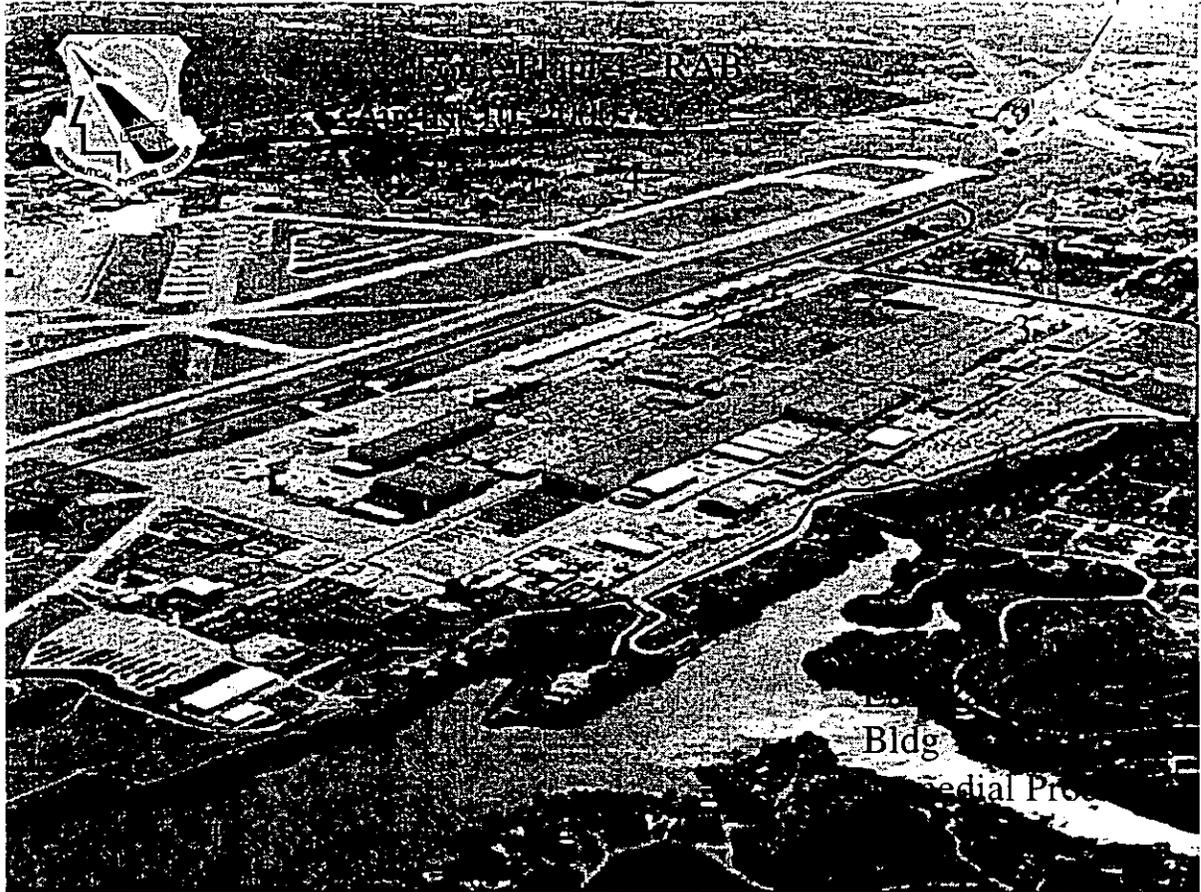
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Groundwater Sampling and Analysis Program (GSAP)

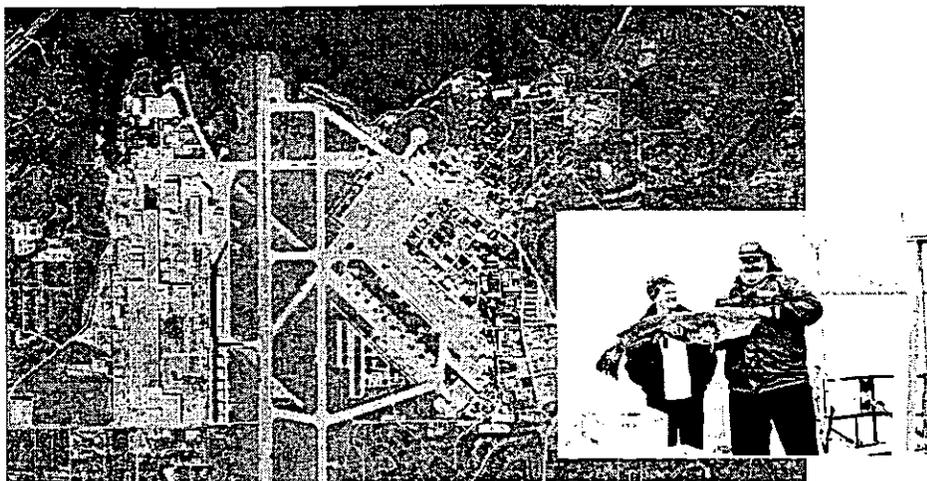
- ◆ Draft April 2000 Quarterly Report submitted to AFCEE in July.
 - The report presents plume characteristics and trends from data collected during the April 2000 groundwater sampling event.
- ◆ Quarterly groundwater sampling conducted last month: 33 wells sampled.
- ◆ Monitoring Well Abandonment/Repair 14 monitoring wells were abandoned in June and 5 were repaired in July.





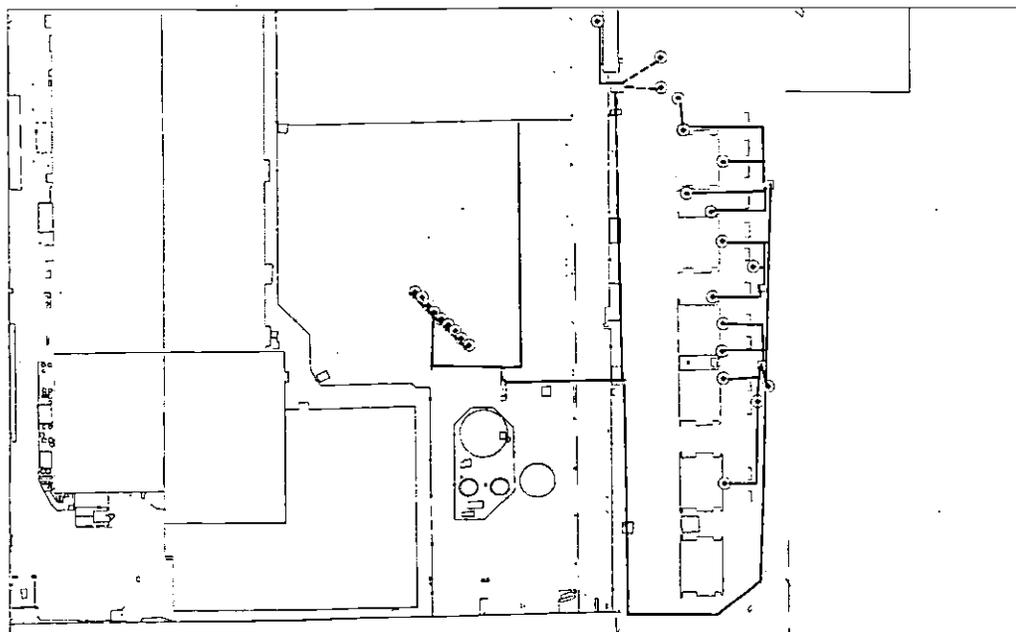
Lake Worth Sediment Sampling

- USGS Dr. Peter Van Metre- Austin TX
- \$200K
- Follow-up to Fish Tissue Sampling
- Will focus on PCB's in sediment and whether additional contamination is continuing to migrate into the lake (based on depth of PCBs)

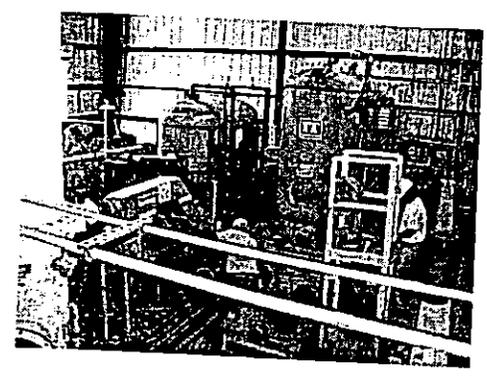
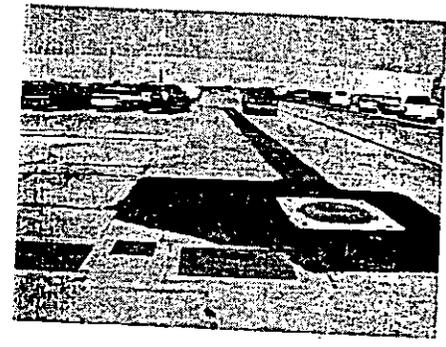
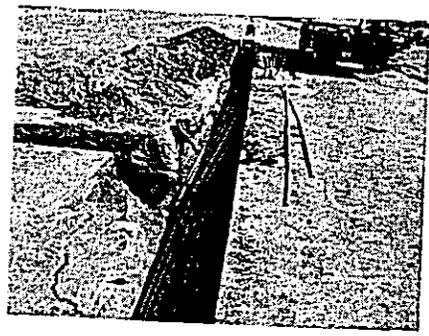
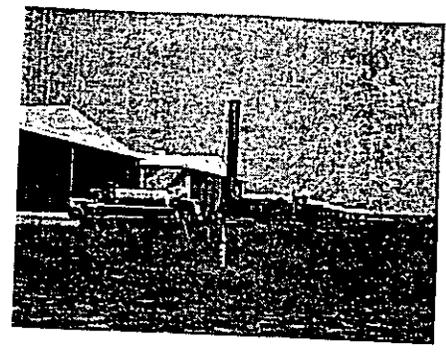
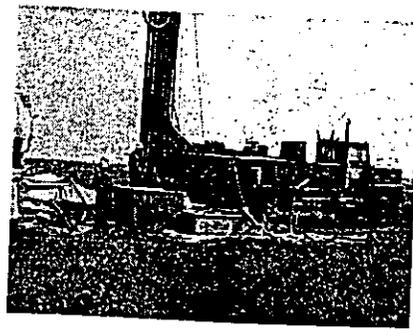


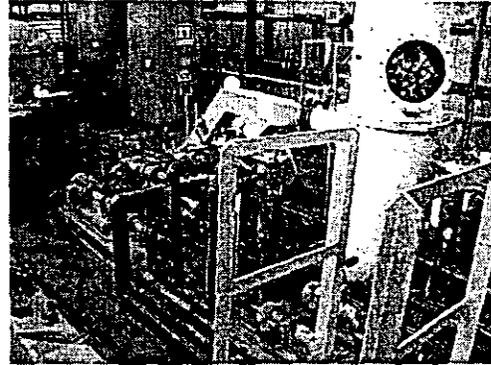
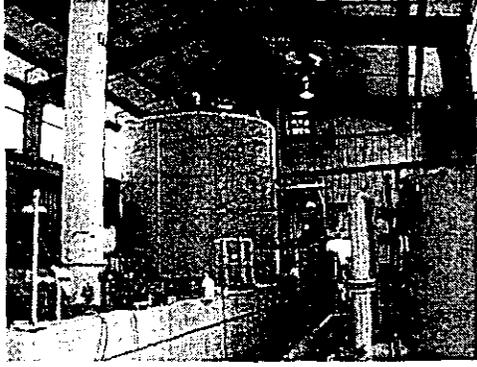
East Parking Lot Remedial Action

Operational Sept 2000!!!

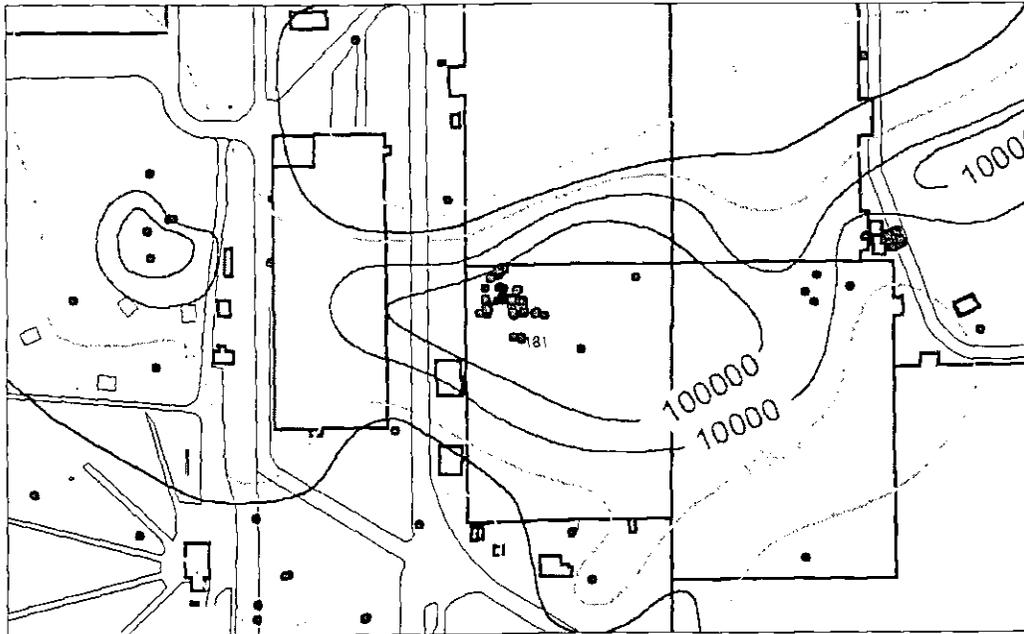


East Parking Lot Groundwater Treatment Sys.

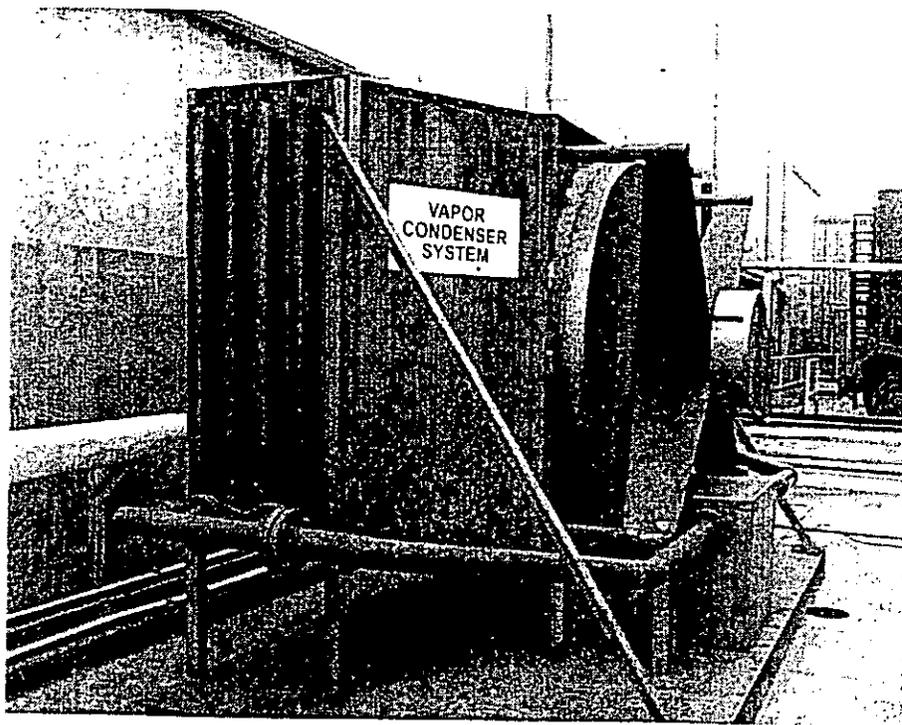
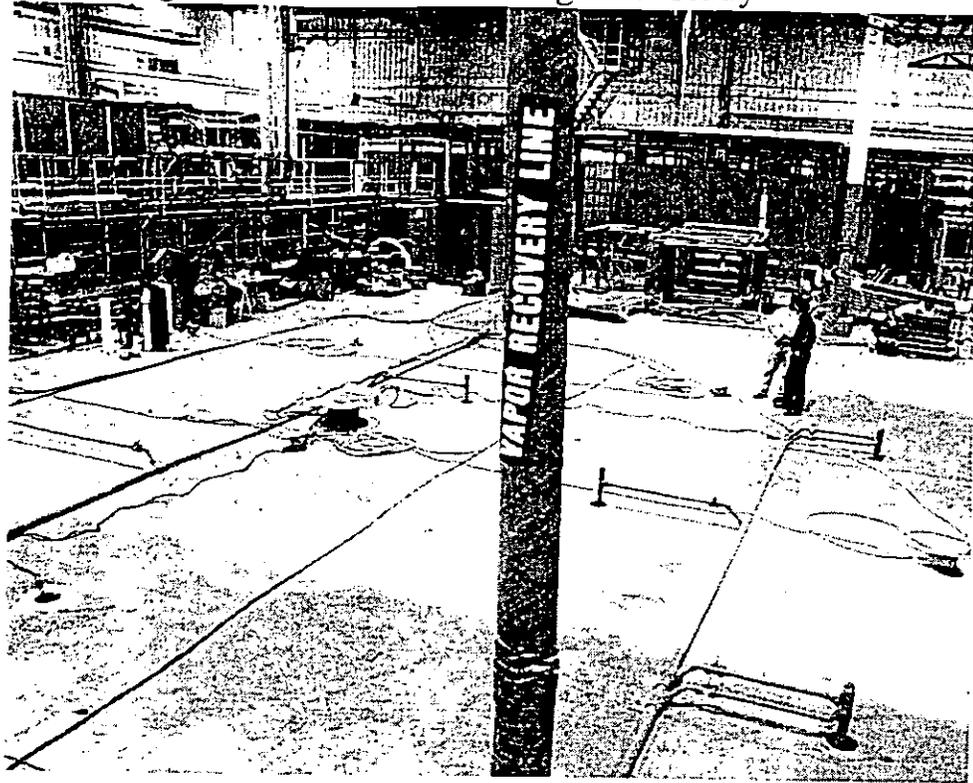




Building 181 Soil Vapor Extraction and SPH



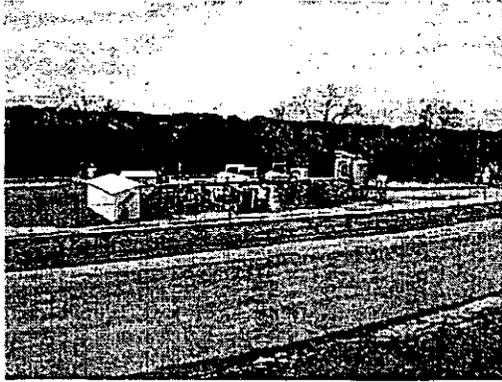
Bldg 181 - Six Phase Heating Pilot study



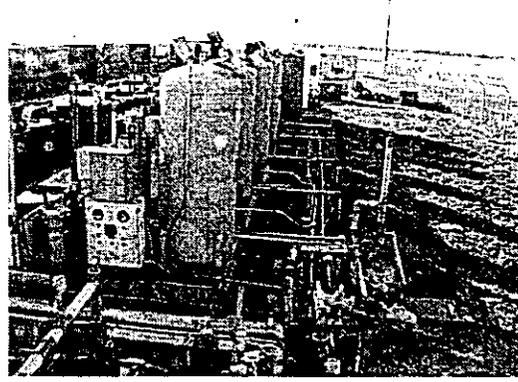
Remedial Process Optimization- Phase II Study

- Make sure the treatment systems are effective and efficient. Hope to save future long-term operating \$\$.

Landfill #3



Landfill #4/5 Carswell



OCT 10 REC'D



**The Air Force Plant 4 Administrative Record
has been converted to compact disk (CD)
and is available for viewing at the
White Settlement Public Library
8215 White Settlement Road,
White Settlement, Texas**

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE