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NAS FORT WORTH
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DRAFT MEETING MINUTES FROM 3 MAY 2007 RESTORATION ADVISORY BOARD
MEETING NAS FORT WORTH TX
5/3/2007
RESTORATION ADVISORY BOARD



CARSWELL AFB
TEXAS

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 753



**Carswell/Plant 4
Restoration Advisory Board Meeting
May 3, 2007
6:00–8:00 pm**

Agenda

Welcome/Introductions/Minutes	5 minutes
Westworth Redevelopment Authority Update	5 minutes
Action Items	
Air Force Plant 4/George Walters Program Update	20 minutes
– Environmental Review	
– 5-Year Review Update	
– Recent Activities	
– Future Activities	
– 2008 Budget Submittal	
Carswell Off-Base/Sonja Coderre Air Force Real Property Agency Program Update	20 minutes
– Golf Course Transfer Update	
– Weapons Storage Area Update	
Next Meeting Agenda	5 minutes
Open Discussion/Questions	5 minutes

CARSWELL/PLANT 4 RESTORATION ADVISORY BOARD MEETING

DRAFT Summary Minutes of May 3, 2007 Regular Biannual Meeting

A regular meeting of the Carswell/Plant 4 Restoration Advisory Board (RAB) was held May 3, 2007 at the Lockheed Martin Recreation Association Ranch House, 3400 Bryant Irvin Road. The RAB meeting began at 6:10 p.m.

AGENDA

Welcome/Introductions/Minutes

Westworth Redevelopment Authority Update (Leland Clemons)

Action Items

Air Force Plant 4 (George Walters)

Program Update

- Environmental Review
- 5-Year review
- Recent Activities
- 2008 Budget
- Future Activities

Carswell Off-Base (Sonja Coderre)

Air Force Real Property Agency

- Golf Course Transfer Update
- Weapons Storage Area Transfer

Next Meeting Agenda

Open Discussion/Questions

Ms. Chris Baack, Community Co-Chair, called the meeting to order. Introductions were made by all in attendance. The minutes from the November 2006 RAB meeting and the February 2007 RAB Executive Session were brought up for approval. Both minutes were approved.

WESTWORTH REDEVELOPMENT AUTHORITY

Leland Clemons provided an update on the activities of the Westworth Redevelopment Authority. Mr. Clemons provided some background for the new people in the audience. He said seven years ago the Air Force transferred about 400 acres of unsecured property from the Carswell AFB. This was done through a lease agreement and the purpose was to stimulate

growth and job creation in an area that had been impacted by the transition of the base to a Naval Air Station and downsizing at Lockheed Martin. There were two charges from the Air Force: job creation and economic growth.

Because of environmental issues associated with the property, cooperation with the Air Force during cleanup was very important. Additionally, building a sustainable, diversified tax base for the local cities was given a priority.

The goal for job creation was 1200 and there are currently over 750 permanent jobs. This does not take into account all the construction jobs. Mr. Clemons said he believed the goal would be reached in 2008. With residential development having the ability to bring in 400-450 residents, the project has significant growth and opportunity for employment.

A question was asked about the location of Sam's and Walmart. Mr. Clemons said the parking lot was in White Settlement and the buildings were in Westworth Village. A provision in state law allowed for tax revenue sharing between the two cities.

Mr. Clemons said it was not uncommon for pockets of undeveloped property to exist due to the presence of a military base. Across the road are just such properties that are now being developed. Mr. Clemons point was that work on Walmart, Sam's, Lowe's, etc is spurring development in the area.

An audience member asked Mr. Clemons if he was working himself out of a job and what would happen to the Redevelopment Authority after the project was completed. Mr. Clemons said the Westworth Redevelopment Authority would turn into an economic development authority like a chamber of commerce for the city. The city would assume any ongoing obligations.

Mr. Clemons was asked about the garden homes that were talked about at an earlier stage in the project. Mr. Clemons said they were on the list of options. Currently the demand for office space outweighs the demand for residential space and with other residential developments in the area, the garden homes are no longer a good fit. If they were built, they would be at the north end of the property which is near the cemetery. That presents another set of issues as some people may not like living near a cemetery.

Mr. Clemons concluded his presentation.

Following Mr. Clemons' presentation, Mr. Sullivan, USEPA, said he wanted to make a statement for the record. He said the Air Force notified the USEPA and TCEQ that one of the monitoring wells on the transferred property had been damaged. The Air Force will rectify this situation.

AIR FORCE PLANT 4

Program Update

Mr. Walters introduced himself as the Restoration Project Manager for Air Force Plant 4 (AFP 4) from Wright-Patterson AFB in Dayton, Ohio.

Mr. Walters gave a brief overview of the history of AFP 4 and the ongoing cleanup for all the new people at the meeting. Using an aerial photograph Mr. Walters indicated the properties of the Air Force, Lockheed Martin, the Navy and the property transferred to Mr. Clemons and the Westworth Redevelopment Authority.

Next, Mr. Walters talked about the Air Force Industrial Plants or government-owned, contractor-operated facilities. In 1989 there were 13 facilities. In 2007 only five facilities remain. Aeronautical Systems Center at WPAFB is the landlord for these facilities and is responsible for the environmental clean up at each.

Mr. Walters said he could not take the credit for work at AFP 4 as there is a team working on the facility that includes the USEPA, TCEQ, Lockheed Martin and the other contractors plus the support staff at WPAFB. He said he could not do the work without them. As an aside, Mr. Walters talked about the Air Force Museum at WPAFB and the many different types of aircraft there. He mentioned the museum is free and encouraged those present to visit if they were ever in the Dayton, OH area.

Mr. Walters said trichloroethene (TCE) was used at the plant to clean grease from metal parts. It is also a breakdown product of perchloroethene (PCE) which is used in dry cleaning. TCE is heavier than water and sinks. Mr. Walters said fuel is easier to clean up as it floats on top of the groundwater where the microbes can get to it and break it down. Because TCE is heavier than water it is harder to treat.

The other chemical at AFP 4 is polychlorinated biphenyls (PCBs). PCBs were used in many different products including caulk, roofing material, sealant, and transformer oil. It was outlawed in the US in 1978 but is still used by other countries. That is why it is found in polar bears today. PCBs do not like water and when sampled are not found in water but are found in the sediment.

In the 1940s large pits were dug for wastewater. The water would evaporate and leave the contaminants behind. With Superfund, these contaminants are not allowed to be left in the soil so the pits must be dug up and hauled off to landfills. This is a very big and expensive job.

Next, Mr. Walters talked about DNAPL. Dense Non-Aqueous Phase Liquids are the thickened portion of solvents. This DNAPL sinks to the bottom where it pools on the bedrock. If there are fractures in the bedrock, the DNAPL will settle into these fractures and migrate along the fracture spreading out from the original location. This makes finding and treating DNAPL very difficult.

Mr. Walters said the site has various levels of bedrock and that the water table also varies in depth. Because of this a number of wells must be installed to different depths. He showed a map of the site with all of the wells, borings and survey points to illustrate the amount of effort taken to characterize the site. All of the data collected is used to develop groundwater models. These models are very helpful in determining the work that needs to be conducted. The data also established the amount of contamination at a given location. Contamination is measured in parts per million (ppm) or parts per billion (ppb). Mr. Walters gave examples of equivalent measurements to illustrate what is meant by ppm and ppb.

Following this, Mr. Walters showed an animation of the groundwater plume with successive outlines to show where the plume was at the beginning of the cleanup and where it has been and at what concentrations as the cleanup continues. He indicated on the animation the locations of the treatment systems.

Mr. Sullivan, USEPA, added the Record of Decision for the site was signed in 1996. The treatment systems were installed in 1998-99 and by 2001-02 the full systems were in place and the site was considered operational and functional. Four years later the systems have been very effective. The plume has retracted about 1200 feet from the Trinity River and concentrations have dropped dramatically. Because of this progress, in September 2006, the site was deemed construction complete by the USEPA. This is a very important measure of success by the USEPA.

To find TCE in the groundwater and remove it costs approximately \$30-\$40/pound to destroy for DNAPL. For TCE in the soils using the electrical resistance heating method the cost is approximately \$3000/pound. So far 122 million gallons of groundwater have been treated over the past seven years from the East Parking Lot treatment. Mr. Wice from Shaw added the Air Force was unique in their use of a treatment train, multiple treatment technologies, to clean a site instead of relying on just one.

Mr. Walters said every 5 years the Air Force has to review the ROD for any changes in laws and regulations, site conditions, and treatment. The second ROD Review is in process now and will be out for public review.

Next Mr. Walters discussed the 2008 budget and indicated the projects he wanted to address in 2008. In particular, he would like to address hotspots where current treatment isn't working quickly enough. He would also like to extend the permeable reactive barrier to catch water going under the golf course. In the future, the USGS will be sampling fish and the food supply in Lake Worth and the next round of groundwater monitoring samples will be conducted in October. The spring round of sampling was just completed and these are conducted every six months.

Mr. Walters concluded his presentation.

CARSWELL OFF-BASE

Program Update

Ms. Sonja Coderre introduced herself as Public Affairs, Air Force Real Property Agency. Ms. Coderre explained that she was filling in for Ms. Landez, the BRAC Environmental Coordinator. Ms. Coderre also said this would be the last official meeting for AFRPA as they had transferred the last remaining property to Mr. Clemons and the WRA. Ms. Coderre did not know if Ms. Landez would be at the next meeting but did say AFRPA would be available to attend the RAB meetings or answer any questions that may come up in the future.

Ms. Coderre provided a brief update on the status of the last of the AFRPA properties. The deed for the Solid Waste Management Unit (SWMU) 66 was accepted by TCEQ and released AFRPA from any post closure care. AFRPA has submitted a request to close the site.

An After Action Report was submitted to TCEQ, EPA and the Air Force Safety Center on the Weapons Storage Area Clearance. All three agencies approved the report and it was subsequently submitted to the Department of Defense and approved in February 2007.

The last remaining piece of the golf course, 187 acres, was transferred to the Westworth Redevelopment Authority in April 2007 with the deed signing by AFRPA and WRA. All pertinent documents have been approved and signed by the appropriate agencies, including the Explanation of Significant Differences (ESD).

Lastly, Ms. Coderre said the 247 acre Weapons Storage Area transfer is almost complete. The DoD has approved the clearance of the range for residential use. The EPA has concurred on the draft Finding of Suitability to Transfer and the Army Reserves have submitted a request to the Air Force for the property and the Air Force has approved that request. The target transfer date is June 2007.

Mr. Weegar, TCEQ, asked what the Army Reserve planned to do with the property. Ms. Coderre did not know at that time. A community member asked for an explanation of an ESD. Mr. Sullivan said the ROD for the property was signed in 1996. It stipulated contamination from AFP 4 could not leave the property. With the transfer of the golf course, the contamination plume is now going off site onto WRA property. The ESD is a regulatory document to explain differences to the ROD. The Air Force submits it to the EPA and it will be placed in the Administrative Record.

The ROD did not stipulate institutional controls on the plume if it did not go off site. Now that it does, the ESD stipulates an institutional control program must be implemented, monitored, and maintained to protect the public.

Ms. Pate said she had been on a tour at the bunkers and asked if they were not going to the public. Mr. Weegar said originally the bunkers were to be cleaned to allow for residential use. However, if another federal agency has a need and ask for the property, they get bumped up on the list. The Army Reserve made such a request. Mr. Weegar added there are farms, houses and ranch land around the bunkers.

Ms. Coderre concluded her presentation.

NEXT MEETING

The next RAB meeting will be October 25, 2007. The RAB meeting will be held at the Lockheed Martin Recreation Association Ranch House, 3400 Bryant Irvin Road, Fort Worth, Texas. A notice will be sent out with the draft minutes prior to the meeting

OPEN DISCUSSION/QUESTIONS

Ms. Baack asked about a tour for the RAB. Mr. Doepker said he would need to look into it and make the arrangements if a tour were to be held. With the next meeting being on Thursday, October 25, the evening before was suggested as an option. Ms. Balakrishnan said her teaching schedule for the fall quarter was Tuesday and Thursday evenings.

Mr. McGraw outlined the Community Involvement Plan for AFP 4, the Administrative Record and the community involvement part of the cleanup for the students.

There were no further questions or discussion.

The meeting was adjourned.

IN ATTENDANCE (signed-in)

Carswell Off-Base

Sonja Coderre, Public Affairs, Air Force Real Property Agency

Air Force Plant 4

George Walters, AFP 4 Project Manager, ASC, Wright Patterson Air Force Base

John Doepker, Project Manager, ASC, Wright Patterson Air Force Base

US Air Force

Mike Hawkins, Public Affairs, AFCEE

Texas Commission on Environmental Quality

Mark Weegar

Tim Sewell

U.S. Environmental Protection Agency

Robert Sullivan

Noel Bennett

Lockheed Martin

Christy Yorek

Community

Chris Baack, RAB Co-chair

J'Nell Pate

Vince Wilcox

Meena Balakrishnan

Leland Clemons, Westworth Redevelopment Authority

George Madrid

AiVan Vo

Monica Jones

Moe Kothan

Norma Nunez

Air Force Contractors

Dan Schultz, Earth Tech, Inc.

Dave Parse, Earth Tech, Inc.

Todd Colburn, Booz,-Allen, Hamilton

Rick Wice, Shaw Group

Randall McDaniel, Shaw Group
Gregg McGraw, Shaw Group

Comments/corrections regarding these meeting minutes should be sent to:

Mr. Gregory McGraw
Shaw E&I, Inc.
5050 Section Ave.
Cincinnati, OH 45212
Phone: (513) 782-4752
Fax: (513) 782-4663
e-mail: greg.mcgraw@shawgrp.com

Headquarters U.S. Air Force

Integrity - Service - Excellence

Carswell Off-Base BRAC UPDATE



U.S. AIR FORCE

**Sonja Coderre
Public Affairs Officer
May 3, 2007**



U.S. AIR FORCE

Program Update

- **Project Status**
- **Property Transfer**



U.S. AIR FORCE

Sanitary Sewer System SWMU 66

- TCEQ accepted Deed certification and released AFRPA from post closure care responsibilities for SWMU 66 on 19 January 2007
- AFRPA submitted request to close site on former Carswell AFB Permit to the AFCEE Permit Manager who will in turn submit request to TCEQ



U.S. AIR FORCE

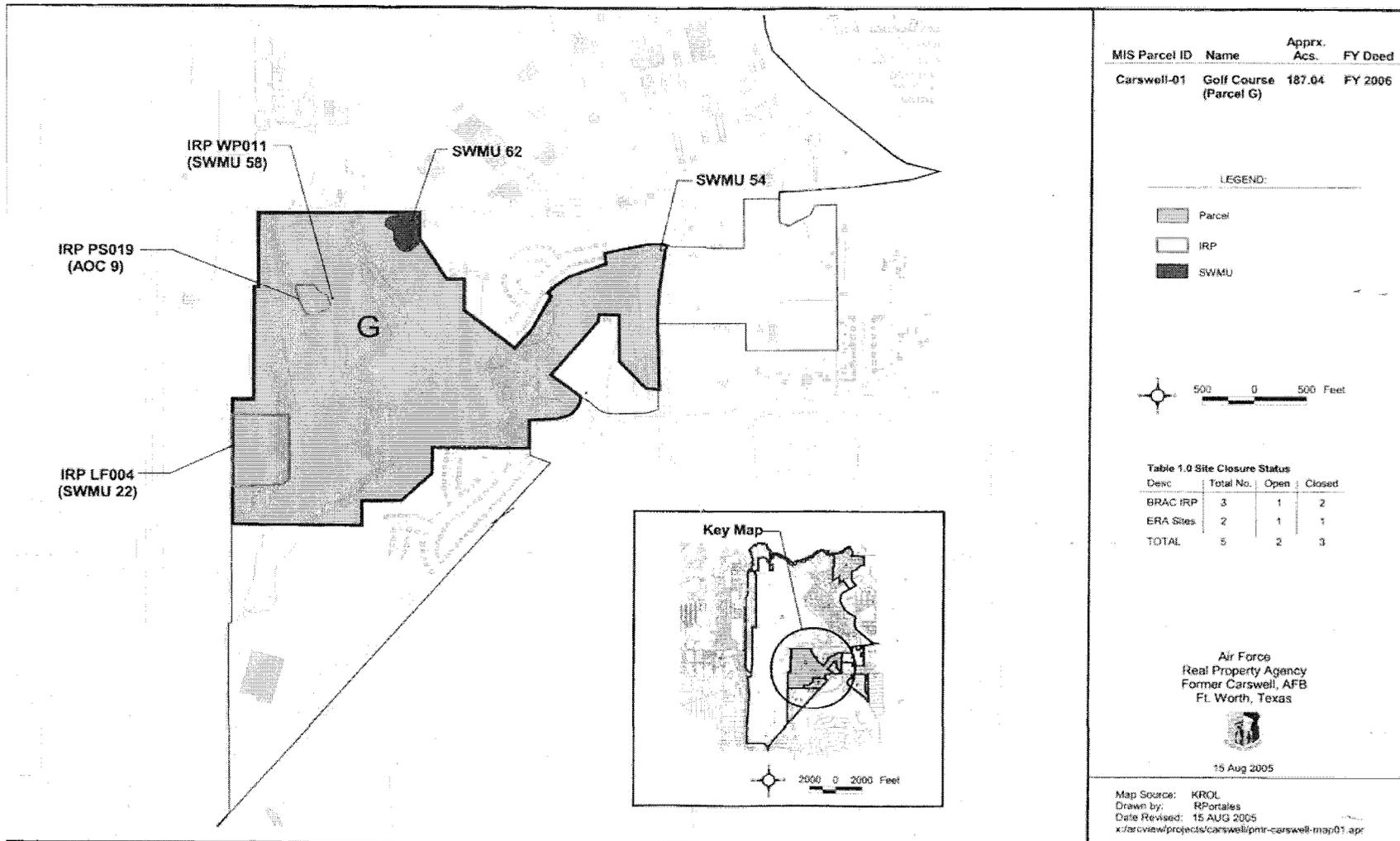
WSA EOD Clearance

- **After Action Report submitted to TCEQ, EPA Region 6, and the AF Safety Center for review October 2006**
 - **EPA provided comment November 2006**
 - **AFSC approved report December 2006**
 - **TCEQ approved report February 2007**
- **After Action Report and clearance approved by DDESB February 2007**



U.S. AIR FORCE

Property Transfer



Integrity - Service - Excellence



U.S. AIR FORCE

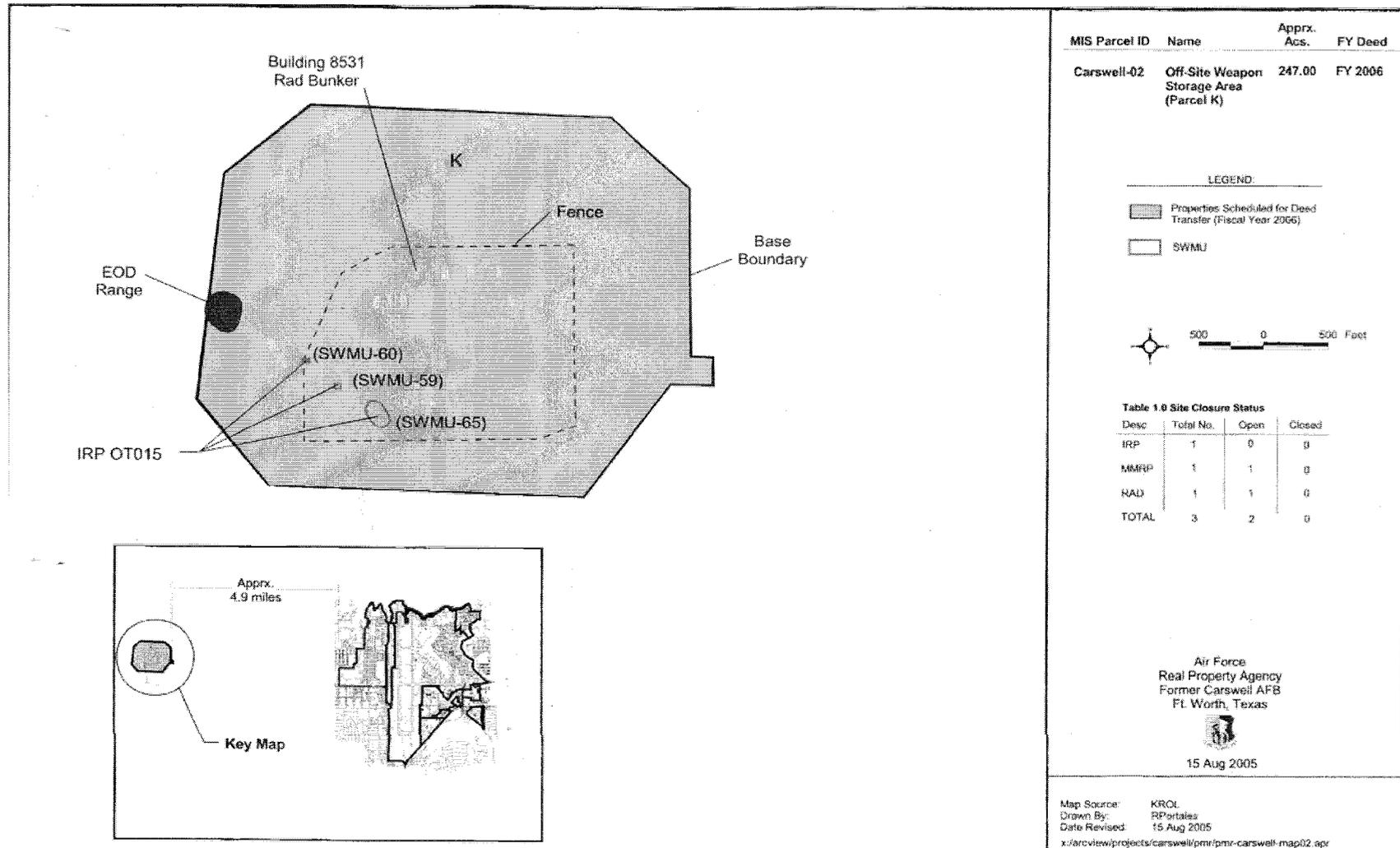
Property Transfer

- **Remainder of Golf Course – 187 acres**
 - **Explanation of Significant Difference (ESD) approved by EPA on 10 April 2007**
 - **Operating Properly and Successfully (OPS) Determination Report approved by EPA on 9 February 2007 pending approval of the ESD**
 - **EPA concurred on Draft Final Finding of Suitability to Transfer (FOST) 11 April 2007**
 - **FOST signed by AFRPA Director 20 April 2007**
 - **Deed signed by AFRPA 24 April 2007 and the Westworth Redevelopment Authority 26 April 2007**
-



U.S. AIR FORCE

Property Transfer



MIS Parcel ID	Name	Approx. Acs.	FY Deed
Carswell-02	Off-Site Weapon Storage Area (Parcel K)	247.00	FY 2006

LEGEND:
 [Shaded Box] Properties Scheduled for Deed Transfer (Fiscal Year 2006)
 [White Box] SWMU



Table 1 0 Site Closure Status

Desc	Total No.	Open	Closed
IRP	1	0	0
MMRP	1	1	0
RAD	1	1	0
TOTAL	3	2	0

Air Force
 Real Property Agency
 Former Carswell AFB
 Ft. Worth, Texas

15 Aug 2005

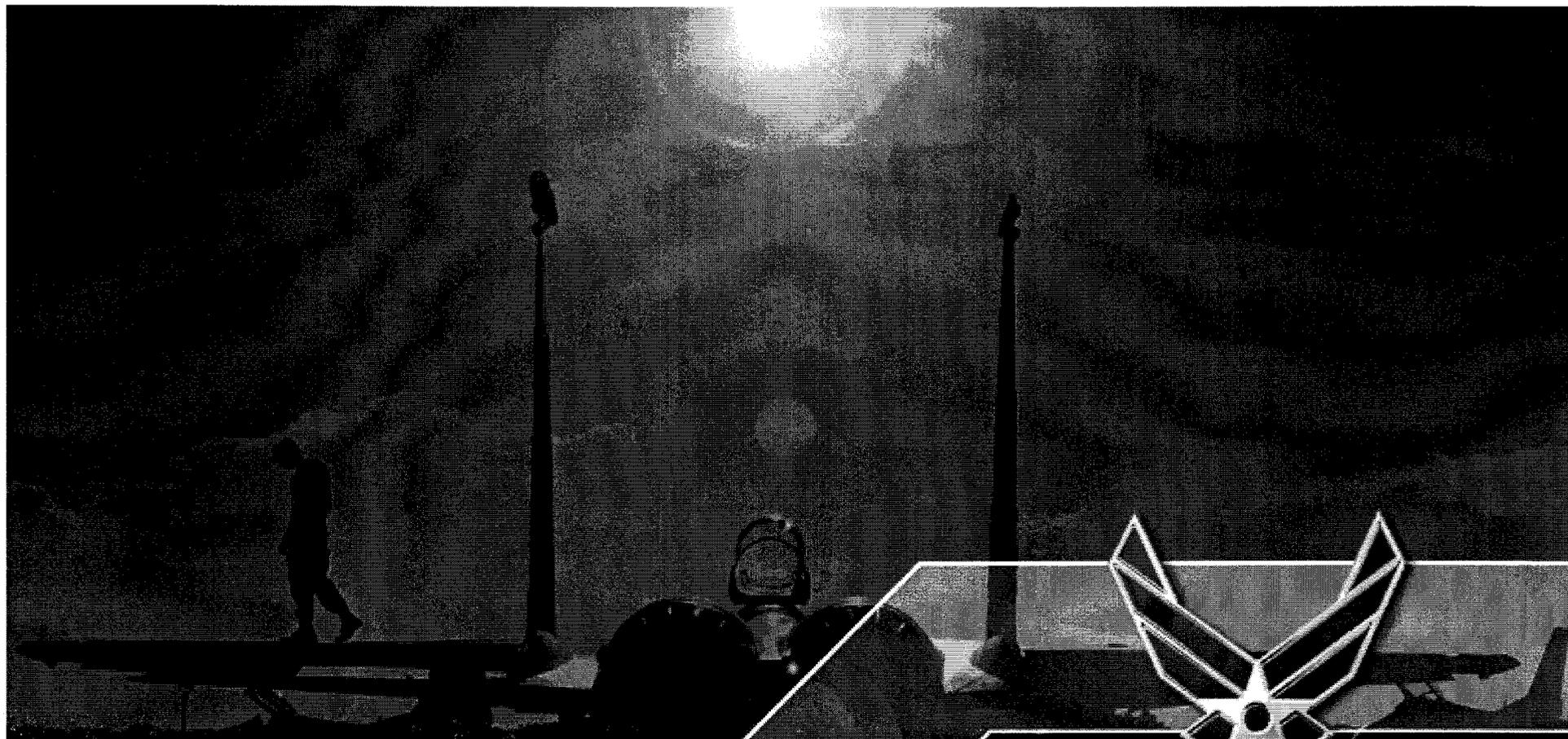
Map Source: KRCL
 Drawn By: RP/rtales
 Date Revised: 15 Aug 2005
 x:/arcview/projects/carswell/pmr/pmr-carswell-map02.apr



U.S. AIR FORCE

Property Transfer

- **WSA – 247 acres**
 - **DDESB approved MEC clearance of EOD range for residential use February 2007**
 - **EPA concurred on Draft Final Finding of Suitability to Transfer (FOST) 10 April 2007**
 - **Army Reserves submitted request for the property and AF approved request DD? April 2007**
 - **Target transfer date – June 2007**

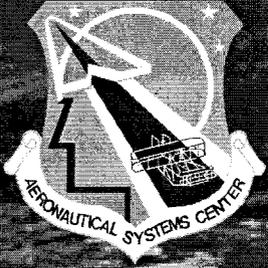


NO ONE ELSE COMES CLOSE

U.S. AIR FORCE



G. CIRUJALES



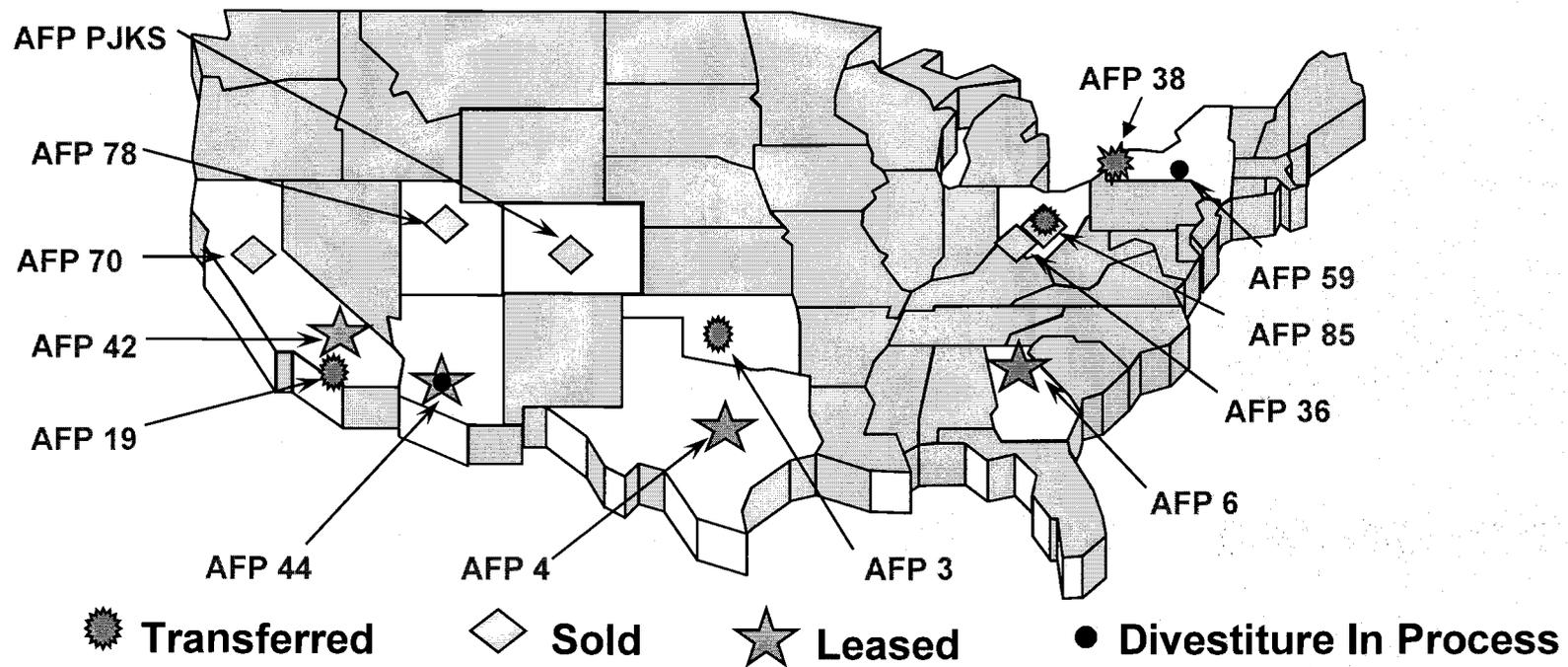
Air Force Plant-4 - RAB
May 3, 2007
George Walters
Wright-Patterson AFB OH



Review for New Members
5 Year Record of Decisions
2008 Budget
Long Term Monitoring
Fish Sampling in August

Air Force Industrial Plants (present and former)

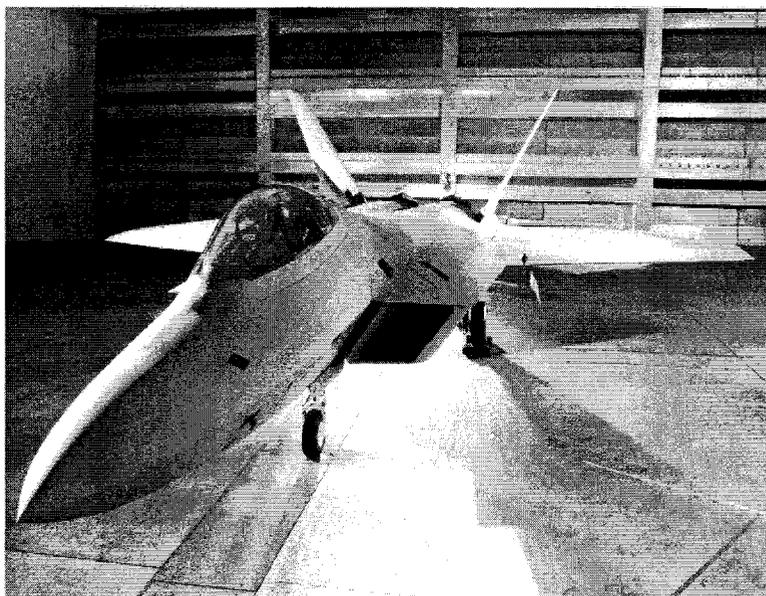
1989 - 13 Facilities; 2007 - 5 Facilities



- | | |
|--|--|
| <p>AFP 3, Tulsa OK - City of Tulsa</p> <p>AFP 4, Ft Worth TX - Lockheed Martin</p> <p>AFP 6, Marietta GA - Lockheed Martin</p> <p>AFP 19, San Diego CA - US Navy</p> <p>AFP 36, Evendale OH - General Electric</p> <p>AFP 38, Buffalo NY - U. S. Army</p> <p>AFP 42, Palmdale CA - Lockheed Martin,
Boeing, Northrop-Grumman</p> | <p>AFP 44, Tucson AZ - Raytheon</p> <p>AFP 59, Binghamton NY - Broome County</p> <p>AFP 70, Sacramento CA - Aerojet</p> <p>AFP 78, Brigham City UT - Thiokol</p> <p>AFP 85, Columbus OH - Private Owner &
Port Columbus</p> <p>AFP PJKS, Waterton CO - Lockheed Martin</p> |
|--|--|



U.S. AIR FORCE



TEAM AFP 4

Aeronautical Systems Center, Wright Patterson AFB, OHIO

23,000 employees, manages all the major Aircraft programs in the Air Force

Acts as owner, landlord Industrial facilities

Home of the National Museum of the United States Air Force

Regulators

Environmental Protection Agency Region VI, Dallas TX

- **Robert Sullivan** 214-665-2223

Texas Commission on Environmental Quality, Austin TX

- **Mark Weegar** 512-239-2360

Contracting/Technical Support

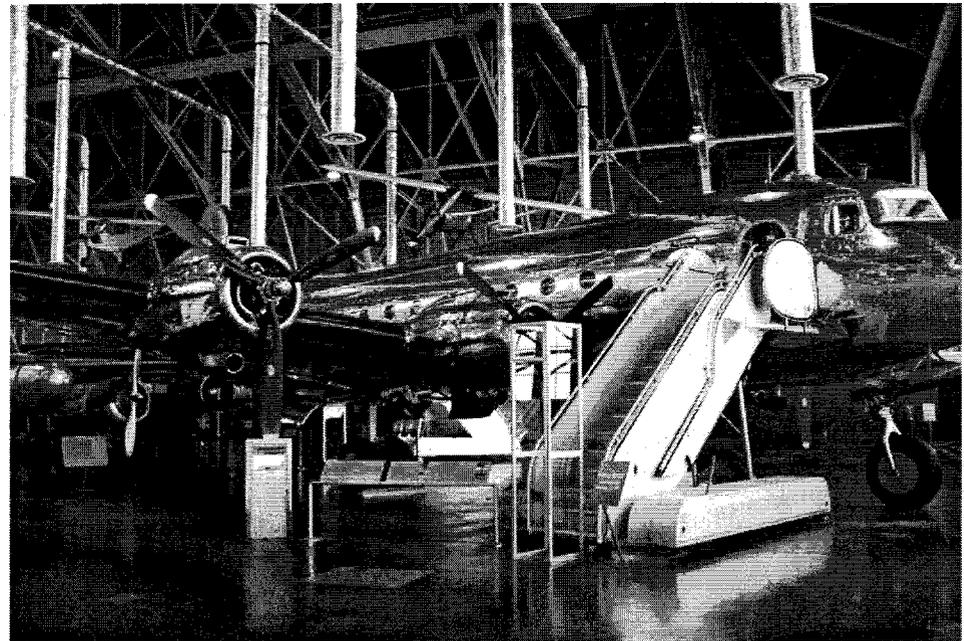
Air Force Center for Environmental Excellence (AFCEE)-
San Antonio, TX

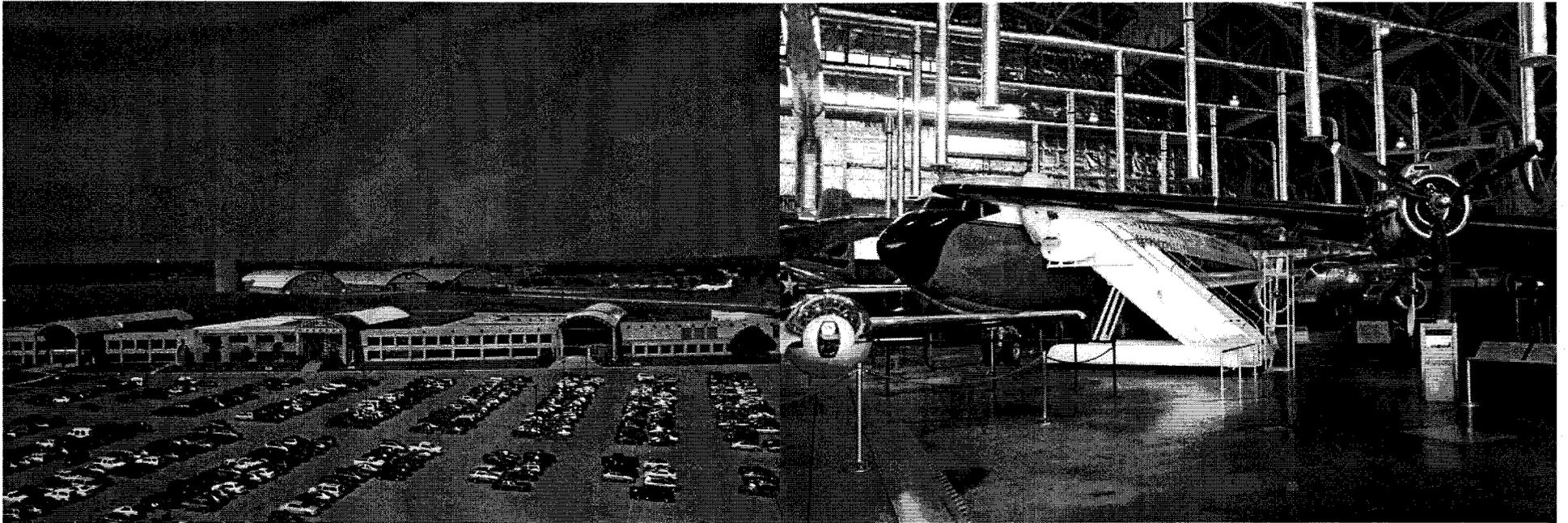
Environmental Contractors

- Shaw Environmental and Infrastructure, Inc. (Operate Treatment Systems)

- Earth Tech, Inc. (Long Term Monitoring)

Lockheed Martin





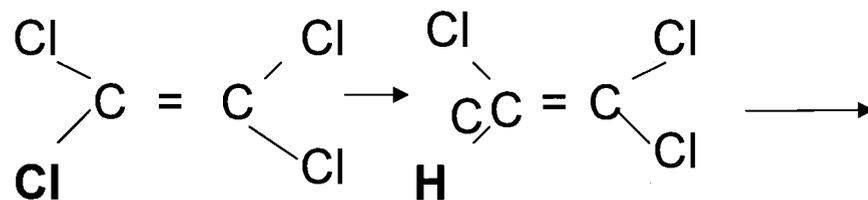
Museum is FREE



Environmental Review

Chemicals being cleaned up from **groundwater**

TCE – Trichloroethene - a degreaser used to clean metal parts, no longer used At the facility. In pure form, heavier than water, sinks!



Break down into less harmful
Compounds.

PCE

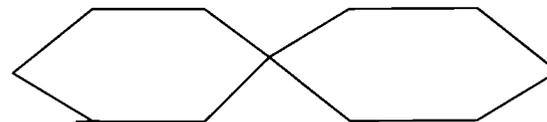
“Dry Cleaner
solution”

TCE

“Metal
cleaner”

Soil

PCBs –
Polychlorinated
Biphenyls



Does not like water!
Likes to bind with soil
And fat.

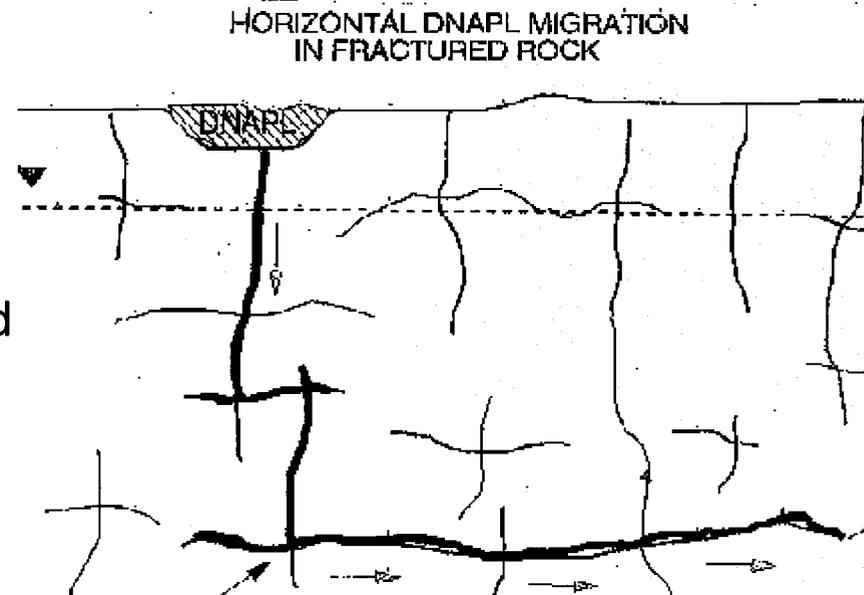
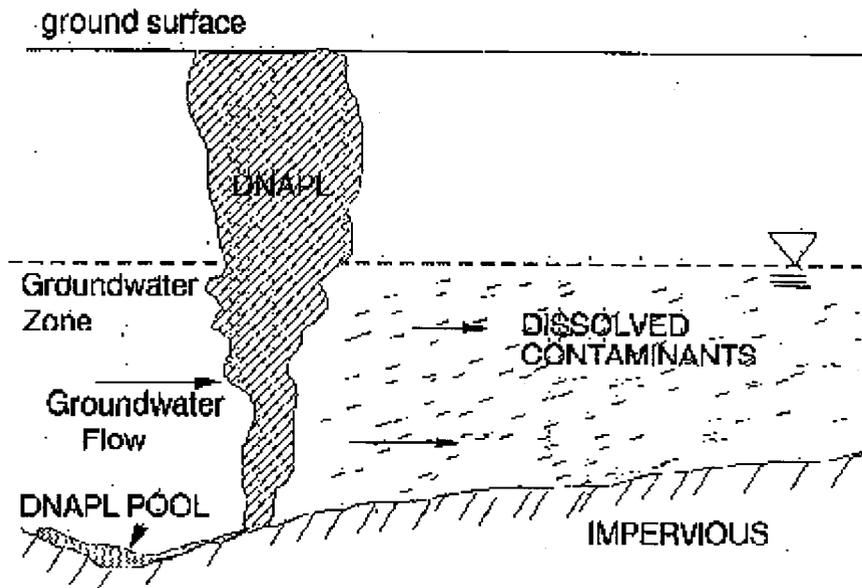
No longer used, outlawed in 1978. Found in fluids, pumps,
Transformers, hydraulic fluids, caulking, etc.

1983 – Remove waste pit.

Are we done???



Some chemicals are heavier than water and sink, and find cracks to settle in.



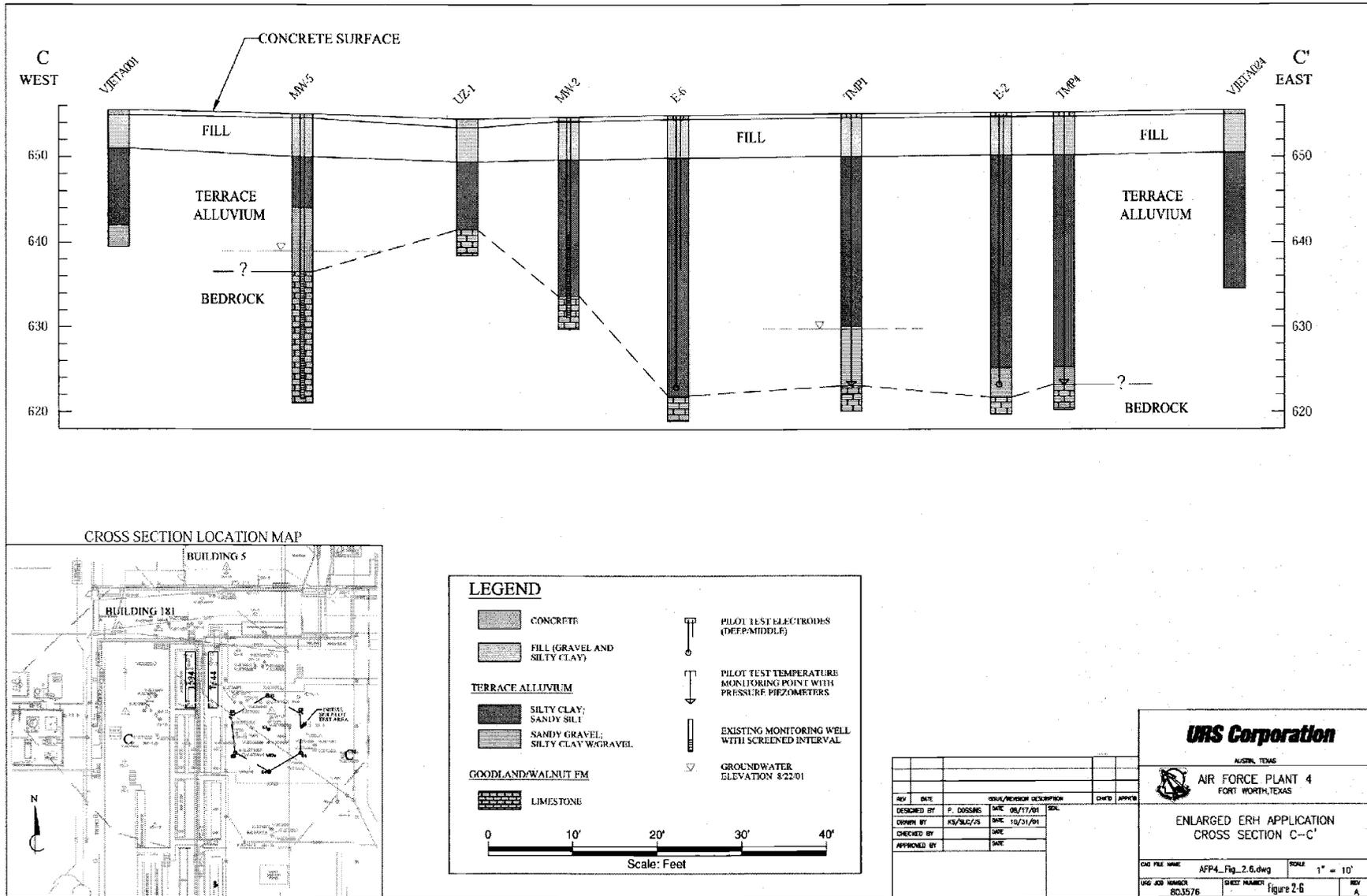
DNAPL – Dense Non Aqueous Phase Liquid

- Solvents

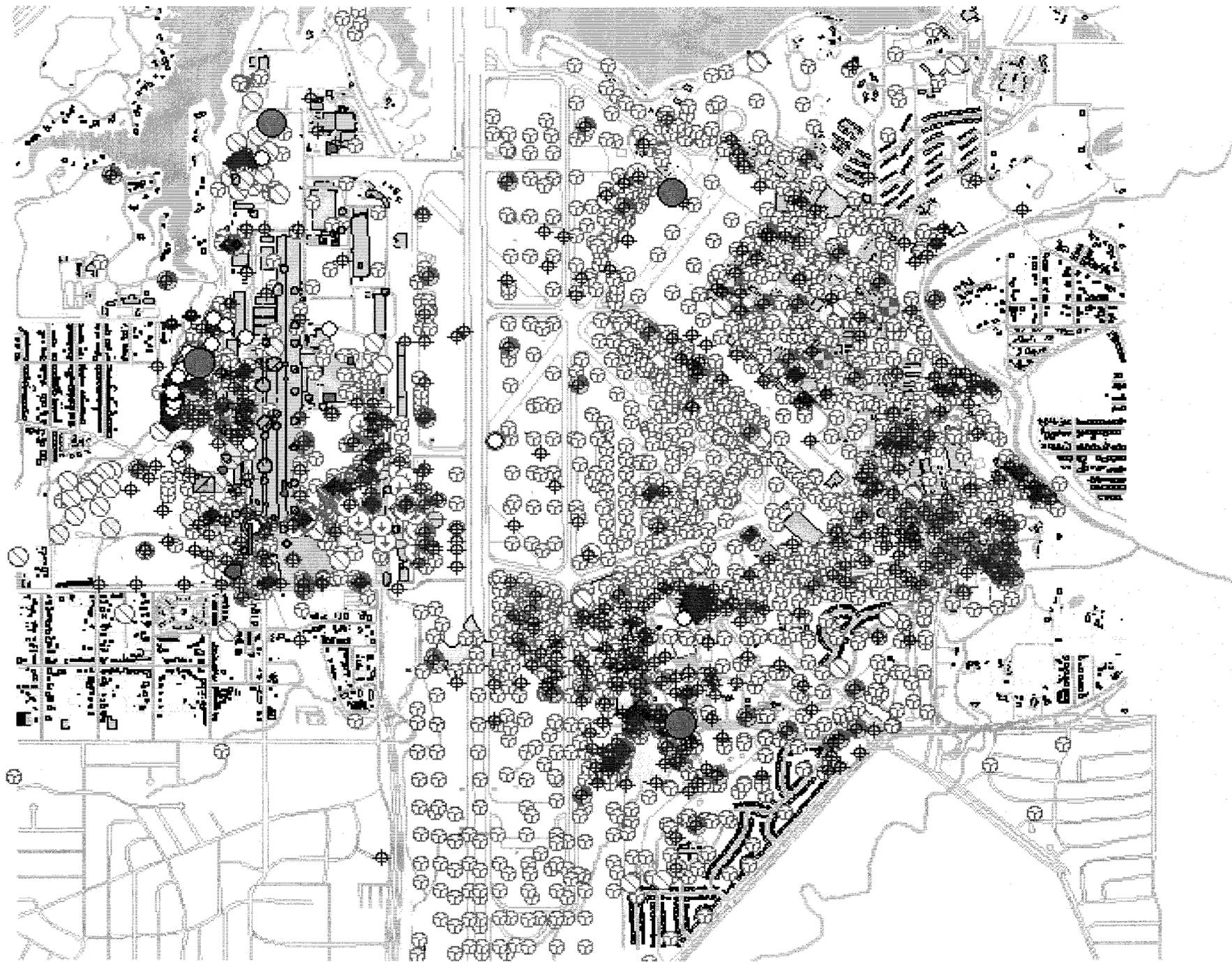
LNAPL – Light Non Aqueous Phase Liquid

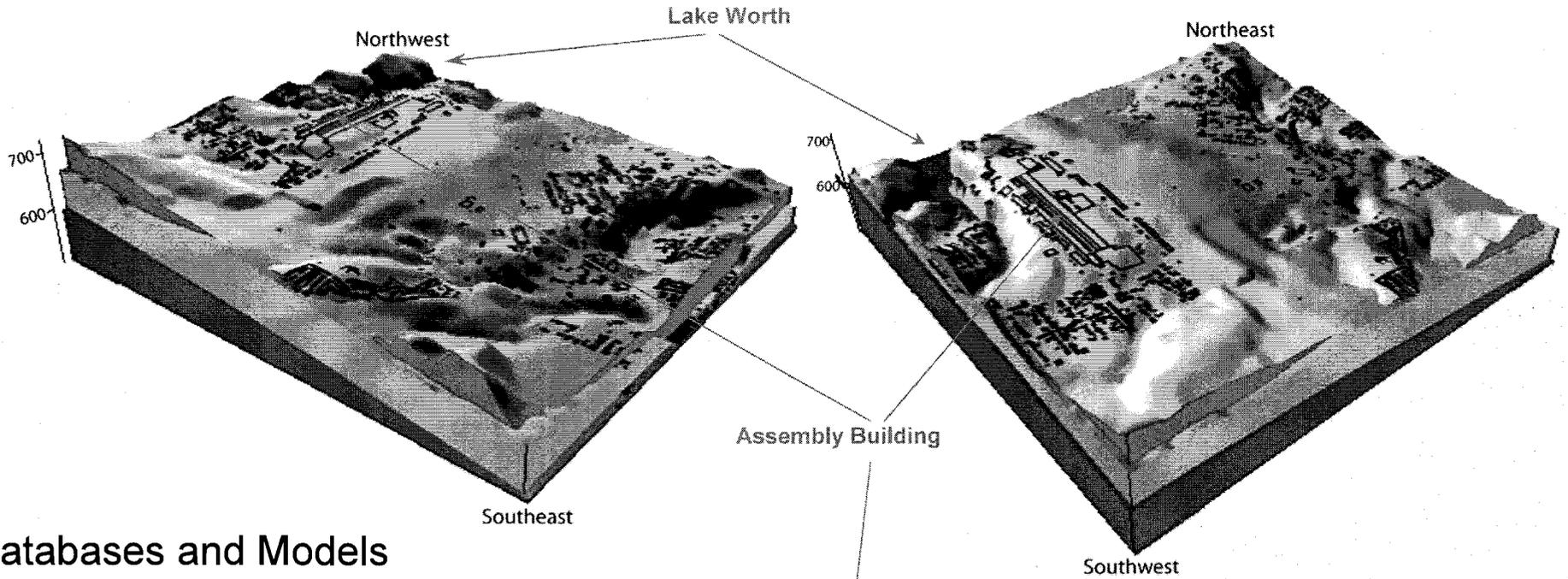
- Jet fuels, oils

Why do we have to put so many holes in the ground and at different depths???

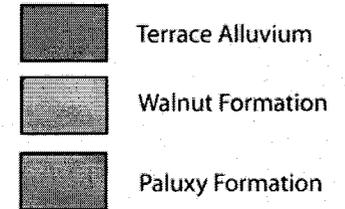
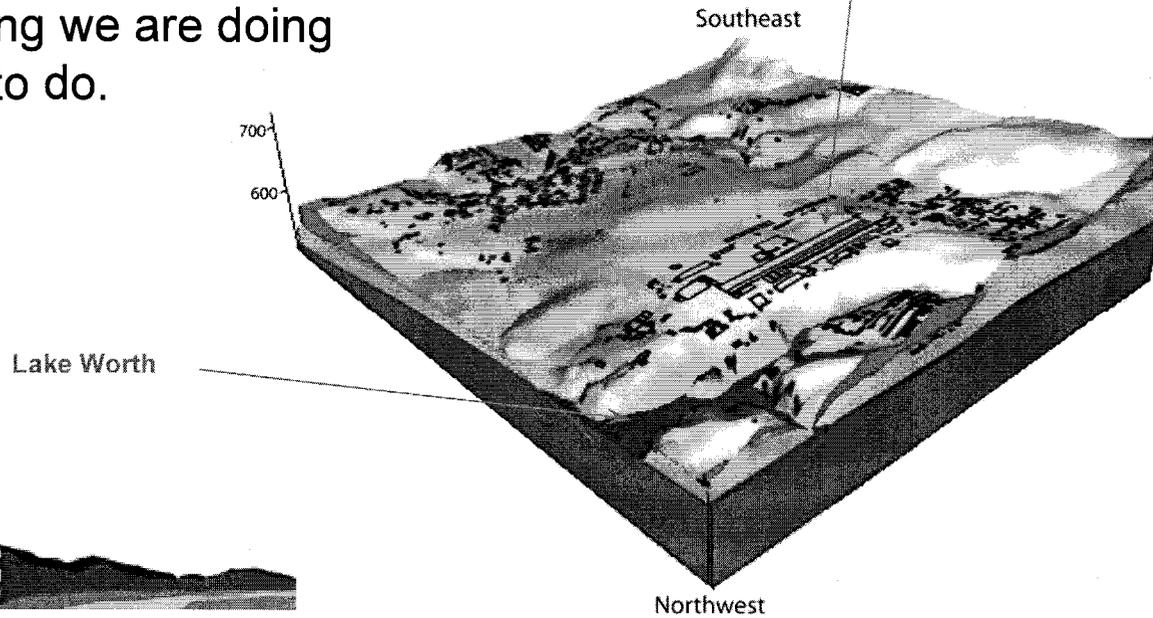


Examples of soil borings, water wells, survey points, etc.





Databases and Models
Help the team keep track of
Everything we are doing
Or plan to do.

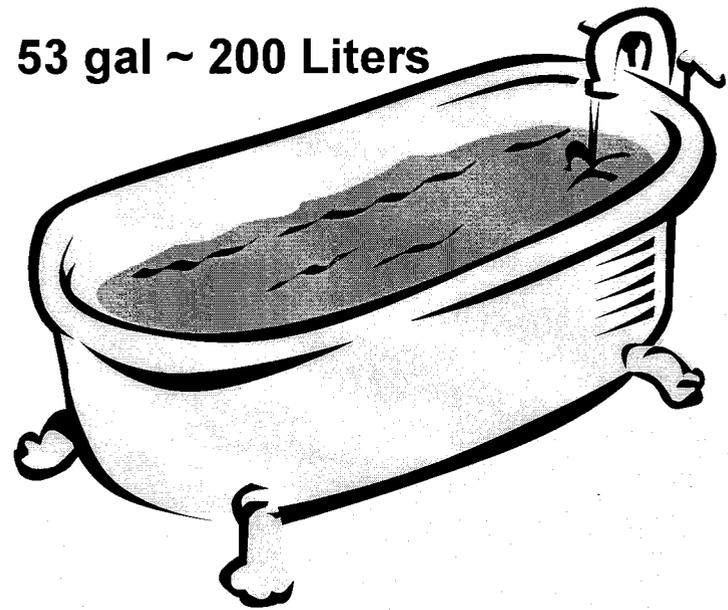


Measurements in Water



1 drop

= 2 part per Million
(ppm)
(mg/L)



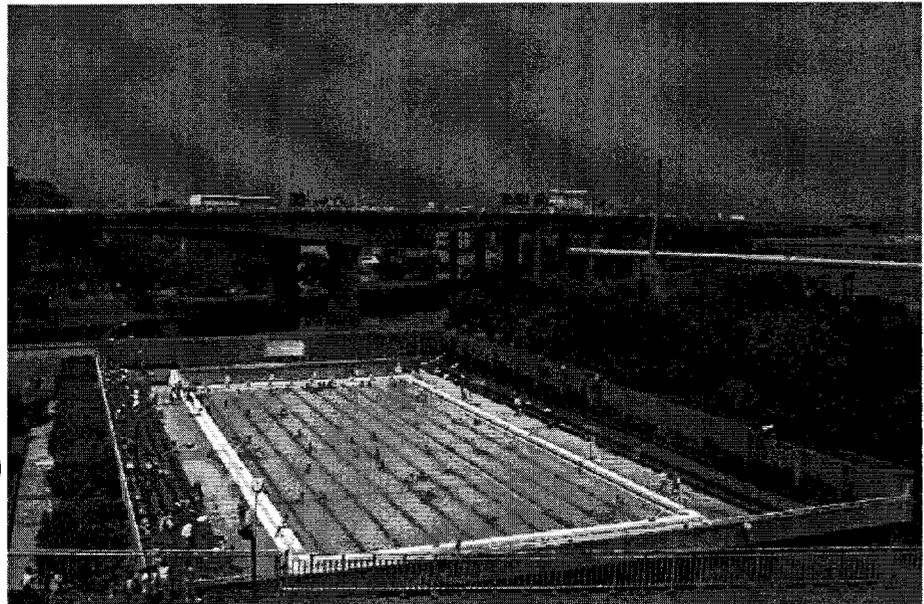
53 gal ~ 200 Liters

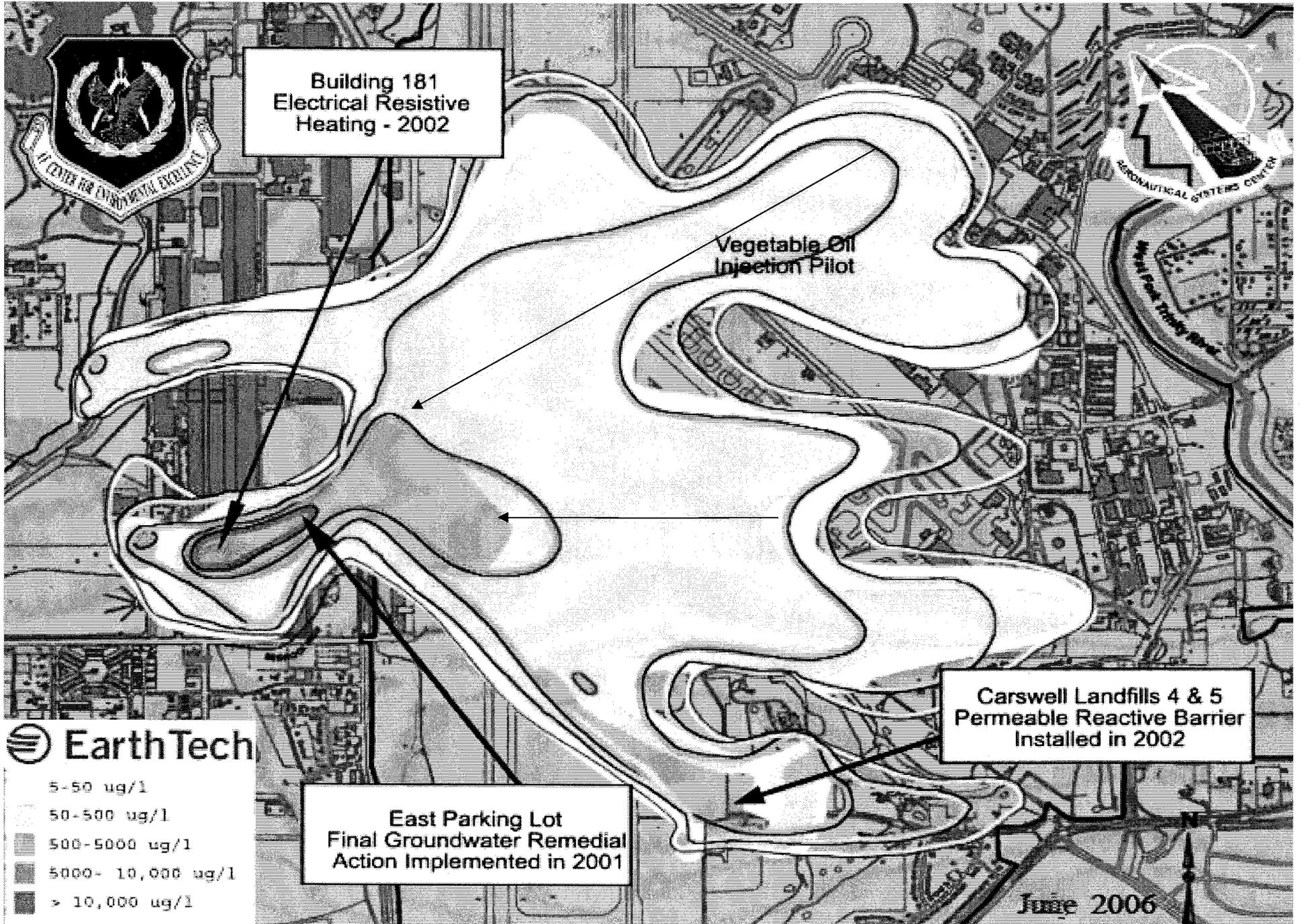
1000 ppb = 1 ppm

= 1 part per Billion
(ppb)
(ug/L)

(or, 1 minute in 1,903 years!)

130,000 gal Olympic Pool ~ 500,000 L





The 2nd 5 Year ROD Review

- Regular “check ups” to make sure the cleanup continues to protect people and the environment. ROD signed 1996.
- Required until the site is cleaned up for unlimited use.
- Checks for changes in **laws**, inspection of the site, treatment systems, ...
- Welcome public comment.
- Last report submitted Feb 03, **approved by EPA Sept 04.**

2008 Budget

1. **Operations and Maintenance**

- Operate treatment systems, well maintenance, etc.

2. **Lockheed Support**

- Utility bills from treatment systems (water, electrical)

3. **Long Term Monitoring of Monitoring Wells and sediment (2 times a year)**

4. **Hot Spot treatment**

- Treat areas that are not decreasing fast enough, reduce risk.

5. *Permeable Wall Extension*

- *Extend under ground wall by Golf Course*



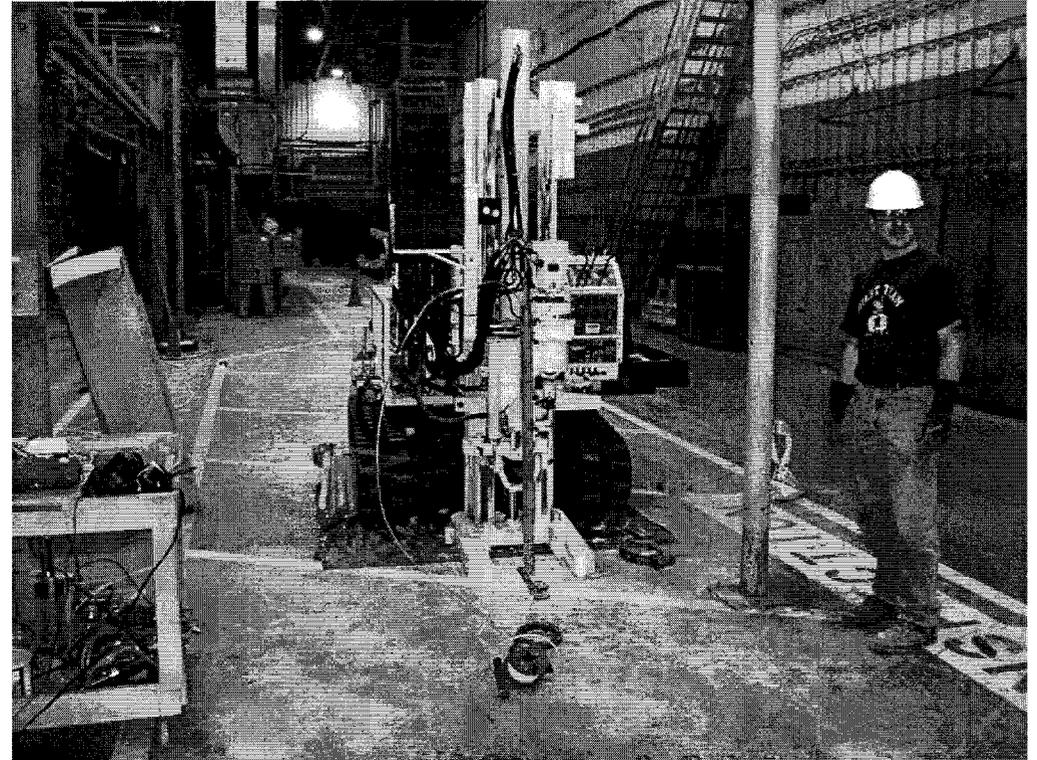
Monitoring well repair and
Abandonment of wells no
Longer needed.

Recent Activities

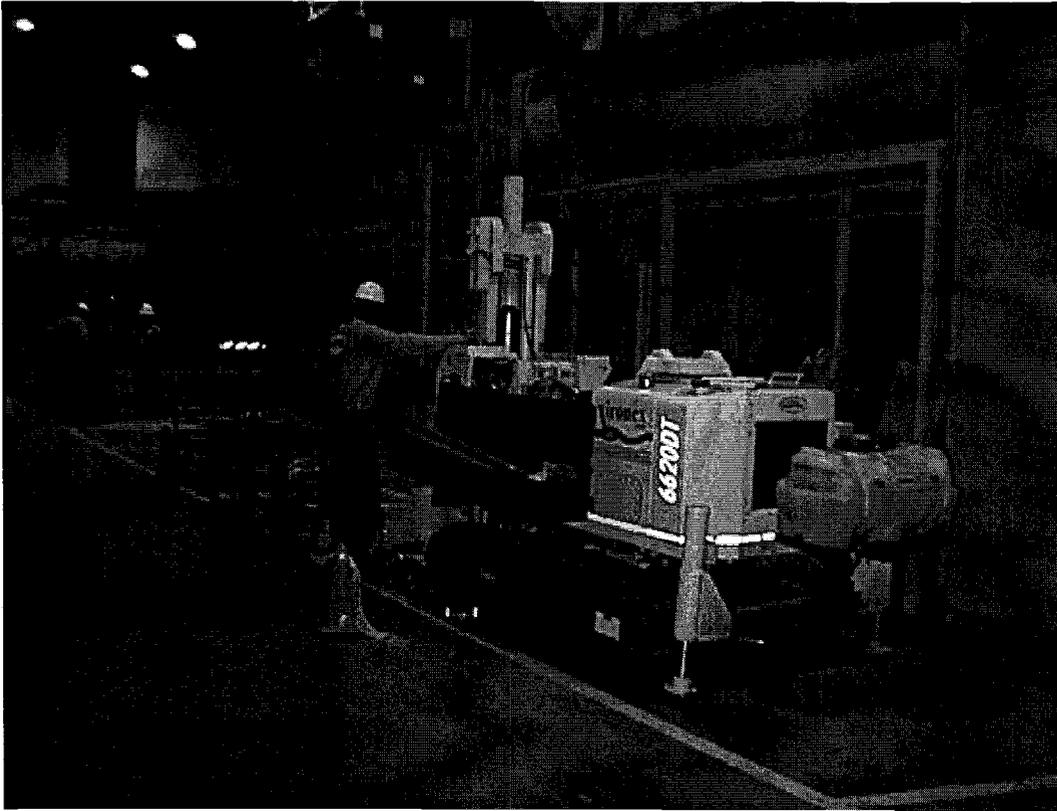
Drought induced heaving of
Soil damaging wells.



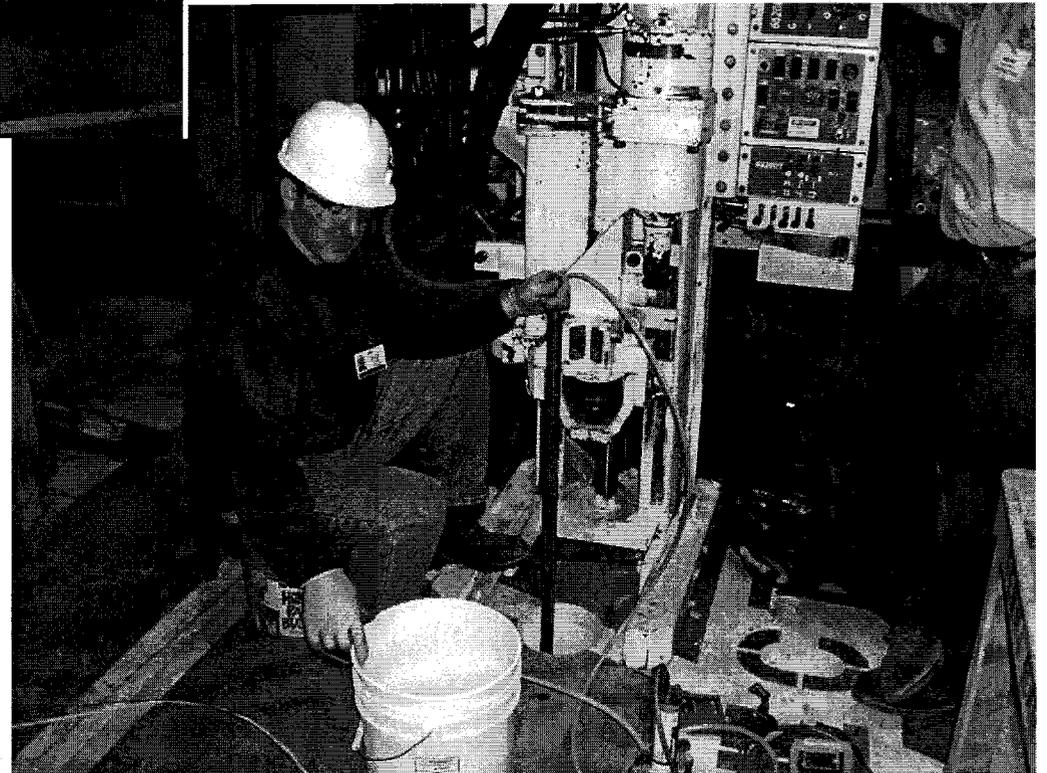
Highlights



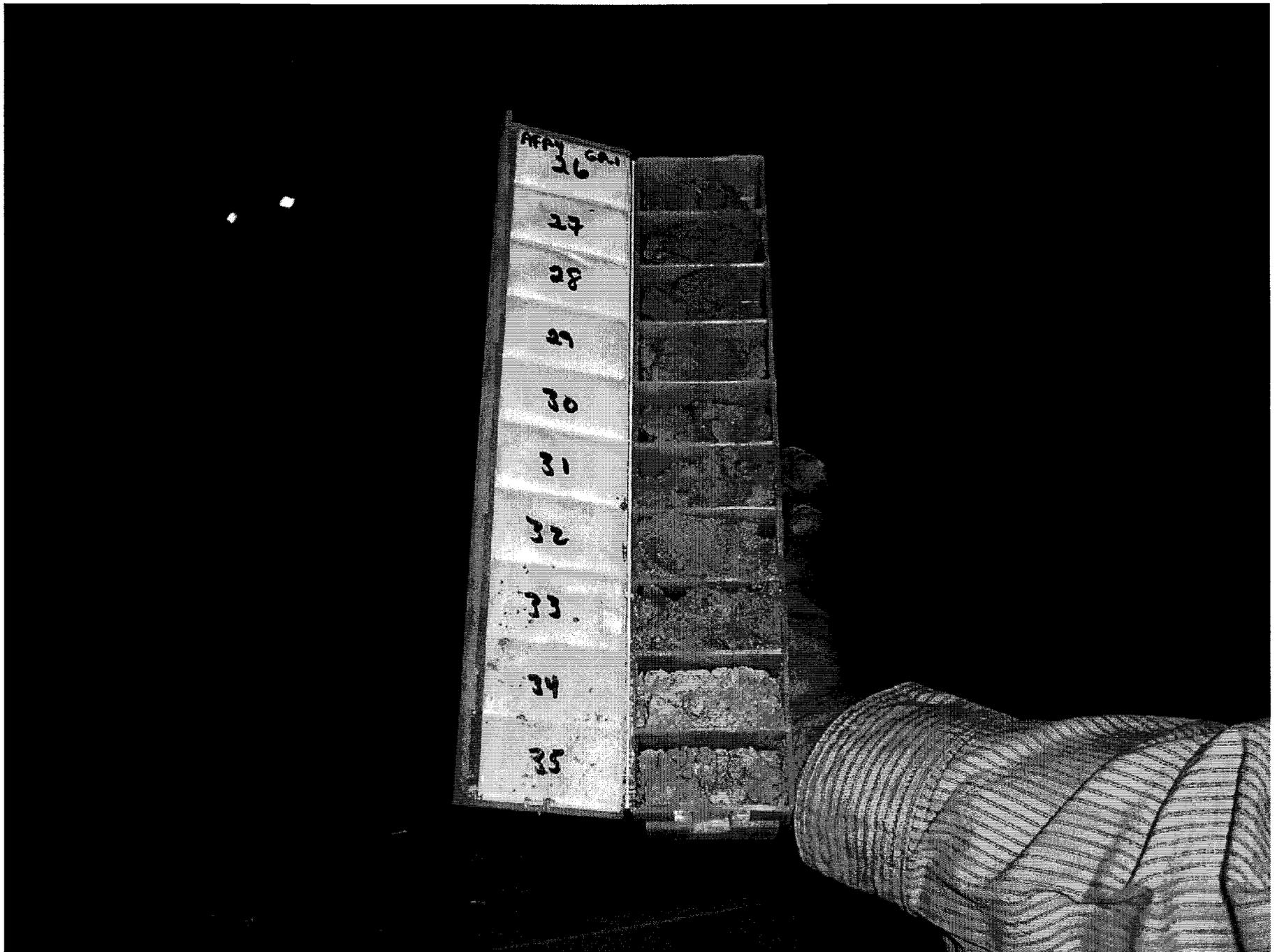
Sampling in Bldg 181 to determine
If any additional treatment is
Necessary before shutting down
Soil Vapor extraction system.



Arizona State University Graduate Students did a study (free!) as part Of a bigger study they are doing on The affects of Heating Remediation.



Examine soil at different depths below surface.



Future Activities

- Submit 2nd Five Year Review
- Additional study of fish and food uptake in Lake Worth (United States Geological Survey – Austin, TX) – August 2007
- October 2007 Long Term Groundwater Monitoring (just finished sampling April 07)
- RAB in Oct/Nov 2007

The USGS samples Lakes all over the country. All Lake Worth
USGS Activities are Air Force funded.





Discussion



FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE