

# ***Air Force Real Property Agency***

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## **Kelly Restoration Advisory Board**

**14 October 2008**



Port Authority of San Antonio  
143 Billy Mitchell Blvd., Bldg. 43, Ste. 6  
San Antonio, TX 78226  
6:30 - 8:30 p.m.

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# ***Welcome and Overview***

- **6:30 – 6:35 Welcome and Overview**
- **6:35 – 6:45 Introduction of AFRPA Public Affairs Specialist  
Mr. Armando Perez**
- **6:45 – 6:55 Port Authority Hurricane Ike Update**
- **6:55 – 7:15 Building 360 Update**
- **7:15 – 7:25 Former Building 301 Update**
- **7:25 – 7:40 EPA Soil Vapor Intrusion Study Follow-Up**
- **7:40 – 8:00 Site MP (Former Metal Plating Shop) Briefing**
- **8:00 – 8:15 Public Comment Period**
- **8:15 – 8:25 RAB Membership Terms**
- **8:25 – 8:30 Suggested Agenda Items for next RAB**
- **8:30 Adjournment**

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# ***Introduction of New Public Affairs Specialist***

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**6:35 – 6:45 p.m.**

- **Introduction of New Public Affairs Specialist, Mr. Armando Perez**

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# ***Hurricane Ike Update***

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**6:45 – 6:55 p.m.**

- **Port Authority Hurricane Ike Update**
- **Questions from RAB**

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## ***Building 360 Update***

**6:55 – 7:15 p.m.**

- **Building 360 Update**
- **Questions from RAB**

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**AFRPA / Kelly  
Building 360 Update  
14 October 2008**



**Paul Carroll  
BRAC Environmental  
Coordinator**

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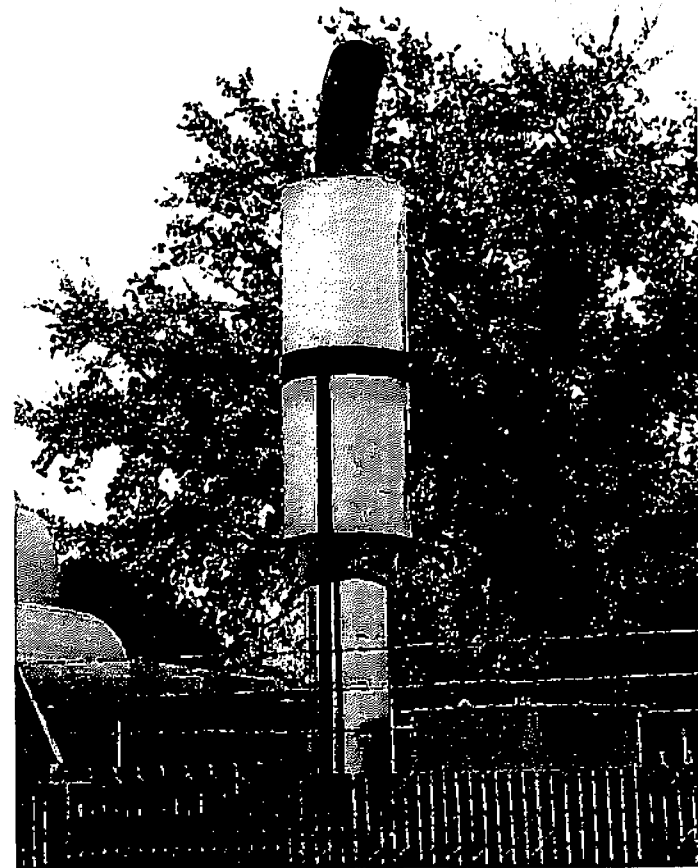


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# ***SVE Noise Reduction***

- Noise abatement has been accomplished with the installation of a large muffler to the soil vapor extraction (SVE) system.
- Noise from SVE operation has been significantly reduced, and results from the noise survey are anticipated to be provided to AFRPA within the next few weeks.
- AFRPA will continue to monitor and evaluate the performance and effectiveness of the noise reduction equipment in order to minimize the impact on the surrounding community.



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# ***SVE Operations***

- **With the noise abatement complete, SVE system operation has been restored.**
- **Since the system has not been in operation until very recently, start up sampling was conducted to determine the effectiveness of the SVE system and to establish a baseline.**
- **The results from the sampling indicate that the SVE system is removing contamination from the soil under Bldg 360 as intended.**
- **Will continue to operate SVE system and make adjustments to meet technical and regulatory goals.**
- **Mass removal rates will be determined and presented at the next RAB meeting.**

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# ***SVI Investigation Status***

- **As part of the Bldg 360 soil vapor intrusion (SVI) investigation, historical operations and chemical usage were reviewed.**
- **During this preliminary investigation it was discovered that chlorinated solvents were currently being used in small amounts by one of the tenants as part of their process.**
- **Due to industrial usage we have determined that it is unlikely that indoor air sampling could be used to clearly demonstrate whether or not the underlying area of contamination is larger than what is currently known.**
- **It has been determined that subslab sampling would be the only effective way to identify with certainty any additional unknown soil contamination underlying Bldg 360.**
- **AFRPA contractor (HGL) is currently developing an approach to implement subslab sampling throughout Bldg 360.**

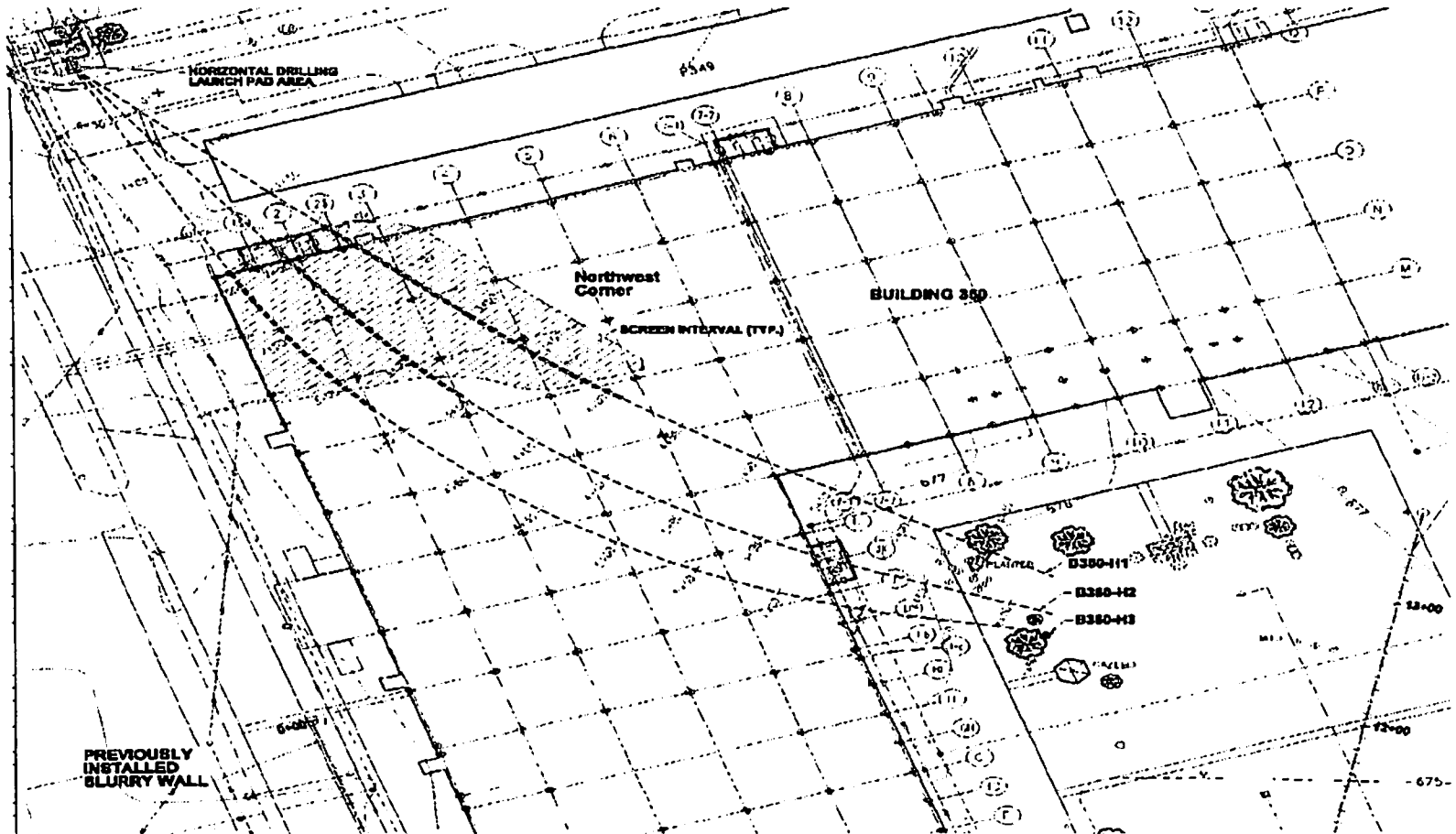
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# Extent of Known Source

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# ***Questions***

- **Questions from RAB**

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# ***Former Building 301 Update***

**7:15 – 7:25 p.m.**

- **Former Building 301 Update**
- **Questions from RAB**

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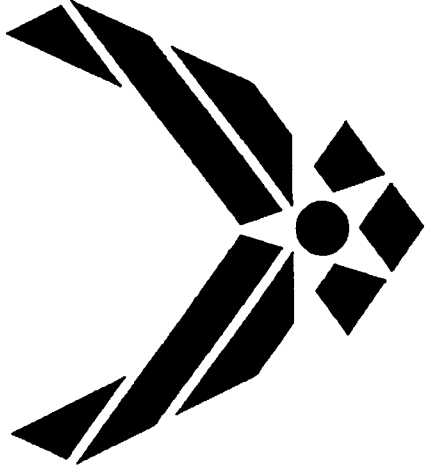
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**AFRPA / Kelly  
Former Building 301 ERH Site  
14 October 2008**



**Paul Carroll  
BRAC Environmental  
Coordinator**

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# ***ERH Operations***

- **Electrical-Resistive Heating (ERH) system was brought online in July 2008.**
- **The system requires moist soil conditions throughout the electrode field to allow for uniform heating of the subsurface and efficient operation of the ERH system.**
- **In August it was identified that additional moisture was needed in approximately 60 wells.**
- **As an enhancement to the system, drip lines were installed so that water could be injected into the dry electrode wells in order to maintain optimum moisture conditions.**

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# ***ERH Subsurface Temperatures***

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- **Average subsurface temperatures at start up were 27.1° C (80.8° F).**
- **Average subsurface temperatures as of September 30, 2008 have risen to 62.5° C (144.4° F).**
- **This equates to a temperature increase of approximately 35.4° C (63.6° F) over the first two months of operation.**
- **Current projections indicate the system will reach the design temperature of approximately 92.0°C (197.6°F) in late October 2008 or early November 2008.**



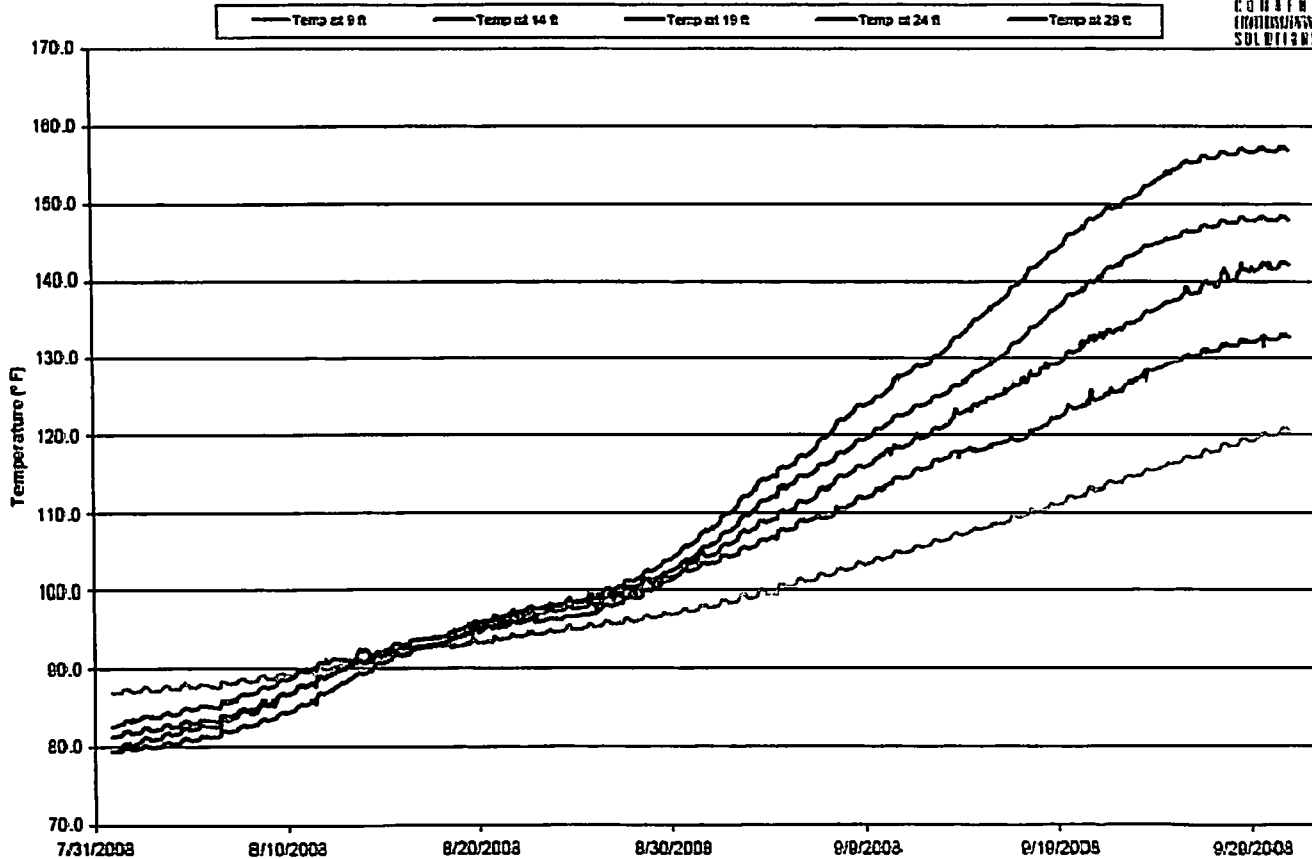
# ERH Subsurface Temperatures

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CAPE

Figure 1  
CMI Building 301  
Area A & Area B Temperature

CES  
CURRENT ENVIRONMENTAL SOLUTIONS



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# ***ERH Contaminant Removal***

- **Contaminants PCE and daughter products (TCE, cis-1,2-DCE, and vinyl chloride) have been detected in varying concentrations in samples collected during the first seven weeks of O&M.**
- **Other VOCs in addition to PCE and daughter products have been detected and are being removed by the granular activated carbon (GAC) canisters.**
- **Calculations based on volume of air and PID measurement of VOCs extracted indicate that approximately 420 lbs of VOCs have been removed as of 07 October 2008.**
- **Due to the volume of contaminant removal, it was determined that the GAC canisters were saturated and change out occurred on October 9, 2008.**

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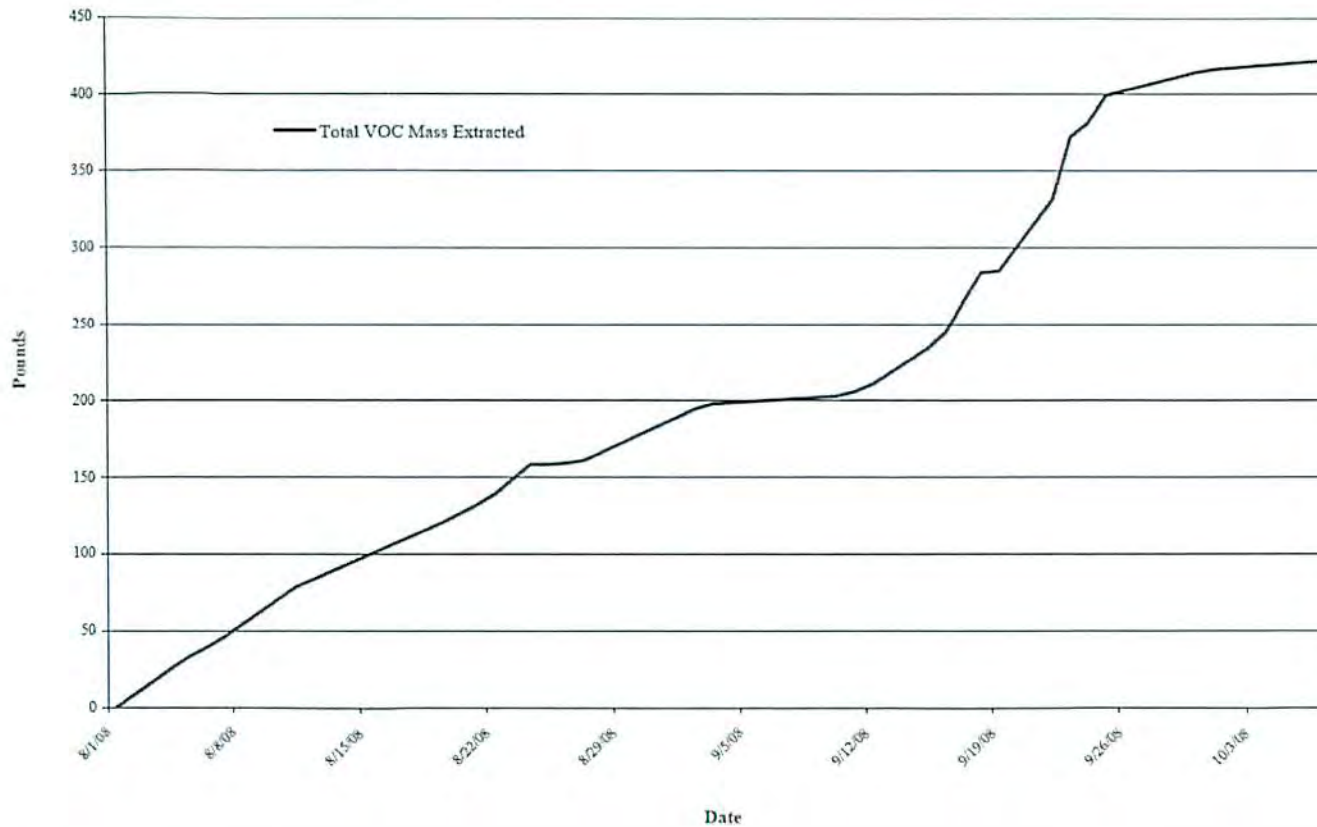


# ERH Contaminant Removal

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Figure 3:  
CMI Building 301  
Total VOC Mass Extracted



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# **Questions**

- **Questions from RAB**

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# ***EPA Soil Vapor Intrusion Study Follow-Up***

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**7:25 – 7:40 p.m.**

- **EPA Soil Vapor Intrusion Study  
Follow-Up**
- **Questions from RAB**

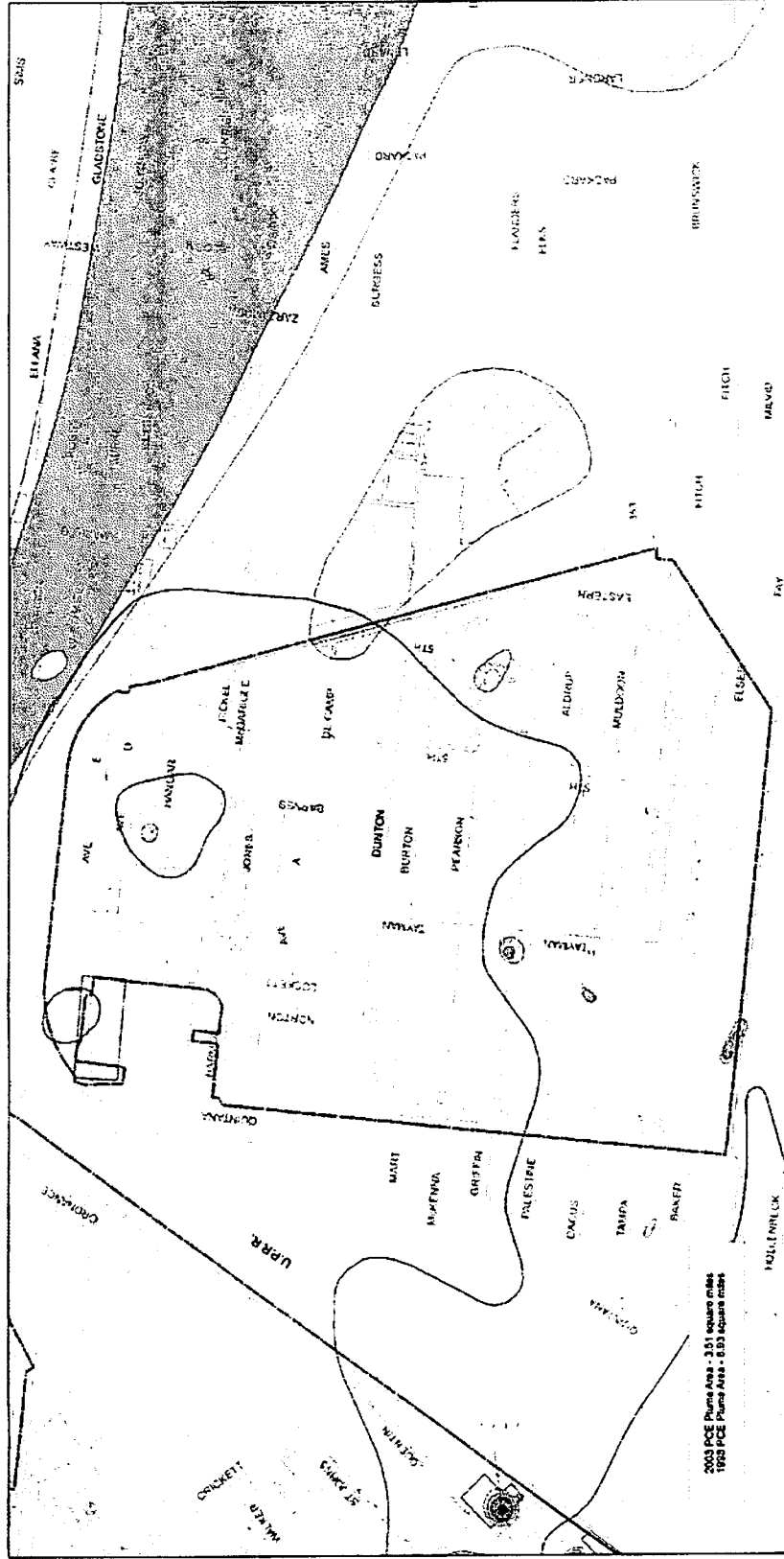
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# PCE 2008 Plume Reduction East Kelly Magnified

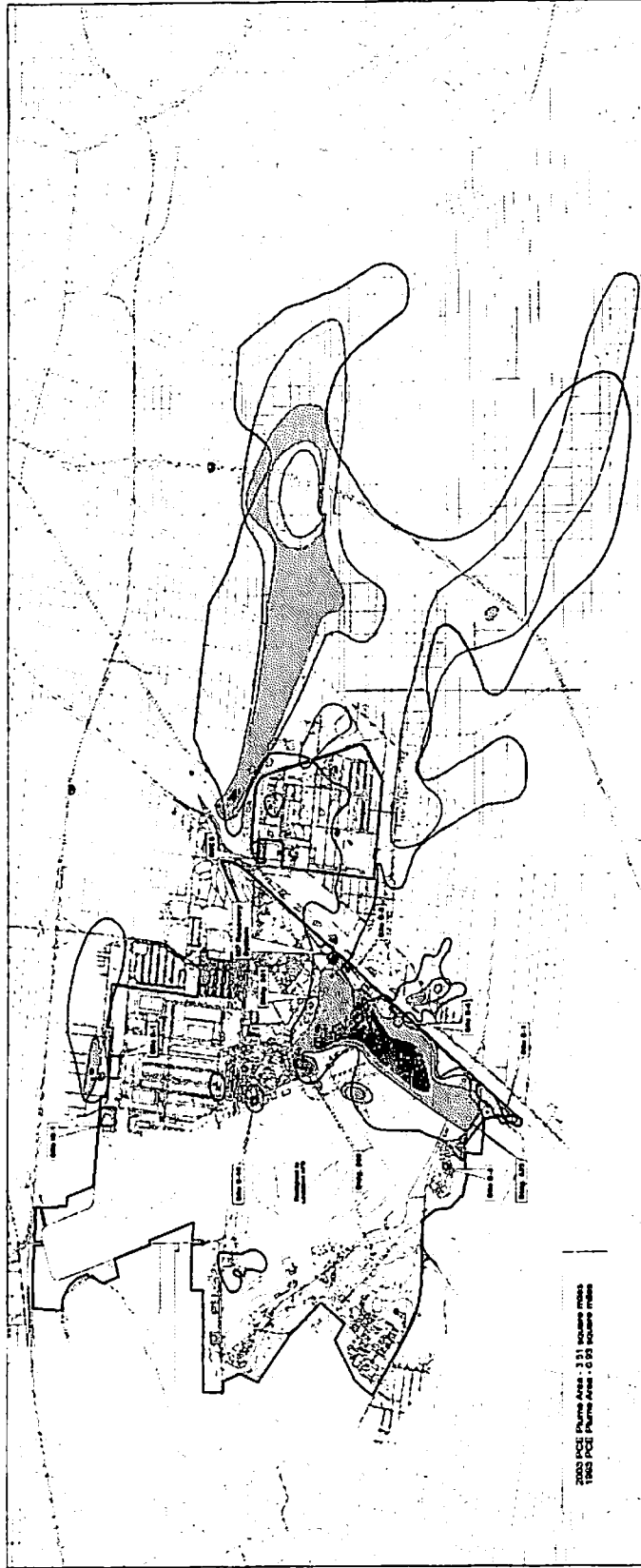


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# PCE 2008 Plume Reduction

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Date: 07 April 2008

## 2008 PCE Basewide Compliance Plan (2007 Sample Well Data)

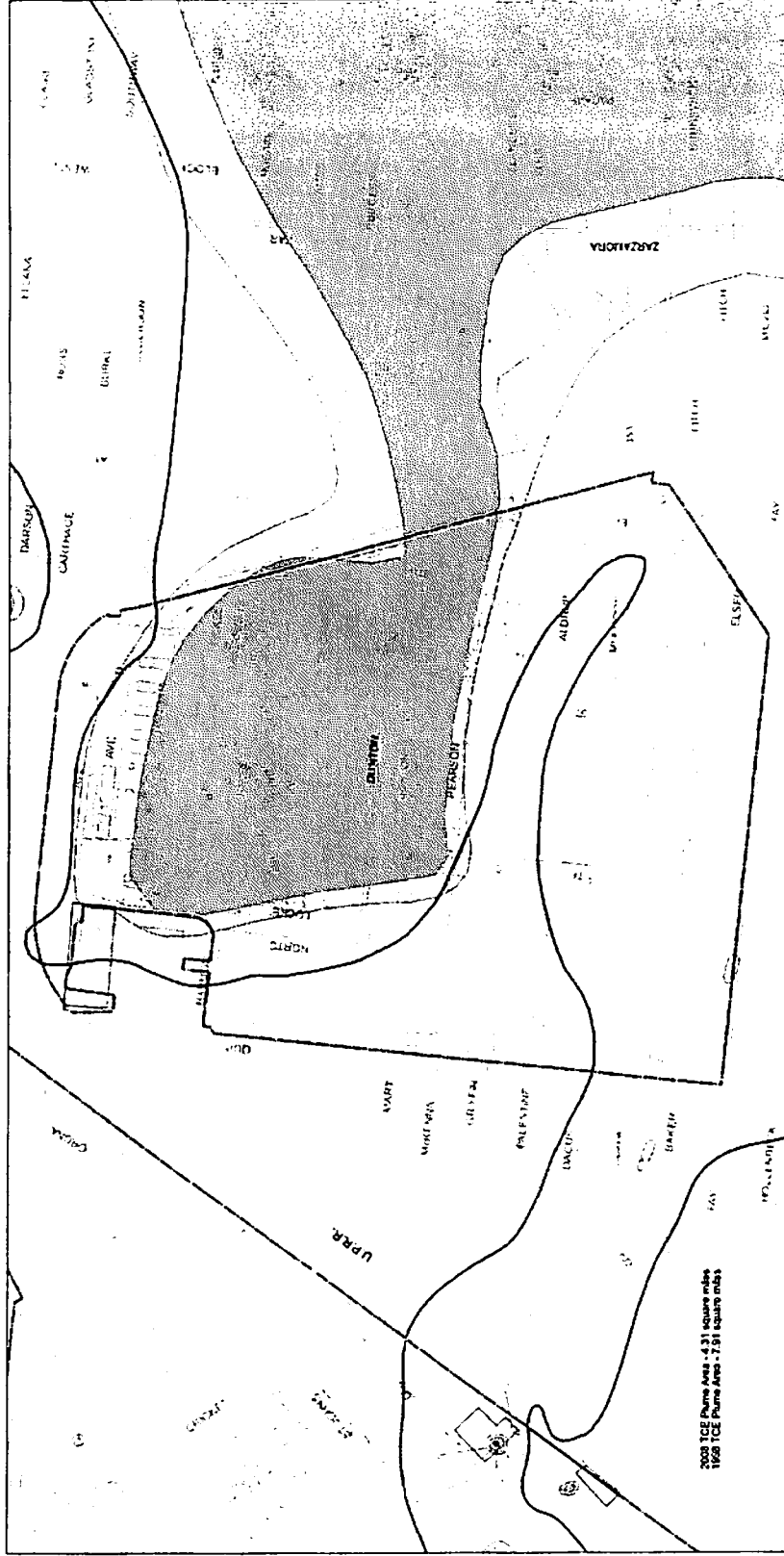
Source: Environmental Compliance Plan Report, December 2007, HCL

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# TCE 2008 Plume Reduction East Kelly Magnified



Legend:  
 1. 1000 TCE Plume (dashed line)  
 2. 100 TCE Plume (solid line)  
 3. 10 TCE Plume (dotted line)  
 4. 1000 TCE Plume Area (shaded area)  
 5. 100 TCE Plume Area (hatched area)  
 6. 10 TCE Plume Area (stippled area)

Scale: 0 200 400 600 800 1000 Feet

North Arrow

Source: Environmental Compliance Plan Report, December 2007, ICL  
 Date: 07 April 2008

East Kelly 2008 TCE Basewide Compliance Plan  
 (2007 Sample Well Data)

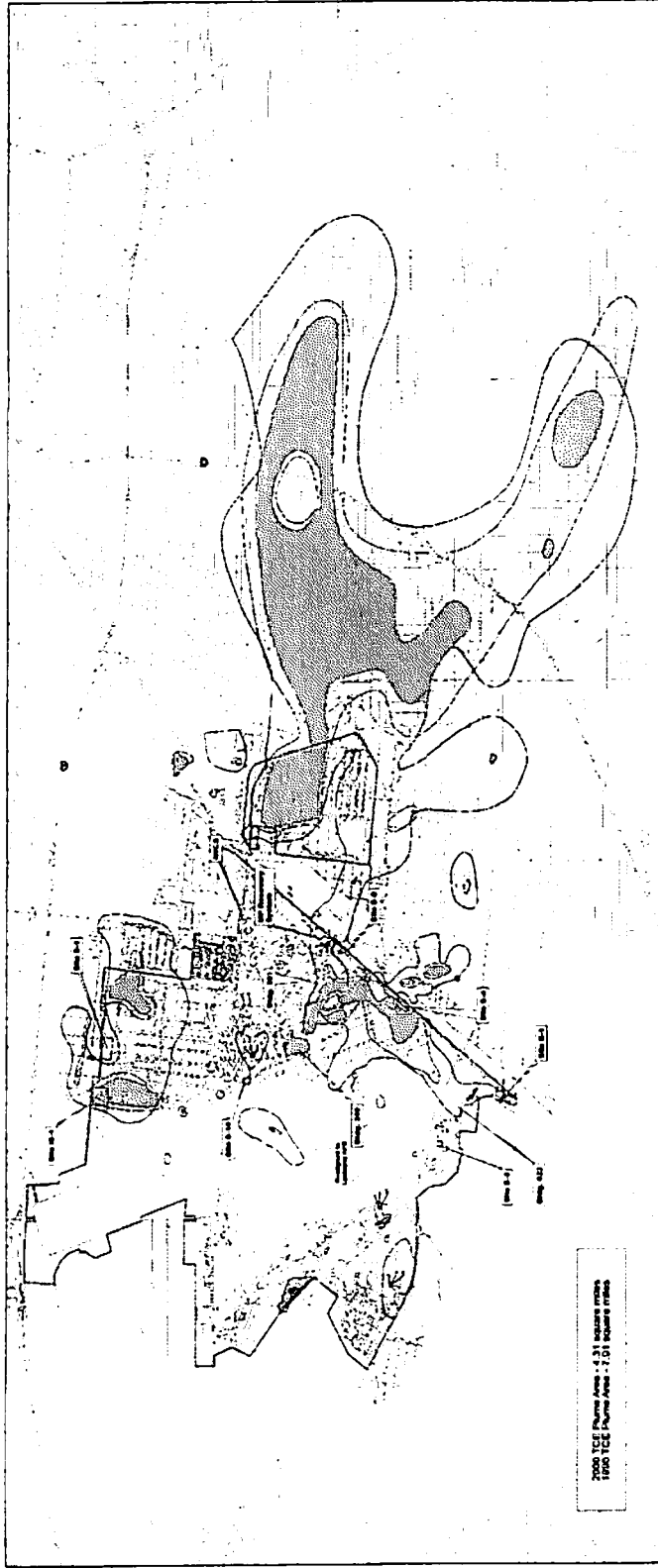
Source: Environmental Compliance Plan Report, December 2007, ICL

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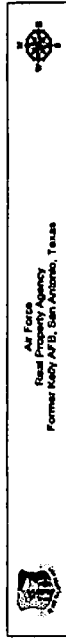
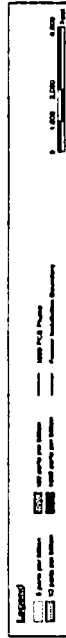
# TCE 2008 Plume Reduction

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Date: 07 April 2008

C:\Users\jgoff\Documents\GIS\2008-04-07\2008-04-07-TCE\2008-plume\_TCE.mxd



## 2008 TCE Basewide Compliance Plan (2007 Sample Well Data)

Source: Biennial Compliance Plan Report, December 2007, HCL

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# **Questions**

- **Questions from RAB**

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**Site MP**  
**(Former Metal Plating Shop)**

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**7:40 – 8:00 p.m.**

- **Site MP (Former Metal Plating Shop) Briefing**
- **Questions from RAB**

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# Restoration Advisory Board Presentation for Remediation of Source Contamination at the Former Metal Plating Facility (IRP Site SS040) Former Kelly AFB, Texas

October 14, 2008



TETRA TECH

 EarthTech

PREMIER *Hydro*

 **HGU**  
HydroGeologic, Inc.

# Agenda

- **Introduction**
- **Site History**
- **Overview of Scope of Work**
  - Preparation of Project Quality Program Plan
  - Geophysical Survey
  - Additional Site Investigation Activities
  - Utility Abandonment
  - Construction of Site Laydown Area
  - Soil Excavation Activities
  - Site Restoration Activities
  - Groundwater Monitoring
  - Reporting
  - Schedule of Field Activities

## **Introduction**

### **▪ Tetra Tech Project Team**

- Project Manager - Bill Norton
- Contracts - Keith Bradley
- Technical Leads - Brian Howard and Larry Tyner

### **▪ Air Force Personnel**

- Mark Davis, AFCEE COR
- Paul Carroll, AFRPA (BRAC Environmental Coordinator for Former Kelly AFB)
- Luis Medina, AFRPA Environmental Project Manager

## Site History

- *Site MP (IRP Site SS040) was originally the location of two automotive maintenance shop buildings known as Buildings 258 and 259.*
- *Both buildings were subsequently modified to support metal plating operations, and were then demolished in 1981.*
- *Site MP was originally designated Site OT-2 when the site was categorized as an Installation Restoration Program site, it is currently IRP Site SS040.*
- *Site MP is located in the northeast corner of the 300 Area, Waste Management Area (WMA), and is currently an asphalt parking lot for Building 171.*
- *It was determined in 1998 that a pool of DNAPL (dense non-aqueous phase liquid) believed to have originated from Site MP was contributing to groundwater contamination.*
- *In response, the Air Force installed an interim remedy in 1999 consisting of four groundwater recovery wells and a slurry wall. The objectives of the system was to prevent off-site contaminant plume migration and extract contaminated groundwater for treatment at the Zone 2 Groundwater Treatment Plant.*
- *Excavation of the soil to remove the DNAPL was proposed as the final remedy in the Class 3 Modification to the Compliance Plan for Zones 2 and 3.*

# Figure 1 – Former Kelly AFB

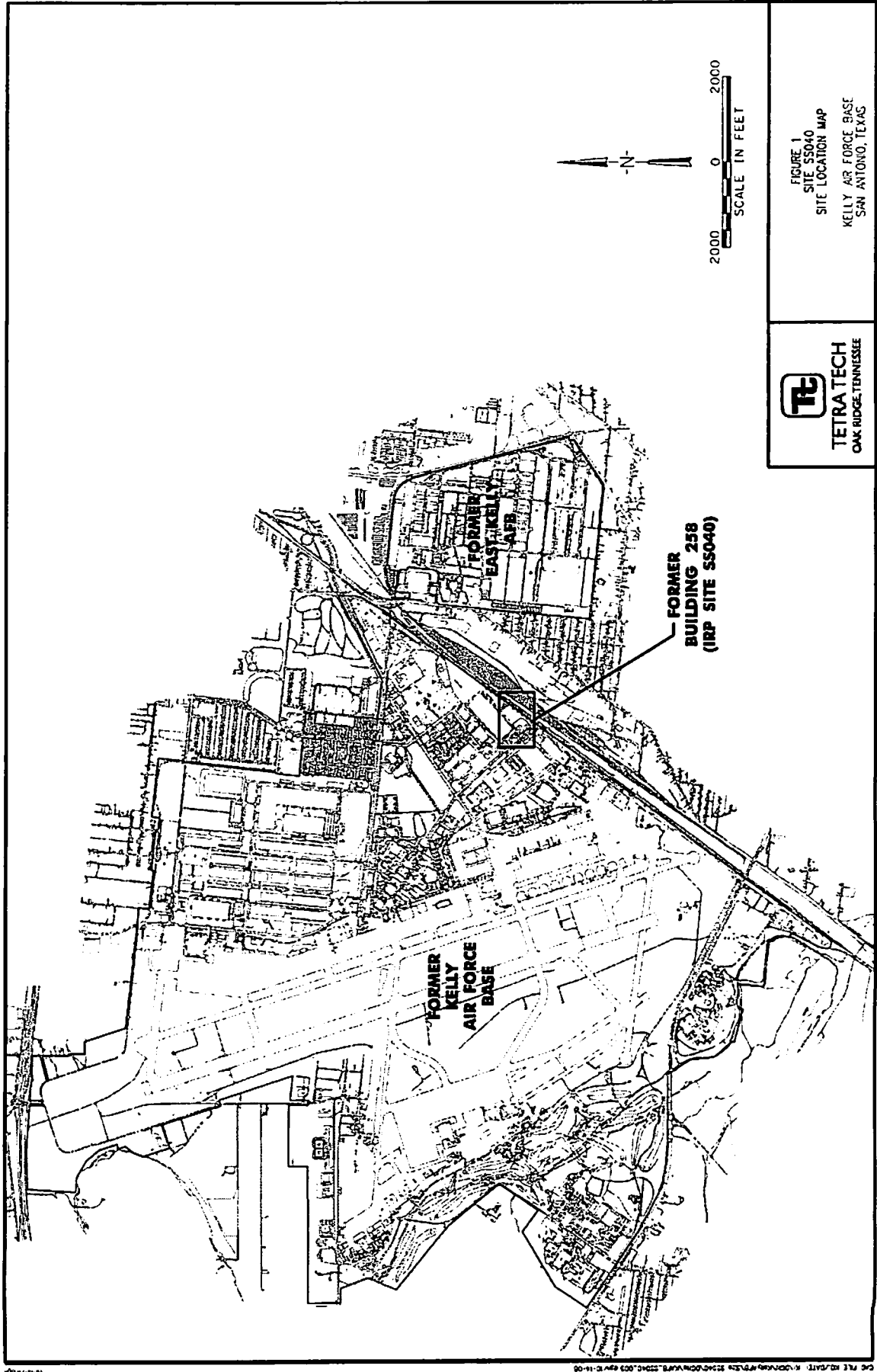
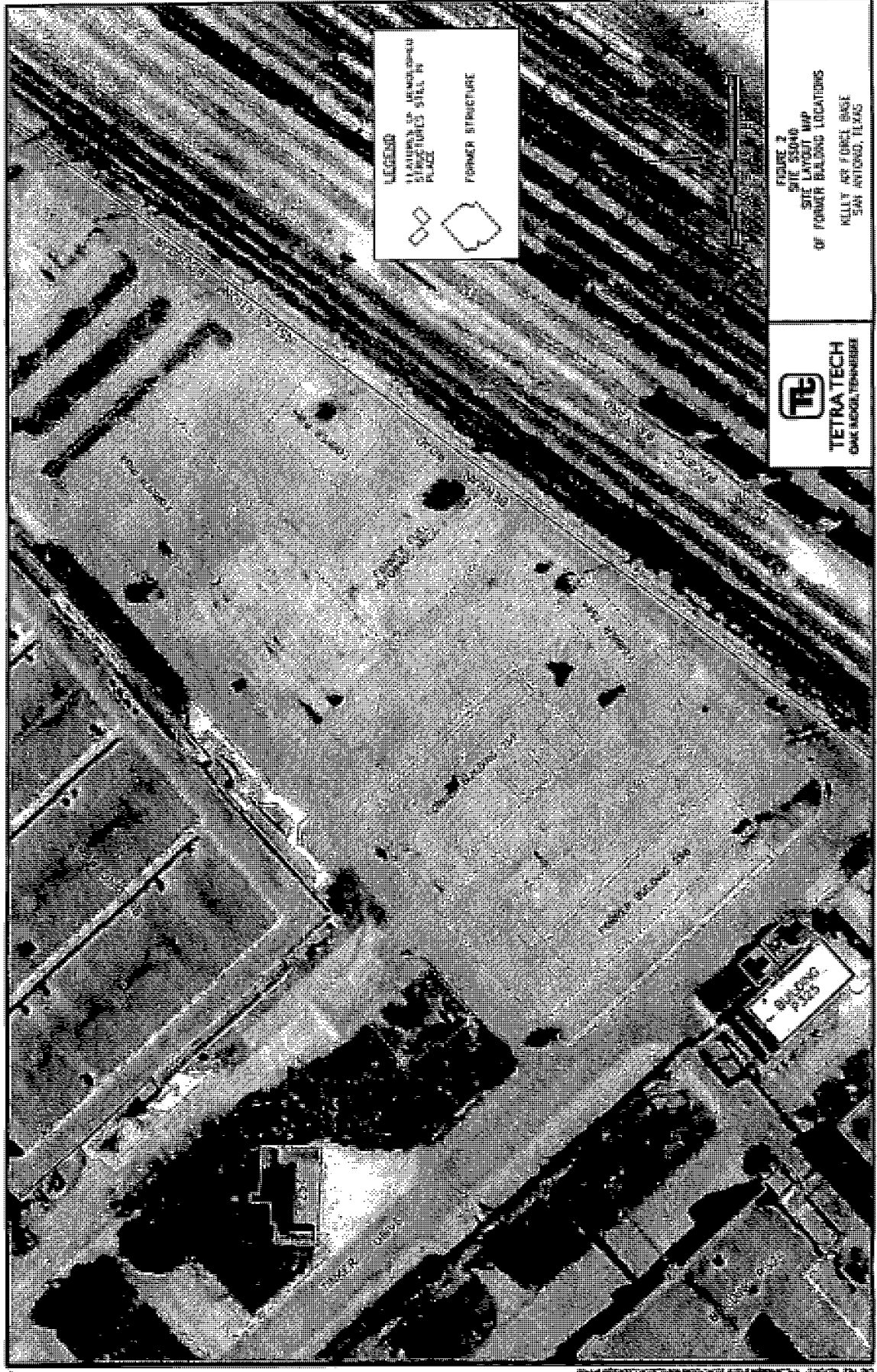


FIGURE 1  
 SITE SS040  
 SITE LOCATION MAP  
 KELLY AIR FORCE BASE  
 SAN ANTONIO, TEXAS

**TE**  
 TETRA TECH  
 OAK RIDGE, TENNESSEE

NO. 11-12-00 AIR FORCE 161-1000 (REV. 001) 8-00 11-12-00

**Figure 2 – IRP SSO40 Site Map**





# Scope of Work

(Remediation of Source Contamination at IRP Site SS040)

## Preparation of Project Quality Program Plan

- Consists of preparing a:
  - Remediation Work Plan,
  - Quality Assurance Project Plan Addendum, and
  - Site Specific Health and Safety Plan.

# Scope of Work

(Remediation of Source Contamination at IRP Site SS040)

## Geophysical Survey

- Conduct geophysical survey of the project site
  - Confirm the boundaries of the existing slurry wall.
  - Locate the footprint of any remaining foundations of demolished structures.
  - Verify utility corridor.
  - Identify any subsurface anomalies which may affect excavation activities.

# Scope of Work

(Remediation of Source Contamination at IRP Site SS040)

## Additional Site Investigation Activities

- Installation of approximately 30 additional soil borings set on a 29 ft x 29 ft grid within the slurry wall area.
- Collect soil samples at 5 ft intervals beginning at 3 to 5 ft below the ground surface to approximately 45 to 50 ft below the ground surface.

# Scope of Work

(Remediation of Source Contamination at IRP Site SS040)

## Why are we doing additional soil sampling?

- This will better define the actual excavation area.
- Allow for pre-classification of soils prior to excavation (non hazardous or hazardous).
- Allow for direct loading of excavated soils into trucks for transportation and disposal.

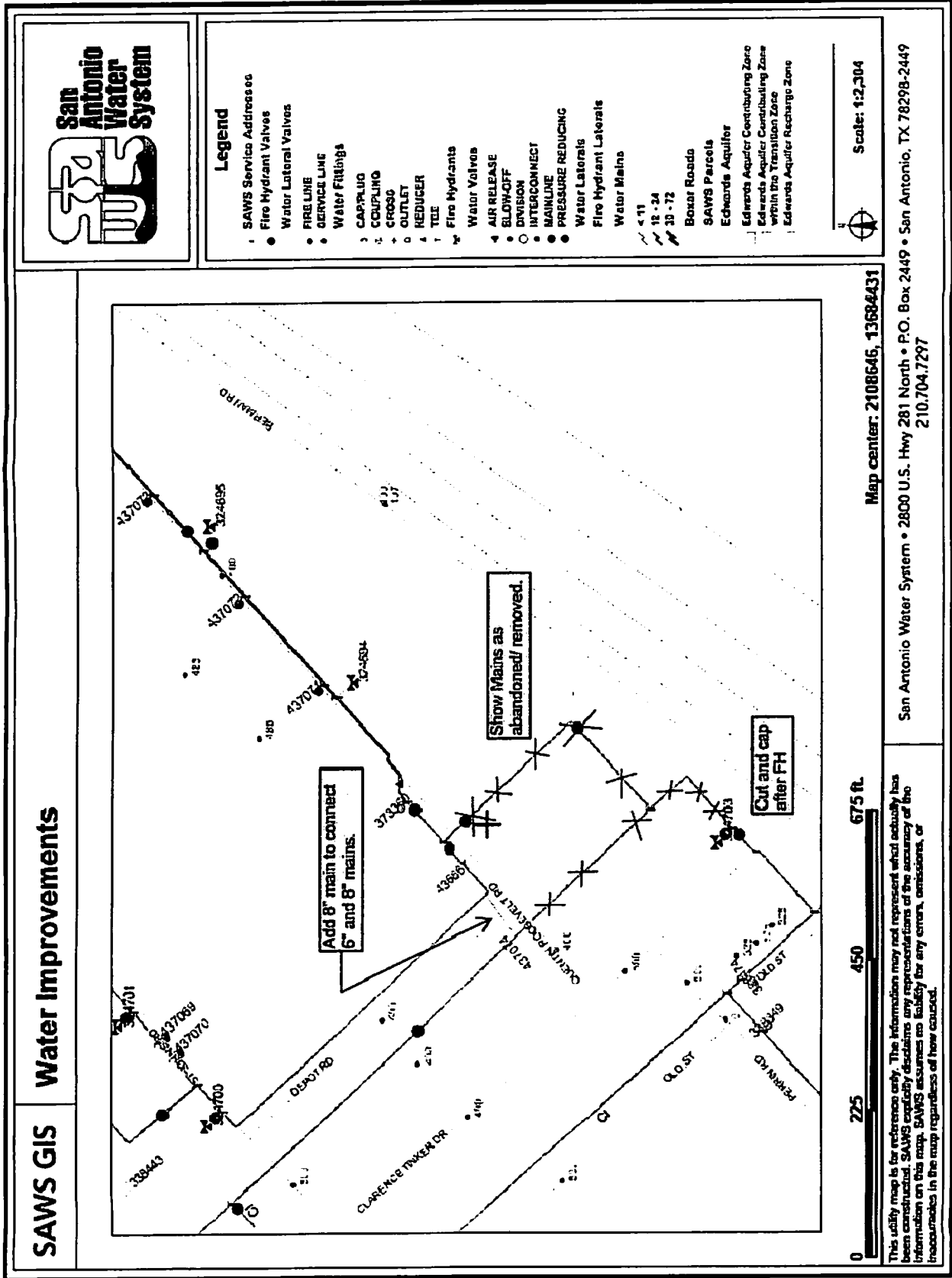
# Scope of Work

(Remediation of Source Contamination at IRP Site SS040 - continued)

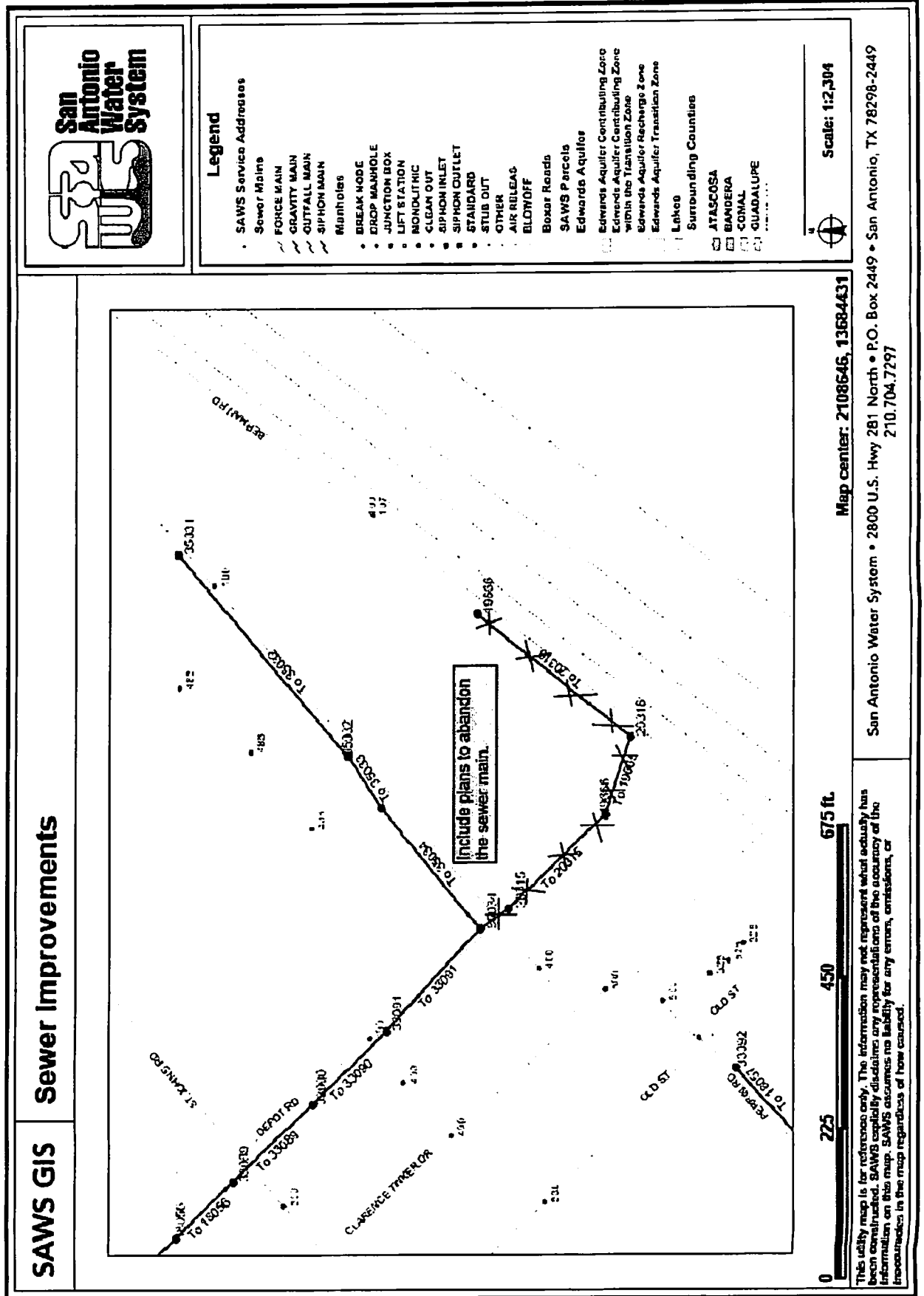
## Utility Abandonment

- Currently there are 3 existing utility conduits that traverse through the site which will require abandonment
  1. Potable Water (Figure 3)
  2. Sanitary Sewer (Figure 4)
  3. Electrical (Figure 5)
- Abandonment will be conducted in strict compliance of SAWS guidelines.
- Potable water line will be cut off just past building 171 and capped in place.
- Sanitary sewer lines will be abandoned by removing 4 existing manhole covers per the SAWS guidelines, puncturing the bottom of each manhole to ensure drainage and backfilled.
- Electrical line consists of an old inactive electrical vault which will be removed during excavation efforts.
- The replacement of any of these utilities is not required.

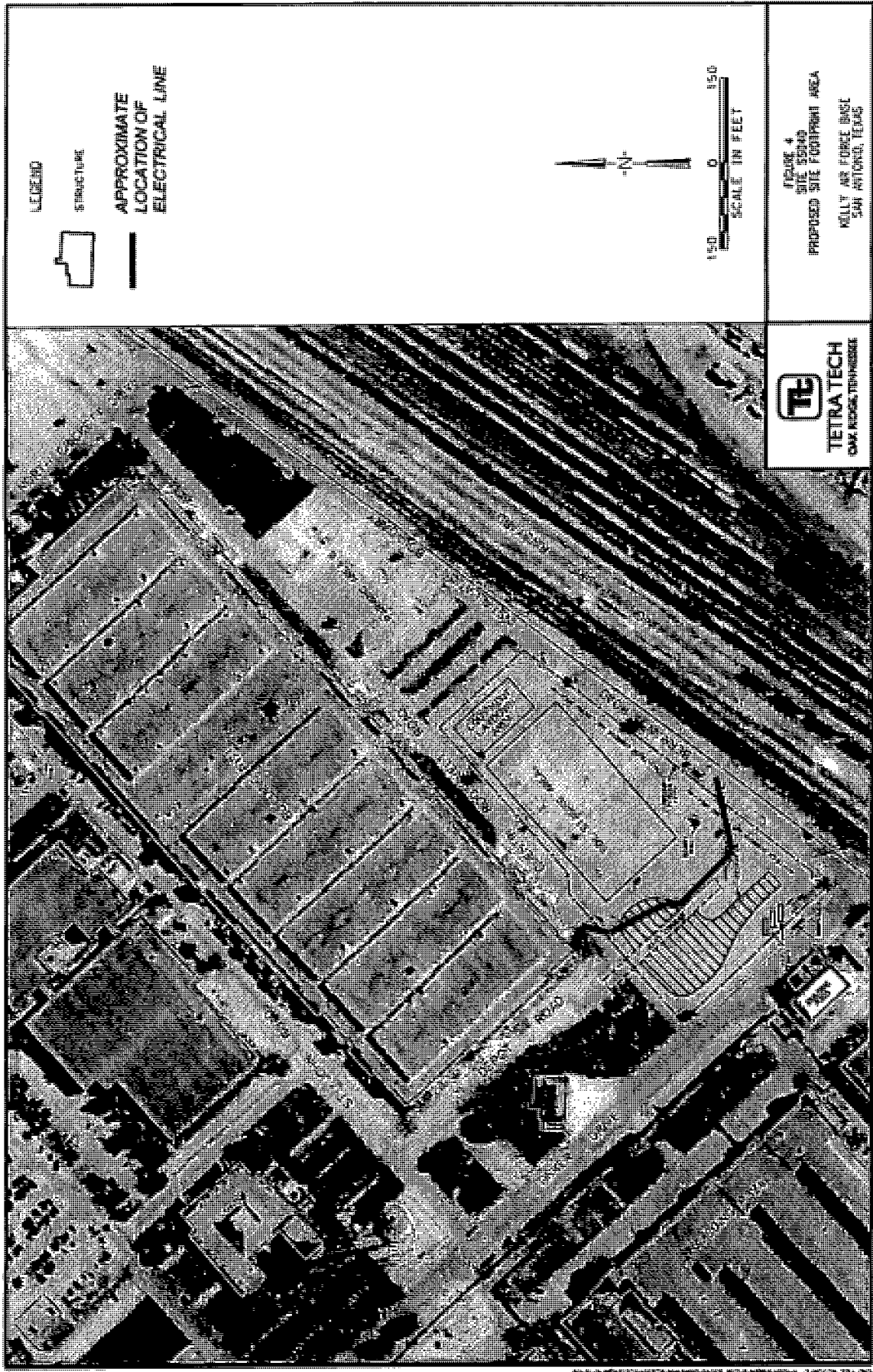
# Figure 3 – Potable Water



# Figure 4 – Sanitary Sewer



**Figure 5 – Electrical**





# Scope of Work

(Remediation of Source Contamination at IRP Site SS040 - continued)

## Construction of Site Laydown Area

- Proposed work area will be located south of existing Building 171 (Figure 6).
- Install portable chain link fence panels around entire site for safety and security.
- Establish temporary soil staging area.
- Establish equipment lay down areas and support facilities.

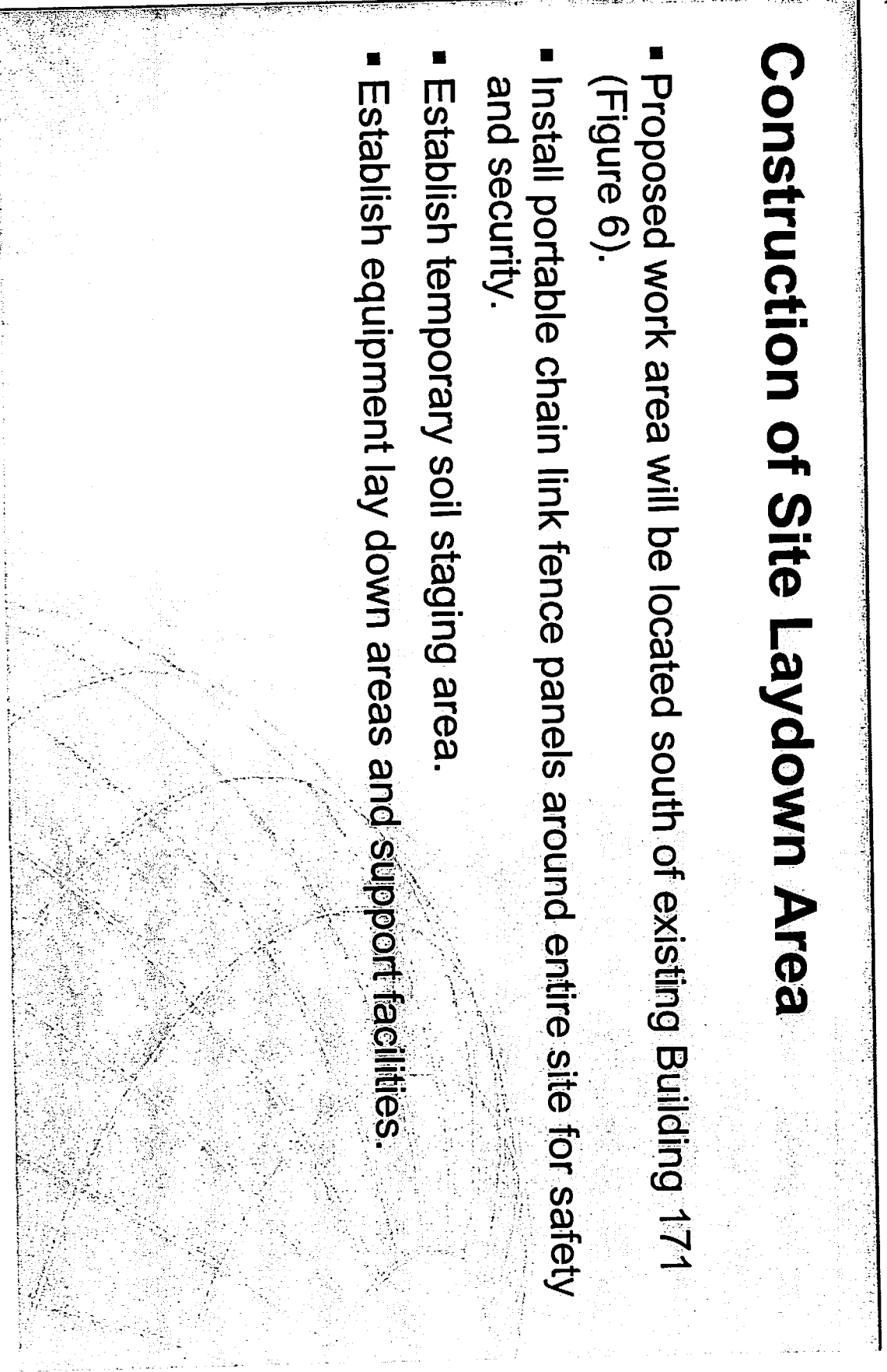
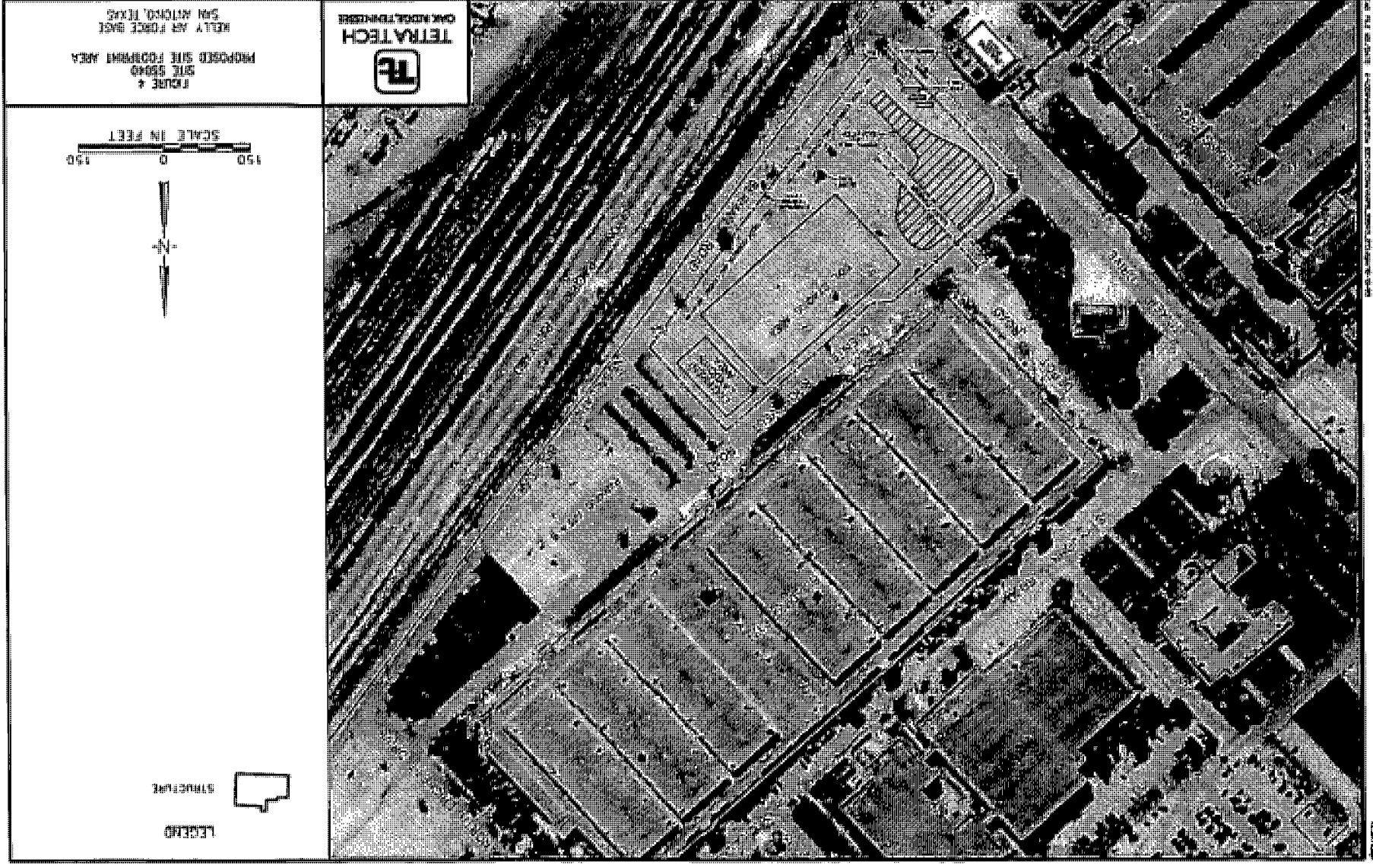


Figure 6 – Site Laydown Area



# Scope of Work

(Remediation of Source Contamination at IRP Site SS040 - continued)

## Soil Excavation Activities

- **Removal of Asphalt Cover** – Remove 300' x 300 ft of asphalt. Material will be sent to recycling facility.
- **Installation of Sheet Piling** - Sheet piling will be installed along the north to north central face and along the north westward face of the existing slurry wall (Figure 6).
- **Soil Excavation**
  - Removal of clean over burden soils (will be stockpiled on site to be used as backfill).
  - Excavate contaminated soils, soils will be segregated to ensure there is no mixing of hazardous and nonhazardous or clean soils.
  - Transportation of soils to appropriate disposal facilities (Figure 7).
  - Perform dewatering efforts (groundwater will be pumped to the OU 3 treatment plant for treatment and disposal).



# Scope of Work

(Remediation of Source Contamination at IRP Site SS040 - continued)

## Soil Excavation Activities Cont.

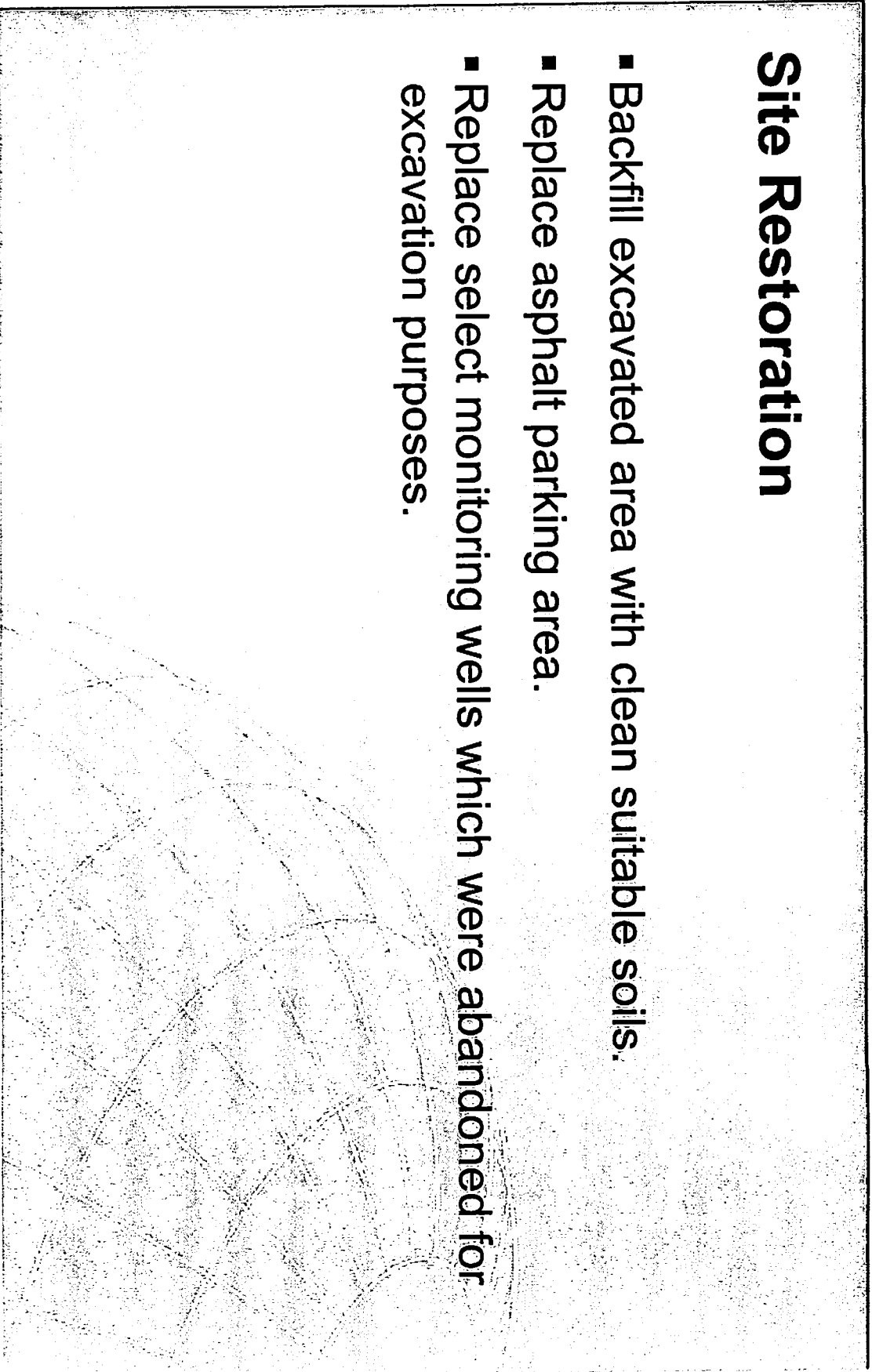
- Placement of carbon source within pit floor.
  - Will provide a carbon source for continued destruction of residual contaminants within the groundwater following excavation.
  - Consist of a mixture gravel, mulch and vegetable oil.

# Scope of Work

(Remediation of Source Contamination at IRP Site SS040 - continued)

## Site Restoration

- Backfill excavated area with clean suitable soils.
- Replace asphalt parking area.
- Replace select monitoring wells which were abandoned for excavation purposes.



# Scope of Work

(Remediation of Source Contamination at IRP Site SS040 - continued)

## Groundwater Monitoring

- Perform groundwater sampling/analysis on 10 groundwater monitoring wells
  - Conduct baseline sampling prior to conducting excavation (prior to excavation activities)
  - Conduct annual sampling for up to 3 years following completion of soil excavation activities

# Scope of Work

(Remediation of Source Contamination at IRP Site SS040 - continued)

## Reporting

- **Corrective Measures Completion Report**
  - Will provide a summary of data collected to date and a comparison to proposed cleanup guidelines and objectives
  
- **Site Closure Report**
  - Prepared to demonstrate the effectiveness of the removal activities and demonstrate attainment of remedial action objectives.



## Schedule

### Schedule of Field Activities

- Geophysical Survey (November 2008)
- Site Characterization/Drilling (December 2008)
- Utility Abandonment (December 2008)
- Soil Excavation (January 2009 – July 2009)
- Parking Lot Restoration (August 2009)



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# ***Questions***

- **Questions from RAB**

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# ***Public Comment Period***

**8:00 – 8:15 p.m.**

**▪ Public Comment Period**

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# ***RAB Membership Renewal***

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**8:15 – 8:25 p.m.**

**- RAB Membership Renewal**

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# ***Air Force Real Property Agency***

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## **Kelly Restoration Advisory Board Membership Renewal**



**Laura Guerrero-Redman  
Contractor, AFRPA/CIO  
14 October 2008**

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# Membership Renewals

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<b>RAB Member</b>	<b>Membership Renewal</b>
<b>Beverly Abbott, Community Co-Chair</b>	<b>31 December 2008</b>
<b>James Betus, Community Member</b>	<b>31 December 2008</b>
<b>Rodrigo Garcia, Jr., Community Member</b>	<b>31 December 2008</b>
<b>Sylvia Ovalle, Community Member</b>	<b>31 December 2008</b>
<b>Paul Person, Community Member</b>	<b>31 December 2008</b>
<b>Brian Skrobarcek, Community Member</b>	<b>31 December 2008</b>
<b>Nazarite Perez, Community Member</b>	<b>31 December 2009</b>
<b>Daniel Gonzales, Community Member</b>	<b>31 December 2010</b>
<b>Rafael Aviles, Port Authority</b>	<b>N/A</b>
<b>Paul Carroll, BEC &amp; Installation Co-Chair</b>	<b>N/A</b>
<b>Tommy Camden, SAMHD</b>	<b>N/A</b>
<b>Kyle Cunningham, SAMHD Alternate</b>	<b>N/A</b>
<b>Gary Miller, EPA</b>	<b>N/A</b>
<b>Greg Lyssy, EPA Alternate</b>	<b>N/A</b>
<b>Mark Weegar, TCEQ</b>	<b>N/A</b>
<b>Jorge Salazar, TCEQ Alternate</b>	<b>N/A</b>

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# ***Membership Renewal Procedure***

- **6 of the 8 RAB memberships expire end of 2008**
- **Nomination forms are only for new RAB candidates who meet the requirements according to RAB Final Rule 202.4:**
  - Community RAB members should live and/or work in the affected community or be affected by the installation's environmental restoration program.
  - Affected community area is within the city limits of San Antonio, Texas, bounded by: Commerce Street to the north, the San Antonio River to the east, Interstate Highway 410 to the south, and Pearsall Road, Lackland Air Force Base and South Acme Road to the west.

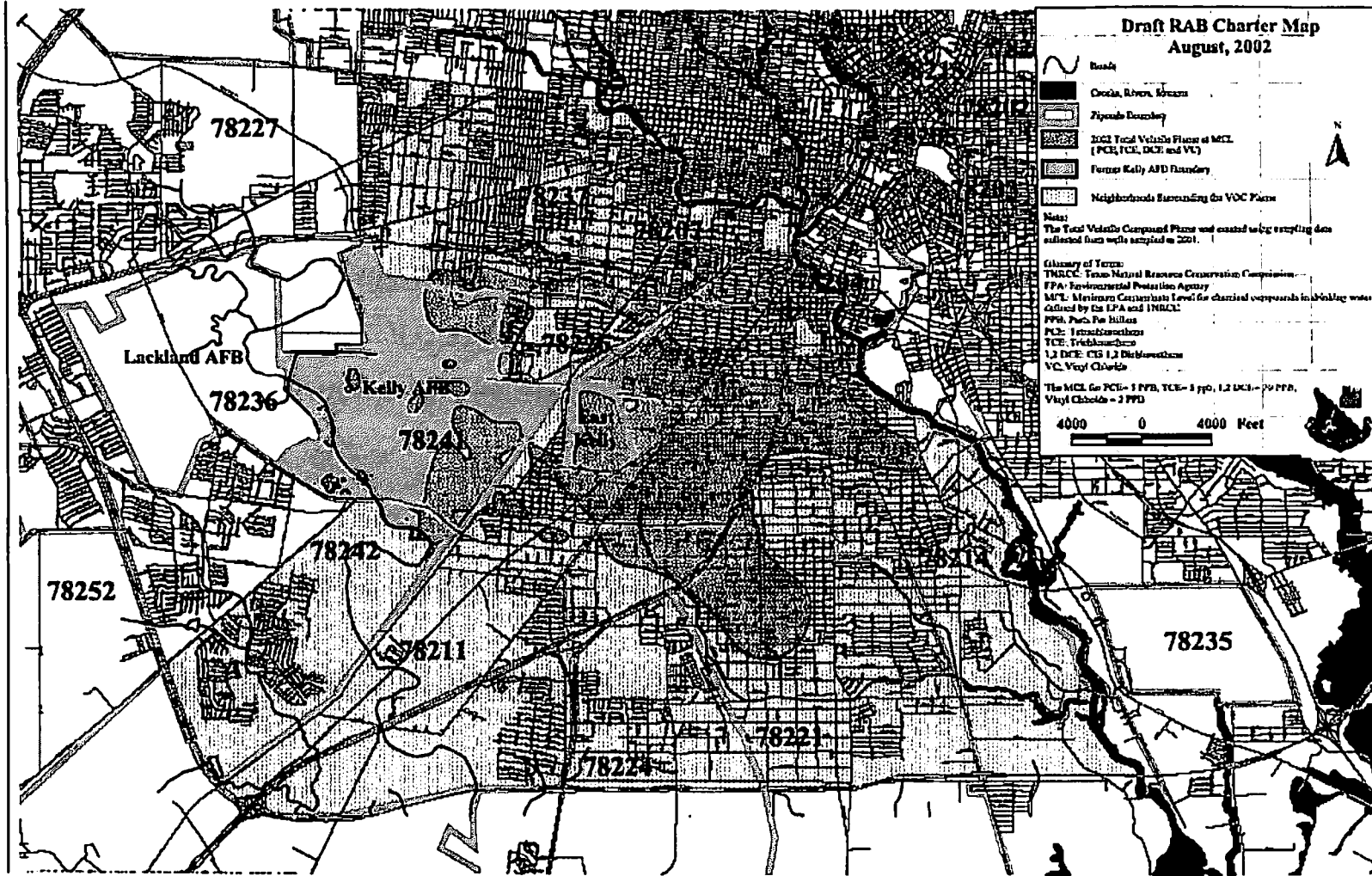
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# RAB Final Rule 202.4 Composition of RAB







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# ***Membership Renewal Procedure***

## ■ **2009 RAB Panel timeline as follows:**

- Current RAB members simply renew their 2 year term in writing by end of October (*letter and new RAB member Applications will be mailed to you*).
- If all return, 8 additional Community Member Chairs remain vacant.
- If new RAB nominations and applications are received, AFRPA will reconvene a RAB Selection Panel by mid November.
- AFRPA's Director would review the new member nominations by early December.
- AFRPA's Director would accept or decline new RAB members by mid December and notify them in writing NLT January 1, 2009.
- Returning and new RAB members will attend the January 13, 2009 RAB meeting.

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# ***Questions***

- **Questions from RAB**

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# ***Suggested Agenda Items*** ***13 January 09 RAB***

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**8:25 – 8:30 p.m.**

- Suggested Agenda Items For Next  
RAB**

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# ***Adjournment***

**8:30 p.m.**

**▪ Adjournment**

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# *Notes – Upcoming Meetings*

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## ■ **Next RAB Meeting:**

- 13 January 2009, 6:30 p.m.

## ■ **Location:**

- Port Authority San Antonio - Main Conference Room

## ■ **NEW ADMINISTRATIVE RECORD SITE:**

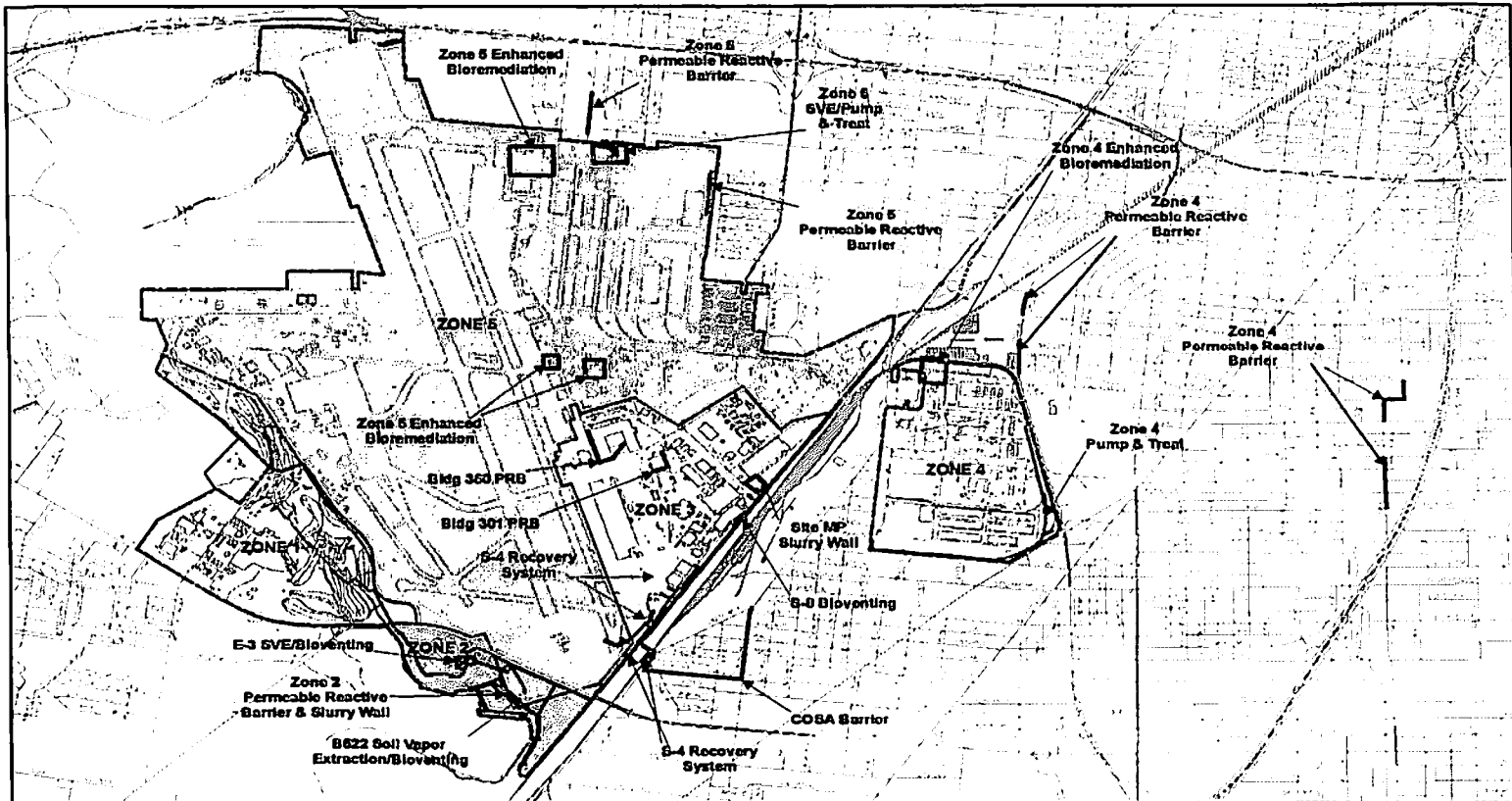
<https://afarpaar.lackland.af.mil/ar/docsearch.aspx>



# Former Kelly AFB Cleanup Systems (Red Shapes)

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## Remediation Systems/Processes June 2007



Air Force  
Real Property Agency  
Former Kelly AFB, Texas