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FINAL TECHNICAL MEMORANDUM RECOMMENDED ACTION UNDERGROUND STORAGE  
TANKS NAS FORT WORTH TX  
1/1/1999  
HYDROGEOLOGIC



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

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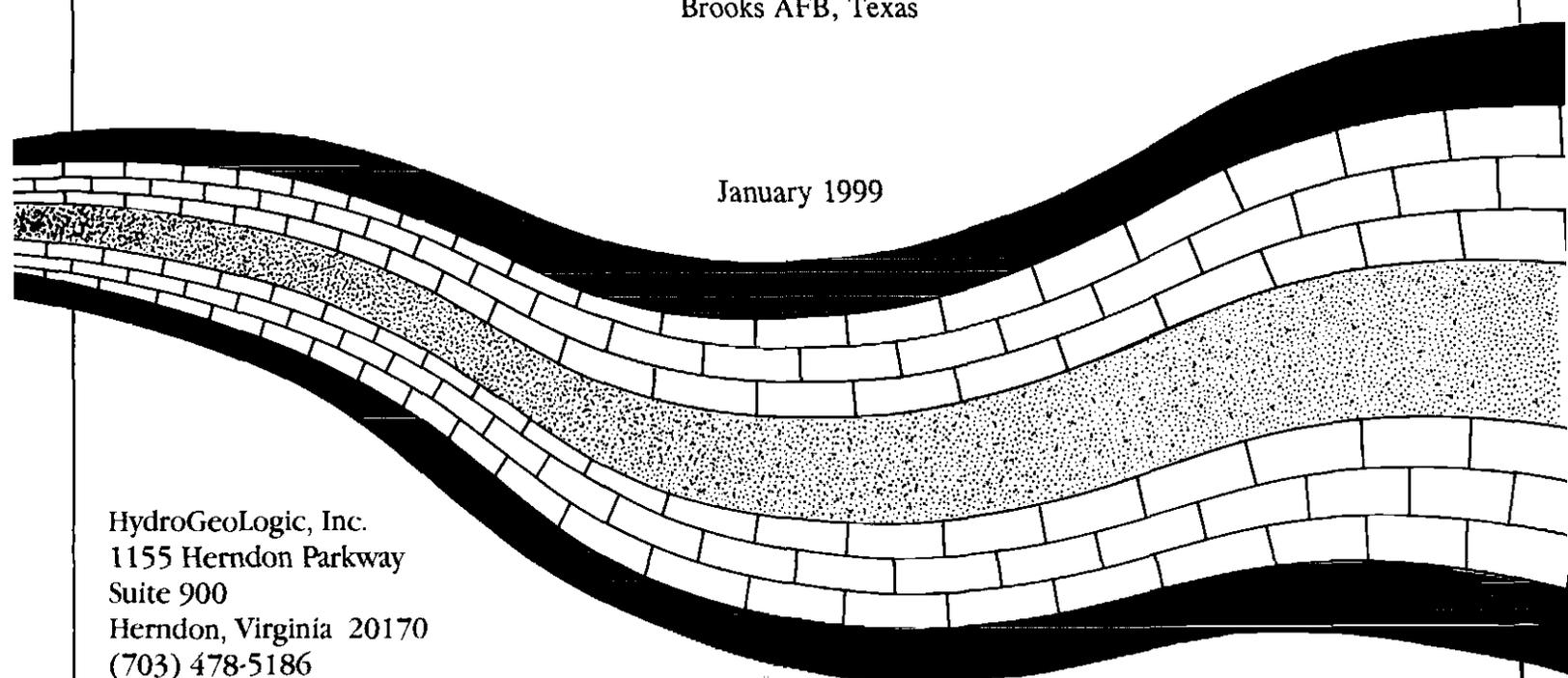
**FINAL  
TECHNICAL MEMORANDUM  
RECOMMENDED ACTIONS  
UNDERGROUND STORAGE TANKS  
NAS FORT WORTH JRB, TEXAS**



Prepared for  
U.S. Air Force Center for Environmental Excellence  
Brooks AFB, Texas

January 1999

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**FINAL  
TECHNICAL MEMORANDUM  
RECOMMENDED ACTIONS  
UNDERGROUND STORAGE TANKS  
NAS FORT WORTH JRB, TEXAS**

Contract No. F41624-95-D-8005  
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Prepared for

U.S. Air Force Center for Environmental Excellence  
Brooks AFB, Texas

Prepared by

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January 1999

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## TABLE OF CONTENTS

|     |                                                                                                | Page |
|-----|------------------------------------------------------------------------------------------------|------|
| 1.0 | INTRODUCTION .....                                                                             | 1-1  |
| 1.1 | TECHNICAL MEMORANDUM OBJECTIVES .....                                                          | 1-1  |
| 1.2 | METHOD FOR EXCLUDING USTS FROM FURTHER<br>INVESTIGATION .....                                  | 1-1  |
| 2.0 | USTS REMOVED FROM CONSIDERATION .....                                                          | 2-1  |
| 2.1 | NON-EXISTENT USTS .....                                                                        | 2-1  |
| 2.2 | BASE REALIGNMENT AND CLOSURE RESPONSIBILITY .....                                              | 2-1  |
| 2.3 | NO FURTHER ACTION DETERMINATION ISSUED .....                                                   | 2-1  |
| 2.4 | USTS ADDRESSED UNDER ANOTHER SITE CHARACTERIZATION<br>AND REMEDIATION/MONITORING PROGRAM ..... | 2-2  |
| 2.5 | CLOSURE REQUESTED UNDER ANOTHER PROGRAM .....                                                  | 2-3  |
| 2.6 | ACTIVE USTS PASSING TRACER TIGHT® TESTS .....                                                  | 2-3  |
| 2.7 | USTS INSTALLED AFTER OCTOBER 1, 1994 .....                                                     | 2-4  |
| 2.8 | ACTIVE USTS EXEMPT FROM TNRCC REGULATORY<br>REQUIREMENTS .....                                 | 2-5  |
| 2.9 | SUMMARY .....                                                                                  | 2-5  |
| 3.0 | USTS REQUIRING FURTHER ACTION .....                                                            | 3-1  |
| 3.1 | USTS REMOVED WITHOUT DOCUMENTATION REQUIRING<br>SITE CHARACTERIZATION .....                    | 3-1  |
| 3.2 | USTS REQUIRING ADDITIONAL SAMPLING TO COMPLETE<br>SITE CHARACTERIZATION .....                  | 3-2  |
| 3.3 | USTS CHARACTERIZED AND PENDING SUBMITTAL TO THE<br>TNRCC AS NFA SITES .....                    | 3-3  |
| 3.4 | USTS IDENTIFIED BY THE TNRCC WITHOUT A LOCATION .....                                          | 3-4  |

### APPENDIX A      FIGURES

### LIST OF TABLES

|           |                                                                                    | <b>Page</b> |
|-----------|------------------------------------------------------------------------------------|-------------|
| Table 1.1 | Underground Storage Tanks, NAS Fort Worth JRB, Texas . . . . .                     | 1-3         |
| Table 2.1 | Active Underground Storage Tanks Passing Tracer Tight® Tests-1994 . . .            | 2-6         |
| Table 2.2 | Active Underground Storage Tanks Passing Tracer Tight® Tests-1995 . . .            | 2-7         |
| Table 2.3 | Active Underground Storage Tanks Passing Tracer Tight® Tests-1996 . . .            | 2-9         |
| Table 2.4 | Active Underground Storage Tanks Passing Tracer Tight®<br>Tests-1997,1998. . . . . | 2-11        |
| Table 2.5 | Underground Storage Tanks Requiring Further Action . . . . .                       | 2-13        |

## LIST OF ACRONYMS AND ABBREVIATIONS

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|                    |                                                     |
|--------------------|-----------------------------------------------------|
| AFB                | Air Force Base                                      |
| AFCEE              | Air Force Center for Environmental Excellence       |
| AGE                | aerospace ground equipment                          |
| AIMD               | aircraft intermediate maintenance department        |
| AOC                | Area of Concern                                     |
| BRAC               | Base Realignment and Closure                        |
| BTEX               | benzene, toluene, ethylbenzene, xylene              |
| DEG                | diesel electric generator                           |
| DERA               | Defense Environmental Restoration Account           |
| Eagle              | Eagle Construction and Environmental Services, Inc. |
| FSP                | Field Sampling Plan                                 |
| GCA                | ground control approach                             |
| HSP                | Health and Safety Plan                              |
| HydroGeoLogic      | HydroGeoLogic, Inc.                                 |
| IRP                | Installation Restoration Program                    |
| Jacobs             | Jacobs Engineering Group, Inc.                      |
| LPST               | leaking petroleum storage tank                      |
| mg/kg              | milligrams per kilogram                             |
| NA                 | not applicable                                      |
| NAS Fort Worth JRB | Naval Air Station Fort Worth Joint Reserve Base     |
| NFA                | no further action                                   |
| PST                | petroleum storage tank                              |
| RAP                | Remedial Action Plan                                |
| RCRA               | Resource Conservation and Recovery Act              |
| SWMU               | solid waste management unit                         |
| TAC                | Texas Administrative Code                           |
| TACAN              | tactical air navigation                             |
| TM                 | technical memorandum                                |
| TNRCC              | Texas Natural Resource Conservation Commission      |
| TPH                | total petroleum hydrocarbons                        |
| UST                | underground storage tank                            |
| WSA                | Weapons Storage Area                                |

**FINAL  
TECHNICAL MEMORANDUM  
RECOMMENDED ACTIONS  
UNDERGROUND STORAGE TANKS  
NAS FORT WORTH JRB, TEXAS**

## **1.0 INTRODUCTION**

Carswell Air Force Base (AFB) was officially re-aligned on September 30, 1993, and property was transferred from the Air Force to the Navy on October 1, 1994. The property transfer included all underground storage tanks (USTs) at Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB). The Air Force (through the Headquarters, Air Force Center for Environmental Excellence [AFCEE]), still retains responsibility for cleanup of any environmental contamination that occurred as a result of operations at the USTs prior to October 1, 1994. This Technical Memorandum (TM) describes the status and proposed disposition of environmental contamination at each UST at NAS Fort Worth JRB. The goal of this TM is to reach agreement between the Air Force and the Navy as to which tanks require further investigation by the Air Force.

Any additional UST investigation activities that the Air Force must perform will be conducted under the United States Air Force Installation Restoration Program (IRP). This work is authorized as Delivery Order No. 0016 under AFCEE Contract No. F41624-95-D-8005. Before the initiation of field investigation activities, this TM will be used to create site investigation work plans consisting of a Work Plan, a Field Sampling Plan (FSP), and a Health and Safety Plan (HSP). The NAS Fort Worth Base-Wide Quality Assurance Project Plan (HydroGeoLogic, 1998) will be used for all investigations at the base.

### **1.1 TECHNICAL MEMORANDUM OBJECTIVES**

The first objective of this TM is to outline the methods used to compile a comprehensive list of the actual and suspected USTs at the former Carswell AFB. The next objective of this TM is to explain the separation of USTs into the two general categories: USTs that are eliminated from additional investigation under the Air Force Defense Environmental Restoration Account (DERA) and USTs that are designated for further action. The final objective of this TM is to separate the USTs which are designated for further action into groups based on what is required to transfer the regulatory responsibility for installation restoration to NAS Fort Worth JRB or to request closure from the Texas Natural Resource Conservation Commission (TNRCC).

### **1.2 METHOD FOR EXCLUDING USTs FROM FURTHER INVESTIGATION**

HydroGeoLogic Inc. (HydroGeoLogic) compiled a list of all present and former USTs at the former Carswell AFB using an existing list from CH2M Hill's 1996 "Site Characterization Summary Informal Technical Information Report", as well as Air Force and Navy records. (See

Table 1.1) The location of each UST identified by this search is depicted in Plate 1. For the purposes of this TM, USTs will be identified by their associated building number. In the cases where multiple USTs are or were located at a single building, individual USTs will be identified using the associated building number followed by a sequential generic number (e.g., 0, 1, 2, 3, etc.).

The 132 USTs listed in Table 1.1 were identified as having potentially existed at Carswell AFB. For this TM, each UST was evaluated and was subsequently removed from consideration for the additional investigation if any of the following criteria were demonstrated:

- The UST never actually existed (e.g., was misidentified, mislabeled, or previously identified by hearsay).
- The UST is currently addressed under BRAC.
- The UST has been identified as or is pending no further action (NFA) by the TNRCC.
- The UST is currently undergoing site characterization via another remediation/monitoring program.
- The UST is addressed under the Solid Waste Management Unit (SWMU) 20 and 21 closures.
- The UST is currently active and has passed monthly tightness testing criteria (Tracer Tight® test).
- The UST is currently active but is exempt from regulatory requirements.
- The UST was installed after October 1, 1994.

Of the 132 USTs, 20 do not meet any of the above-stated criteria, and are recommended for further investigation to achieve transfer of regulatory responsibility for installation restoration or closure by one of the following methods:

- A submittal of previously collected site characterization data for TNRCC review
- An investigation of current site conditions

**Table 1.1**  
**Underground Storage Tanks**  
**NAS Fort Worth JRB, Texas**

| Building No. | SWMU No. | LPST No. | Location                 | Capacity (gallons) | Tank Type | Contents    | Installed         | Status               | Comments                                               |
|--------------|----------|----------|--------------------------|--------------------|-----------|-------------|-------------------|----------------------|--------------------------------------------------------|
| 1015-1       | 47       | 113190   | Engine Test Cell         | 3,000              | Steel     | JP-4        | 1967              | Removed April 1998   | NFA letter received from TNRCC on October 22, 1998.    |
| 1027-0       | 44/45    | NA       | Oil/Water Separator      | NA                 | NA        | NA          | NA                | NA                   | Does not exist, oil/water separator only. <sup>1</sup> |
| 1040-1       | NA       | NA       | Water-Fire Pump          | 400                | Steel     | Diesel      | 1955              | Removed June 1994    | No data available. Site investigation required.        |
| 1048-1       | NA       | NA       | VMFA 124                 | 600                | Steel     | Waste Oil   | 1995 <sup>2</sup> | In Use               | Contained in underground vault. <sup>2</sup>           |
| 1049-0       | NA       | NA       | A/C Maint. Dock          | NA                 | NA        | NA          | NA                | NA                   | Does not exist. <sup>1</sup>                           |
| 1049-1       | NA       | NA       | VMFA 112/A/C Maint. Dock | 600                | Steel     | Waste Oil   | 1995 <sup>2</sup> | In Use               | Contained in underground vault. <sup>2</sup>           |
| 1050         | 31       | NA       | A/C Maint. Hangar        | 15,000             | Steel     | Heating Oil | 1982              | Removed October 1998 | Clean closure reported by the Navy.                    |
| 1050-1       | NA       | NA       | A/C Maint. Hangar        | 600                | Steel     | Waste Oil   | 1995 <sup>2</sup> | In Use               | Contained in underground vault. <sup>2</sup>           |
| 1060         | NA       | NA       | AIMD Shop                | 250                | Steel     | Waste Oil   | 1987              | In Use               | Passed Tracer Tight® tests.                            |
| 1064-1a      | NA       | 100485   | Vehicle Fueling          | Unknown            | Unknown   | Unknown     | Unknown           | Removed 1987         | NFA according to TNRCC Austin. <sup>3</sup>            |
| 1064-2a      | NA       | 100485   | Vehicle Fueling          | Unknown            | Unknown   | Unknown     | Unknown           | Removed 1987         | NFA according to TNRCC Austin. <sup>3</sup>            |
| 1064-3a      | NA       | 100485   | Vehicle Fueling          | Unknown            | Unknown   | Unknown     | Unknown           | Removed 1987         | NFA according to TNRCC Austin. <sup>3</sup>            |
| 1064-4a      | NA       | 100485   | Vehicle Fueling          | Unknown            | Unknown   | Unknown     | Unknown           | Removed 1987         | NFA according to TNRCC Austin. <sup>3</sup>            |
| 1064-1b      | NA       | NA       | Vehicle Fueling          | 10,000             | Steel     | Gasoline    | 1988              | In Use               | Passed Tracer Tight® tests.                            |
| 1064-2b      | NA       | NA       | Vehicle Fueling          | 10,000             | Steel     | Gasoline    | 1988              | In Use               | Passed Tracer Tight® tests.                            |
| 1064-3b      | NA       | NA       | Vehicle Fueling          | 10,000             | Steel     | Diesel      | 1988              | In Use               | Passed Tracer Tight® tests.                            |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No. | Location              | Capacity (gallons) | Tank Type  | Contents  | Installed         | Status                 | Comments                                                                              |
|--------------|----------|----------|-----------------------|--------------------|------------|-----------|-------------------|------------------------|---------------------------------------------------------------------------------------|
| 1064-4b      | NA       | NA       | Vehicle Fueling       | 10,000             | Steel      | Diesel    | 1988              | In Use                 | Passed Tracer Tight® tests.                                                           |
| 1140-1       | NA       | 093351   | Old Hobby Shop        | 400                | Steel      | Waste Oil | Unknown           | Removed September 1989 | Analytical results sufficient for closure. Closure report will be submitted to TNRCC. |
| 1140-2       | NA       | 093351   | Old Hobby Shop        | 550                | Steel      | Waste Oil | Unknown           | Removed September 1989 | Analytical results sufficient for closure. Closure report will be submitted to TNRCC. |
| 1145-1       | AOC 13   | NA       | Auto Hobby Shop       | 1,000              | Steel      | Waste Oil | 1982              | In Use                 | Passed Tracer Tight® tests.                                                           |
| 1170-1       | 68       | 104819   | POL Pump Station      | 2,000              | Steel      | JP-8      | 1961              | Removed November 1996  | Corrective action completed in August 1996.                                           |
| 1170-2       | 68       | 104819   | POL Pump Station      | 2,000              | Steel      | JP-8      | 1961              | Removed November 1996  | Corrective action completed in August 1996.                                           |
| 1170-3       | 68       | NA       | POL Pump Station      | 2,000              | Fiberglass | JP-4      | 1996              | In Use                 | Installed after October 1, 1994.                                                      |
| 1170-4       | 68       | NA       | POL Pump Station      | 2,000              | Fiberglass | JP-4      | 1997              | In Use                 | Installed after October 1, 1994.                                                      |
| 1191-1       | 37       | NA       | Vehicle Maint. Shop   | 500                | Steel      | Waste Oil | 1983              | Removed October 1993   | No data available. Site investigation required.                                       |
| 1191-2       | 37       | NA       | Vehicle Maint. Shop   | 1,000              | Steel      | Waste Oil | Unknown           | In Use                 | Passed Tracer Tight® tests.                                                           |
| 1194-1       | 35       | NA       | Refueling Maint. Shop | 2,000              | Steel      | Waste Oil | 1983              | In Use                 | Passed Tracer Tight® tests.                                                           |
| 1364-1       | NA       | NA       | NRMCB-22              | 600                | Steel      | Waste Oil | 1997 <sup>2</sup> | In Use                 | Contained in underground vault. <sup>2</sup>                                          |

**Table 1.1 (continued)**  
**Underground Storage Tanks**  
**NAS Fort Worth JRB, Texas**

| Building No. | SWMU No. | LPST No. | Location             | Capacity (gallons) | Tank Type | Contents    | Installed         | Status             | Comments                                                  |
|--------------|----------|----------|----------------------|--------------------|-----------|-------------|-------------------|--------------------|-----------------------------------------------------------|
| 1403         | NA       | NA       | VF 201 Squad         | 600                | Steel     | Waste Oil   | 1995 <sup>2</sup> | In Use             | Contained in underground vault. <sup>2</sup>              |
| 1405         | NA       | NA       | T-Line Ops           | 600                | Steel     | Waste Oil   | 1995 <sup>2</sup> | In Use             | Contained in underground vault. <sup>2</sup>              |
| 1410         | NA       | NA       | MAG 41 MWSS          | 600                | Steel     | Waste Oil   | 1995 <sup>2</sup> | In Use             | Contained in underground vault. <sup>2</sup>              |
| 1411-1       | NA       | NA       | AGE Refueling        | 2,000              | Steel     | Jet Fuel    | 1963              | Removed March 1996 | Soil contamination present. Site investigation required.  |
| 1411-2       | NA       | NA       | AGE Refueling        | 2,000              | Steel     | Diesel      | 1963              | Removed March 1996 | Soil contamination present. Site investigation required.  |
| 1411-3       | NA       | NA       | AGE Refueling        | 2,000              | Steel     | Gasoline    | 1963              | Removed March 1996 | Soil contamination present. Site investigation required.  |
| 1411-4       | NA       | NA       | AGE Refueling        | NA                 | NA        | NA          | NA                | NA                 | Tank did not exist. <sup>1</sup>                          |
| 1420-2       | 33       | NA       | AIMD ENG             | 2,000              | Steel     | Heating Oil | 1983              | In Use             | Noted as 1420-1 by CH2M Hill. Passed Tracer Tight® tests. |
| 1423-1       | NA       | NA       | Air Freight Terminal | 500                | Steel     | Waste Oil   | 1967              | In Use             | Associated with 1420. Passed Tracer Tight® tests.         |
| 1425-1       | NA       | NA       | Fire Station         | 1,000              | Steel     | Diesel      | 1955              | In Use             | Passed Tracer Tight® tests.                               |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No. | Location                | Capacity (gallons) | Tank Type  | Contents  | Installed | Status                | Comments                                                                                  |
|--------------|----------|----------|-------------------------|--------------------|------------|-----------|-----------|-----------------------|-------------------------------------------------------------------------------------------|
| 1427-1       | NA       | NA       | Rapcon Support          | 1,000              | Steel      | Diesel    | 1976      | Removed November 1990 | Soil and groundwater contamination. Site investigation required.                          |
| 1518-1       | AOC 1    | 104524   | AAFES Service Station   | 10,000             | Fiberglass | Gasoline  | 1972      | Removed May 1993      | Site covered by a separate project.                                                       |
| 1518-2       | AOC 1    | 104524   | AAFES Service Station   | 10,000             | Fiberglass | Gasoline  | 1972      | Removed May 1993      | Site covered by a separate project.                                                       |
| 1518-3       | AOC 1    | 104524   | AAFES Service Station   | 10,000             | Fiberglass | Gasoline  | 1972      | Removed May 1993      | Site covered by a separate project.                                                       |
| 1518-4       | AOC 1    | 104524   | AAFES Service Station   | 10,000             | Fiberglass | Gasoline  | 1972      | Removed May 1993      | Site covered by a separate project.                                                       |
| 1518-5       | AOC 1    | 104524   | AAFES Service Station   | 600                | Fiberglass | Waste Oil | 1970      | Removed May 1996      | Analytical results sufficient for closure. Closure report will be submitted to the TNRCC. |
| 1627-1       | 5-9      | NA       | Vehicle Fueling Station | NA                 | NA         | NA        | NA        | NA                    | Tank did not exist, mislabeled. <sup>1</sup>                                              |
| 1627-2       | 5-9      | NA       | Vehicle Fueling Station | NA                 | NA         | NA        | NA        | NA                    | Tank did not exist, mislabeled. <sup>1</sup>                                              |
| 1627-3       | 5-9      | NA       | Vehicle Fueling Station | NA                 | NA         | NA        | NA        | NA                    | Tank did not exist, mislabeled. <sup>1</sup>                                              |
| 1628-1       | 5-9      | 106684   | AGE Fueling             | 1,000              | Steel      | Gasoline  | 1982      | Removed May 1993      | Site covered by a separate project.                                                       |
| 1628-2       | 5-9      | 106684   | AGE Fueling             | 1,000              | Steel      | Diesel    | 1982      | Removed May 1993      | Site covered by a separate project.                                                       |
| 1628-3       | 5-9      | 106684   | AGE Fueling             | 2,000              | Steel      | Jet Fuel  | 1982      | Removed May 1993      | Site covered by a separate project.                                                       |
| 1628-4       | 5-9      | NA       | Oil/Water Separator     | 4,380              | Steel      | Waste Oil | Unknown   | In Use                | Passed Tracer Tight® tests.                                                               |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No. | Location                       | Capacity (gallons) | Tank Type  | Contents                 | Installed | Status                             | Comments                                                                                                                          |
|--------------|----------|----------|--------------------------------|--------------------|------------|--------------------------|-----------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1629-1       | NA       | 109095   | Security                       | 500                | Steel      | Diesel                   | 1980      | Removed<br>October 1993            | NFA according to TNRCC Austin. <sup>3</sup>                                                                                       |
| 1643-1       | 39       | NA       | 301 A/C Maint.<br>Hangar       | 8,500              | Steel      | Heating Oil              | 1982      | Abandoned<br>in place June<br>1998 | Clear closure letter from TNRCC received in September 1998.                                                                       |
| 1643-2       | 39       | NA       | 301 A/C Maint.<br>Hangar       | NA                 | NA         | NA                       | NA        | NA                                 | Tank did not exist,<br>oil/water separator only. <sup>1</sup>                                                                     |
| 1643-3       | 39       | NA       | 301 A/C Maint.<br>Hangar       | NA                 | NA         | NA                       | NA        | NA                                 | Tank did not exist,<br>oil/water separator only. <sup>1</sup>                                                                     |
| 1655         | NA       | NA       | 301 A/C Maint.<br>Shop         | 550                | Steel      | Waste Oil                | Unknown   | In Use                             | Passed Tracer Tight® tests.                                                                                                       |
| 1656         | NA       | NA       | 301 A/C Maint.<br>Dock         | 1,000              | Fiberglass | N-Hydrazine <sup>3</sup> | 1991      | In Use                             | Tank not considered a hazardous storage tank. Exempt from regulation as stated by TNRCC. USAF has retained ownership of this UST. |
| 1658-1       | NA       | NA       | Electric Pwr.<br>Gen. Plant    | 275                | Unknown    | Diesel                   | Unknown   | Removed<br>October 1990            | Analytical results sufficient for closure. Closure report will be submitted to the TNRCC.                                         |
| 1749-1       | NA       | NA       | Electric Pwr.<br>Bldg. Station | NA                 | NA         | NA                       | NA        | NA                                 | Tank did not exist. <sup>1</sup>                                                                                                  |
| 1750-1       | NA       | NA       | Comm. Relay<br>Station         | 8,000              | Fiberglass | Diesel                   | 1986      | Removed<br>May 1996                | Inadequate samples, site investigation required.                                                                                  |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No. | Location                 | Capacity (gallons) | Tank Type  | Contents    | Installed | Status             | Comments                                                                                          |
|--------------|----------|----------|--------------------------|--------------------|------------|-------------|-----------|--------------------|---------------------------------------------------------------------------------------------------|
| 1750-2       | NA       | NA       | Comm. Relay Station      | 20,000             | Steel      | Diesel      | 1957      | Abandoned in place | No analytical data, site investigation required.                                                  |
| 1752         | NA       | NA       | Simulator                | 550                | Steel      | Empty       | Unknown   | In Use             | Overflow tank with 24-hour pump out. <sup>2</sup> Tank considered exempt from monthly monitoring. |
| 3000-1       | NA       | NA       | Hospital DEG             | 15,000             | Fiberglass | Diesel      | 1985      | In Use             | UST located in the Bureau of Prisons area. Site covered under BRAC.                               |
| 3000-2       | NA       | NA       | Hospital DEG             | 15,000             | Fiberglass | Diesel      | 1985      | In Use             | UST located in the Bureau of Prisons area. Site covered under BRAC.                               |
| 3001-1       | NA       | 113425   | Hospital Boiler Facility | 10,000             | Fiberglass | Diesel      | 1958      | In Use             | UST located in the Bureau of Prisons area. Site covered under BRAC.                               |
| 3001-2       | NA       | 113425   | Hospital Boiler Facility | 10,000             | Steel      | Heating Oil | 1958      | In Use             | UST located in the Bureau of Prisons area. Site covered under BRAC.                               |
| 3001-3       | NA       | 113425   | Hospital Boiler Facility | 20,000             | Steel      | Heating Oil | 1959      | Removed May 1996   | UST located in the Bureau of Prisons area. Site covered under BRAC.                               |
| 3190         | NA       | NA       | Youth Center             | 2,000              | Fiberglass | Heating Oil | Unknown   | In Use             | Passed Tracer Tight <sup>®</sup> tests.                                                           |
| 3359-1       | NA       | NA       | Reserve Fire Team Fac.   | 2,000              | Steel      | Diesel      | 1979      | In Use             | Passed Tracer Tight <sup>®</sup> tests.                                                           |
| 3360-1       | NA       | NA       | Electric Pwr. Gen. Plant | 5,000              | Steel      | Diesel      | 1978      | In Use             | Passed Tracer Tight <sup>®</sup> tests.                                                           |
| 4102-1       | NA       | NA       | Air Surv. Radar DEG      | 315                | Steel      | Diesel      | 1980      | Removed May 1996   | Site covered under BRAC.                                                                          |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No. | Location                 | Capacity (gallons) | Tank Type  | Contents | Installed | Status               | Comments                                                               |
|--------------|----------|----------|--------------------------|--------------------|------------|----------|-----------|----------------------|------------------------------------------------------------------------|
| 4111-1       | NA       | NA       | Electric Pwr. Gen. Plant | 500                | Steel      | Diesel   | 1979      | In Use               | Passed Tracer Tight® tests.                                            |
| 4115-1       | NA       | NA       | Old GCA Site DEG         | 600                | Steel      | Diesel   | 1968      | Removed January 1991 | No data available. Tank location unclear. Site investigation required. |
| 4127-1       | NA       | NA       | Electric Pwr. Gen. Plant | 500                | Steel      | Diesel   | 1959      | In Use               | Passed Tracer Tight® tests.                                            |
| 4135-1       | NA       | NA       | Electric Pwr. Gen. Plant | NA                 | NA         | NA       | NA        | NA                   | Tank did not exist. <sup>1</sup>                                       |
| 4136-1       | NA       | NA       | TACAN Station DEG        | 100                | Fiberglass | Diesel   | 1980      | Removed 1991         | No data available. Tank location unclear. Site investigation required. |
| 4136-2       | NA       | NA       | TACAN Station DEG        | 300                | Fiberglass | Diesel   | 1991      | In Use               | Passed Tracer Tight® tests.                                            |
| 4141-1       | NA       | NA       | Electric Pwr. Gen. Plant | 250                | Steel      | Diesel   | 1959      | In Use               | Passed Tracer Tight® tests.                                            |
| 4143         | NA       | NA       | Comm. Transmitter DEG    | 500                | Steel      | Diesel   | 1964      | In Use               | Passed Tracer Tight® tests.                                            |
| 4145-1       | NA       | NA       | Electric Pwr. Gen. Plant | 500                | Steel      | Diesel   | 1981      | In Use               | Passed Tracer Tight® tests.                                            |
| 4150-1       | AOC 4    | 108711   | Hydrant Refueling        | 25,000             | Steel      | JP-4     | 1951      | Removed July 1994    | Site covered in a separate project for AOC 4.                          |
| 4150-2       | AOC 4    | 108711   | Hydrant Refueling        | 25,000             | Steel      | JP-4     | 1951      | Removed July 1994    | Site covered in a separate project for AOC 4.                          |
| 4150-3       | AOC 4    | 108711   | Hydrant Refueling        | 25,000             | Steel      | JP-4     | 1951      | Removed July 1994    | Site covered in a separate project for AOC 4.                          |

**Table 1.1 (continued)**  
**Underground Storage Tanks**  
**NAS Fort Worth JRB, Texas**

| Building No. | SWMU No. | LPST No. | Location          | Capacity (gallons) | Tank Type | Contents | Installed | Status            | Comments                                      |
|--------------|----------|----------|-------------------|--------------------|-----------|----------|-----------|-------------------|-----------------------------------------------|
| 4150-4       | AOC 4    | 108711   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4150-5       | AOC 4    | 108711   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4150-6       | AOC 4    | 108711   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4152-1       | AOC 4    | 108712   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4152-2       | AOC 4    | 108712   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4152-3       | AOC 4    | 108712   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4152-4       | AOC 4    | 108712   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4152-5       | AOC 4    | 108712   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4152-6       | AOC 4    | 108712   | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4153-1       | AOC 4    | Unknown  | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1953      | Removed May 1995  | Site covered in a separate project for AOC 4. |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No.          | Location          | Capacity (gallons) | Tank Type | Contents | Installed | Status            | Comments                                      |
|--------------|----------|-------------------|-------------------|--------------------|-----------|----------|-----------|-------------------|-----------------------------------------------|
| 4153-2       | AOC 4    | Unknown           | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1953      | Removed May 1995  | Site covered in a separate project for AOC 4. |
| 4153-3       | AOC 4    | Unknown           | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1953      | Removed May 1995  | Site covered in a separate project for AOC 4. |
| 4153-4       | AOC 4    | Unknown           | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1953      | Removed May 1995  | Site covered in a separate project for AOC 4. |
| 4153-5       | AOC 4    | Unknown           | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1953      | Removed May 1995  | Site covered in a separate project for AOC 4. |
| 4153-6       | AOC 4    | Unknown           | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1953      | Removed May 1995  | Site covered in a separate project for AOC 4. |
| 4154-1       | AOC 4    | 095220/<br>108713 | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4154-2       | AOC 4    | 095220/<br>108713 | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4154-3       | AOC 4    | 095220/<br>108713 | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4154-4       | AOC 4    | 095220/<br>108713 | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |
| 4154-5       | AOC 4    | 095220/<br>108713 | Hydrant Refueling | 25,000             | Steel     | JP-4     | 1951      | Removed July 1994 | Site covered in a separate project for AOC 4. |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No.          | Location                    | Capacity (gallons) | Tank Type | Contents  | Installed | Status                       | Comments                                         |
|--------------|----------|-------------------|-----------------------------|--------------------|-----------|-----------|-----------|------------------------------|--------------------------------------------------|
| 4154-6       | AOC 4    | 095220/<br>108713 | Hydrant<br>Refueling        | 25,000             | Steel     | JP-4      | 1951      | Removed<br>July 1994         | Site covered in a separate<br>project for AOC 4. |
| 4155-1       | NA       | NA                | Airfield Lighting<br>DEG    | 1,000              | Steel     | Diesel    | 1955      | In Use                       | Passed Tracer Tight® tests.                      |
| 4170-1       | AOC 4    | 104484            | Hydrant<br>Refueling        | 25,000             | Steel     | JP-4      | 1952      | Removed<br>September<br>1992 | NFA according to TNRCC<br>Austin. <sup>3</sup>   |
| 4170-2       | AOC 4    | 104484            | Hydrant<br>Refueling        | 25,000             | Steel     | JP-4      | 1952      | Removed<br>September<br>1992 | NFA according to TNRCC<br>Austin. <sup>3</sup>   |
| 4170-3       | AOC 4    | 104484            | Hydrant<br>Refueling        | 25,000             | Steel     | JP-4      | 1952      | Removed<br>September<br>1992 | NFA according to TNRCC<br>Austin. <sup>3</sup>   |
| 4170-4       | AOC 4    | 104484            | Hydrant<br>Refueling        | 25,000             | Steel     | JP-4      | 1952      | Removed<br>September<br>1992 | NFA according to TNRCC<br>Austin. <sup>3</sup>   |
| 4170-5       | AOC 4    | 104484            | Hydrant<br>Refueling        | 25,000             | Steel     | JP-4      | 1952      | Removed<br>September<br>1992 | NFA according to TNRCC<br>Austin. <sup>3</sup>   |
| 4170-6       | AOC 4    | 104484            | Hydrant<br>Refueling        | 25,000             | Steel     | JP-4      | 1932      | Removed<br>September<br>1992 | NFA according to TNRCC<br>Austin. <sup>3</sup>   |
| 4171-1       | AOC 4    | NA                | Electric Pwr.<br>Gen. Plant | 5,000              | Steel     | Diesel    | 1976      | In Use                       | Passed Tracer Tight® tests.                      |
| 4205         | NA       | NA                | Rocket Assy.<br>Storage     | 550                | Unknown   | Waste Oil | Unknown   | In Use                       | Passed Tracer Tight® tests.                      |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No. | Location             | Capacity (gallons) | Tank Type  | Contents    | Installed | Status               | Comments                                                                                  |
|--------------|----------|----------|----------------------|--------------------|------------|-------------|-----------|----------------------|-------------------------------------------------------------------------------------------|
| 4210-1       | AOC 12   | 100485   | Missile Assy. Shop   | 8,000              | Fiberglass | JP-10       | 1985      | Removed May 1996     | Analytical results sufficient for closure. Closure report will be submitted to the TNRCC. |
| 4210-2       | AOC 12   | 100485   | Missile Assy. Shop   | 8,000              | Fiberglass | JP-10       | 1985      | Removed May 1996     | Analytical results sufficient for closure. Closure report will be submitted to the TNRCC. |
| 4210-3       | AOC 12   | 100485   | Missile Assy. Shop   | 8,000              | Fiberglass | JP-10       | 1985      | Removed May 1996     | Analytical results sufficient for closure. Closure report will be submitted to the TNRCC. |
| 4210-4       | AOC 12   | NA       | Missile Assy. Shop   | 6,000              | Steel      | Heating Oil | 1985      | In Use               | Passed Tracer Tight® tests.                                                               |
| 4210-5       | AOC 12   | 100485   | Missile Assy. Shop   | 2,000              | Fiberglass | JP-10       | 1985      | Removed May 1996     | Analytical results sufficient for closure. Closure report will be submitted to the TNRCC. |
| 4210-6       | AOC 12   | NA       | Missile Assy. Shop   | 1,000              | Unknown    | Waste Oil   | Unknown   | In Use               | Passed Tracer Tight® tests.                                                               |
| 4215-1       | NA       | NA       | Special Weapons Shop | 1,000              | Steel      | Heating Oil | Unknown   | In Use               | Passed Tracer Tight® tests.                                                               |
| 4216-1       | NA       | NA       | Electric Gen. Plant  | 5,000              | Fiberglass | Diesel      | 1983      | In Use               | Passed Tracer Tight® tests.                                                               |
| 8500-1       | NA       | NA       | WSA                  | 750                | Unknown    | Heating Oil | Unknown   | Removed October 1990 | Site covered in a separate IBRAC project.                                                 |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No. | Location                                  | Capacity (gallons) | Tank Type | Contents    | Installed | Status                 | Comments                                            |
|--------------|----------|----------|-------------------------------------------|--------------------|-----------|-------------|-----------|------------------------|-----------------------------------------------------|
| 8503-1       | 59       | NA       | WSA                                       | 2,000              | Unknown   | Heating Oil | Unknown   | Removed September 1990 | Site covered in a separate BRAC project.            |
| 8505-1       | NA       | NA       | WSA                                       | 5,000              | Unknown   | Diesel      | Unknown   | Removed October 1990   | Site covered in a separate BRAC project.            |
| 8507-1       | NA       | NA       | WSA                                       | 1,000              | Unknown   | Heating Oil | Unknown   | Removed October 1990   | Site covered in a separate BRAC project.            |
| 8514-1       | NA       | 091568   | WSA                                       | 1,200              | Steel     | Diesel      | 1971      | Removed November 1990  | Site covered in a separate BRAC project.            |
| 8514-2       | NA       | NA       | WSA                                       | 1,000              | Steel     | Heating Oil | 1964      | In Use                 | Site covered in a separate BRAC project.            |
| Unknown      | AOC 7    | NA       | Public Works Service Station              | Unknown            | Unknown   | Unknown     | Unknown   | Unknown                | AST/USTs were removed. Covered under AOC 7 program. |
| Unknown      | 20       | NA       | Fire Training Area/Waste Oil/Storage Tank | Unknown            | Unknown   | Waste Oil   | Unknown   | Unknown                | Site covered under Fire Training Area closure.      |
| Unknown      | 21       | NA       | Fire Training Area/Waste Oil Tank         | Unknown            | Unknown   | Waste Oil   | Unknown   | Unknown                | Site covered under Fire Training Area closure.      |

Table 1.1 (continued)  
Underground Storage Tanks  
NAS Fort Worth JRB, Texas

| Building No. | SWMU No. | LPST No. | Location | Capacity (gallons) | Tank Type | Contents | Installed | Status    | Comments                                                                                                                          |
|--------------|----------|----------|----------|--------------------|-----------|----------|-----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------|
| Unknown      | NA       | NA       | GCA-1    | NA                 | NA        | Jet Fuel | NA        | Abandoned | Records suggest that the tank did not exist. A site investigation will be required to confirm the existence of the abandoned UST. |
| Unknown      | NA       | NA       | GCA-2    | NA                 | NA        | Gasoline | NA        | Abandoned | Records suggest that the tank did not exist. A site investigation will be required to confirm the existence of the abandoned UST. |

<sup>1</sup> USTs suspected as non-existent (CH2M Hill, 1996) and confirmed by a records search and a February 19, 1997, interview with Mr. Les Bowers of the Navy Environmental Office.

<sup>2</sup> From personal interviews with Navy and/or 301st Air Reserve personnel.

<sup>3</sup> UST status with the TNRCC was determined as no further action (NFA) by an on-line search of the TNRCC Petroleum Storage Tank records and a records search of the TNRCC Austin Office by Mr. Les Bowers and Ms. Karen McElroy of the Navy Environmental Office.

NA = Not Applicable

Sources: CH2M Hill, "Site Characterization Summary Informal Technical Information Report," November 1996.

TNRCC Petroleum Storage Tanks Detail Listing, January 23, 1997.

Navy Environmental Office, Mr. Les Bowers and Ms. Karen McElroy, February 19, 1998.

301st Air Reserve, Mr. Lance Key, February 1998.

## 2.0 USTs REMOVED FROM CONSIDERATION

This section provides a detailed account of each of the criteria that were applied to the 132 USTs in Table 1.1 in order to separate USTs into two general groups. The two groups consist of USTs that can be excluded from further investigation and USTs that require additional characterization before closure can be requested.

### 2.1 NON-EXISTENT USTs

In February 1997, HydroGeoLogic interviewed Mr. Les Bowers of the Navy Environmental Office to obtain information about several USTs identified by CH2M Hill as potentially non-existent. Mr. Bowers confirmed that ten of the USTs included in Table 1.1 never existed. The following ten USTs were removed from consideration:

- Building 1027
- Building 1049, UST No. 0
- Building 1411, UST No. 4
- Building 1627, USTs Nos. 1, 2, and 3
- Building 1643, USTs Nos. 2 and 3
- Building 1749
- Building 4135

### 2.2 BASE REALIGNMENT AND CLOSURE RESPONSIBILITY

A total of 12 USTs, including 6 located in the Weapons Storage Area (WSA), and five located in the Bureau of Prisons area, are addressed under the NAS Fort Worth JRB BRAC agreement. These 12 USTs were removed from consideration and are identified as follows:

- Building 3000, USTs Nos. 1 and 2 (Bureau of Prisons)
- Building 3001, USTs Nos. 1, 2, and 3 (Bureau of Prisons)
- Building 4102 (Air Survey Radar)
- Building 8500 (WSA)
- Building 8503 (WSA)
- Building 8505 (WSA)
- Building 8507 (WSA)
- Building 8514, USTs Nos. 1 and 2 (WSA)

### 2.3 NO FURTHER ACTION DETERMINATION ISSUED

HydroGeoLogic searched the Petroleum Storage Tank (PST) Division Internet homepage, and, in addition, Mr. Les Bowers and Ms. Karen McElroy from the Navy Environmental Office conducted a records search at the TNRCC office in Austin, Texas, during the first week of March 1998. After reviewing information available from the TNRCC and the Navy Environmental Office, it was determined that 13 USTs have already received an NFA determination by the TNRCC. In addition, one UST, which is exempt from TNRCC regulation, has been removed by

the Navy in accordance with their clean closure procedures. These 14 USTs were removed from consideration and are identified as follows:

- **Building 1050**, UST 1050, a heating oil tank, was removed by the Navy in October, 1998. This UST is not regulated by the TNRCC. A clean closure was reported by the Navy.
- **Building 1015**, UST 1015-1 was removed by the Navy in April, 1998. NFA letter was received from the TNRCC by the Navy in October, 1998.
- **Building 1064**, USTs Nos. 1a, 2a, 3a, and 4a are listed as NFA on TNRCC records. These USTs were removed by the Navy and 4 new USTs were subsequently installed.
- **Building 1629**, UST is listed as NFA on TNRCC records.
- **Building 1643**, UST 1643-1. Clean closure letter received from the TNRCC in September 1998.
- **Building 4170**, USTs Nos. 1, 2, 3, 4, 5, and 6 are listed as NFA on TNRCC records.

#### 2.4 USTs ADDRESSED UNDER ANOTHER SITE CHARACTERIZATION AND REMEDIATION/MONITORING PROGRAM

Site characterization and remediation/monitoring are currently being conducted at 34 former UST sites comprising several locations. The 34 USTs were removed from consideration and are identified as follows:

- **Building 1170**, USTs Nos. 1 and 2 were removed from the ground by the Navy and replaced with USTs Nos. 3 and 4. The TNRCC has concurred with the Remedial Action Plan (RAP) submitted in November of 1996 and the corrective action (except the monitoring wells) was completed in August, 1996.
- **Building 1518**, USTs Nos. 1, 2, 3, and 4 (AFCEE - IRP Area of Concern (AOC) 1). A Corrective Action Plan was approved by the TNRCC. The Corrective Action is complete. The Air Force will be requesting closure from the TNRCC in 1999.
- **Building 1628**, USTs Nos. 1, 2 and 3 (Addressed by the 301st FW) are addressed under U.S. Army Corps of Engineers Contract No. DACA63-92-D-0046 with WC Environmental Group (a division of Perry Williams), Delivery Order No. 0002. The scope of work performed under this delivery order included the removal of all of the subject USTs, the removal of the associated piping adjacent to the tanks, and the disposal in-place of the remaining piping associated with the USTs. Backfilling, site restoration, testing, and report generation for the site are also included under this contract (WC Environmental Group, 1993 and 1994).
- **Building 4150**, USTs Nos. 1, 2, 3, 4, 5, and 6 (AFCEE - IRP AOC 4)  
**Building 4152**, USTs Nos. 1, 2, 3, 4, 5, and 6 (AFCEE - IRP AOC 4)  
**Building 4153**, USTs Nos. 1, 2, 3, 4, 5, and 6 (AFCEE - IRP AOC 4)  
**Building 4154**, USTs Nos. 1, 2, 3, 4, 5, and 6 (AFCEE - IRP AOC 4)  
 The 24 USTs associated with Buildings 4150, 4152, 4153, and 4154 are covered under the site investigation activities of AOC 4, the fuel hydrant system. Work

will be conducted by HydroGeoLogic under AFCEE Contract No. F41624-95-D-8005, Delivery Order No. 0007. The purpose of the investigation is to complete the characterization of the site's environmental conditions, confirm the nature and extent of contamination in soil and groundwater identified in previous studies, and obtain closure of the site (HydroGeoLogic, 1997).

- **Public Works Fueling Station (AFCEE - IRP AOC 7)** The Public Works Fueling Station is addressed under the remedial action plan (RAP) prepared by Parsons Engineering Science, Inc., for AFCEE. The RAP was prepared in support of a risk-based remediation decision for Site ST14 (SWMU 68) and SD13, which is downgradient from ST14. SD13 is regulated under Title 31 of the Texas Administrative Code (TAC) Chapter 335, the Resource Conservation and Recovery Act (RCRA) rules, and consists of several permit-defined subsites, one of which is AOC 7 (Parsons Engineering Science, Inc., 1997).

## 2.5 CLOSURE REQUESTED UNDER ANOTHER PROGRAM

Two USTs were identified as being located at the former Fire Training Areas, identified as SWMUs 20 and 21. Requests for closure of these sites are being handled under the RCRA program. The two USTs were removed from consideration at this time and are identified as follows:

- SWMU 20
- SWMU 21

## 2.6 ACTIVE USTs PASSING TRACER TIGHT® TESTS

A total of 45 USTs were described in the records reviewed by HydroGeoLogic as active. Of these 45 active tanks, 5 USTs are currently addressed in the NAS Fort Worth JRB BRAC agreement discussed in section 2.2, 9 USTs were installed after October 1, 1994, and are listed in Section 2.7, and 2 USTs were exempt from monthly monitoring and are discussed in Section 2.8, leaving a total of 29 active USTs.

Active USTs that are regulated under the TNRCC PST program require monitoring to ensure that leaking does not occur. The USTs listed below were monitored by Unified Services of Texas, Inc., using a Tracer Tight® test that involves installing soil gas probes adjacent to the USTs and injecting an aerosol into each UST on a monthly basis. Soil gas samples were collected from the probes 7 to 35 days after the aerosol was injected into the tank and analyzed for the aerosol. If the aerosol was detected, an "Alarm I" was reported and a site investigation was conducted. If the site investigation revealed a potential problem, an "Alarm II" was reported and a tightness test was conducted. If the UST subsequently failed the tightness test, repairs to the UST or associated lines were required.

Tracer Tight® test records from January 1994 through September 1997, when the Navy took over the testing were reviewed. In addition, tightness test results were obtained from Navy records for one UST that was added to the monitoring program in July 1998. Results of these tests, presented in Tables 2.1 through 2.4, revealed that 29 active USTs had passed Tracer Tight® tests. The 29

USTs that were removed from consideration based on the results of Tracer Tight® tests are identified as follows:

- Building 1060<sup>1</sup>
- Building 1064, USTs Nos. 1b, 2b, 3b, and 4b
- Building 1145
- Building 1191, UST No. 2
- Building 1194
- Building 1420, UST No. 2
- Building 1423
- Building 1425
- Building 1628, UST No. 4
- Building 1655
- Building 3190
- Building 3359
- Building 3360
- Building 4111
- Building 4127
- Building 4136, UST No. 2
- Building 4141
- Building 4143
- Building 4145
- Building 4155
- Building 4171
- Building 4205
- Building 4210, USTs Nos. 4 and 6
- Building 4215
- Building 4216

## 2.7 USTS INSTALLED AFTER OCTOBER 1, 1994

A total of nine USTs were identified from the Navy's list of active tanks as being installed after the base realignment. Two USTs are identified as 2,000-gallon fiberglass JP-4 tanks and seven USTs are identified as 600-gallon steel waste oil tanks. Six of the nine tanks were installed in 1995, one UST was installed in 1996, and two USTs were installed in 1997. Because these nine USTs were installed after base realignment, they were removed from consideration and are identified as follows:

- Building 1048
- Building 1049-1
- Building 1050, UST No. 1
- Building 1170, USTs Nos. 3 and 4
- Building 1364

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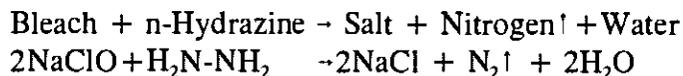
<sup>1</sup> Tracer Tight® tests results on the UST at Building 1060 were obtained from the Navy for the months of July and August 1998 and are included at the end of Table 2.4. There are no prior test results for this UST.

- Building 1403
- Building 1405
- Building 1410

## 2.8 ACTIVE USTs EXEMPT FROM TNRCC REGULATORY REQUIREMENTS

Two USTs were excluded from consideration based on their exemption from TNRCC regulatory requirements. These USTs appear on the Navy's list of USTs as active tanks exempt from regulation. These USTs are described below.

- **Building 1656:** Building 1656, the 301st A/C Maintenance Dock, has a 1,000-gallon fiberglass UST (Figure A.1). Although this tank is designated for the storage of n-hydrazine, personal interviews with Mr. Les Bowers and Mr. Lance Key confirmed that the n-hydrazine is diluted with 2 parts bleach to 1 part n-hydrazine rendering it a solution of salt and water before it is put into the UST. The chemical reaction is illustrated as follows:



Under these circumstances, the UST is not considered a hazardous waste storage tank as stated in a letter to the Navy from the TNRCC.

- **Building 1752:** Building 1752, the Simulator, has a 550-gallon steel waste oil UST. The installation date of this tank is unknown. In a telephone conversation with HydroGeoLogic on April 17, 1998, Mr. Bowers stated that this UST was used as an overflow tank. When the tank was used, the contents would be removed with a pump truck within 24 hours. Under these circumstances, the tank was exempt from monthly monitoring.

TNRCC records show that there have been no reports of release from the USTs described above. In addition, neither UST is included on the TNRCC inventory list of regulated tanks.

## 2.9 SUMMARY

A total of 132 USTs, which are presented in Table 1.1, above, were identified by cross-referencing an existing UST list with Air Force, Navy, and TNRCC records. As described above, a total of 112 USTs were eliminated from further consideration under the Air Force DERA program. The remaining 20 USTs require additional investigation before closure can occur. These USTs are summarized in Table 2.5.

**Table 2.1**  
**Active Underground Storage Tanks Passing Tracer Tight® Tests - 1994**  
**NAS Fort Worth JRB, Texas**

| Building No. | Tracer Tight® Test Results |        |        |        |        |        |        |        |        |        |        |        |
|--------------|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|              | Jan-94                     | Feb-94 | Mar-94 | Apr-94 | May-94 | Jun-94 | Jul-94 | Aug-94 | Sep-94 | Oct-94 | Nov-94 | Dec-94 |
| 1191-2       | Pass                       | Fail   | NA     | Pass   |
| 1194-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1420-2       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1628-4       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1655         | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | NA     | NA     | NA     | NA     | NA     |
| 3190         | NA                         | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | NA     | Pass   |
| 4111-1       | NA                         | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4127-1       | NA                         | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4136-2       | NA                         | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4141-1       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | NA     | Pass   |
| 4143         | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4145-1       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | NA     | Pass   |
| 4155-1       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4171-1       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | NA     | Pass   | Pass   |
| 4205         | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4210-4       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4210-6       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4215-1       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | Pass   | NA     | Pass   |
| 4216-1       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | Pass   | Pass   | NA     | Pass   | Pass   |

NA = Not Applicable  
 Pass = Passed Tracer Tight® test  
 Fail = Failed Tracer Tight® test  
 Alarm I = Injected aerosol detected by soil gas probes; site investigation subsequently conducted  
 Alarm II = Site investigation revealed a potential problem; Tracer Tight® test subsequently conducted  
 Source: Prepared for Unified Services of Texas, Inc.

**Table 2.2**  
**Active Underground Storage Tanks Passing Tracer Tight® Tests - 1995**  
**NAS Fort Worth JRB, Texas**

| Building No. | Tracer Tight® Test Results |        |        |        |        |        |        |        |        |        |         |          |
|--------------|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|----------|
|              | Jan-95                     | Feb-95 | Mar-95 | Apr-95 | May-95 | Jun-95 | Jul-95 | Aug-95 | Sep-95 | Oct-95 | Nov-95  | Dec-95   |
| 1064-1b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1064-2b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1064-3b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1064-4b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1145-1       | NA                         | NA     | Pass    | Pass     |
| 1191-2       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1194-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1420-2       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1423-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1425-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1628-4       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 1655         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 3190         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 3359-1       | NA                         | NA     | NA     | NA     | Pass    | Pass     |
| 3360-1       | NA                         | NA     | NA     | NA     | Pass   | Pass   | NA     | Pass   | Pass   | Pass   | Pass    | Pass     |
| 4111-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 4127-1       | Pass                       | Pass   | Pass   | Fail   | Pass    | Pass     |
| 4136-2       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 4141-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 4143         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 4145-1       | NA                         | Pass    | Pass     |
| 4155-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 4171-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Alarm I | Alarm II |
| 4205         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 4210-4       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |
| 4210-6       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass     |

Table 2.2 (continued)  
Active Underground Storage Tanks Passing Tracer Tight® Tests - 1995  
NAS Fort Worth JRB, Texas

| Building No. | Tracer Tight® Test Results |        |        |        |        |        |        |        |        |        |        |        |
|--------------|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|              | Jan-95                     | Feb-95 | Mar-95 | Apr-95 | May-95 | Jun-95 | Jul-95 | Aug-95 | Sep-95 | Oct-95 | Nov-95 | Dec-95 |
| 4215-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4216-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |

NA = Not Applicable  
 Pass = Passed Tracer Tight® test  
 Fail = Failed Tracer Tight® test  
 Alarm I = Injected aerosol detected by soil gas probes; site investigation subsequently conducted  
 Alarm II = Site investigation revealed a potential problem; Tracer Tight® test subsequently conducted  
 Source: Prepared for Unified Services of Texas, Inc.

**Table 2.3**  
**Active Underground Storage Tanks Passing Tracer Tight® Tests - 1996**  
**NAS Fort Worth JRB, Texas**

| Building No. | Tracer Tight® Test Results |        |        |        |        |        |        |        |        |        |        |        |
|--------------|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|              | Jan-96                     | Feb-96 | Mar-96 | Apr-96 | May-96 | Jun-96 | Jul-96 | Aug-96 | Sep-96 | Oct-96 | Nov-96 | Dec-96 |
| 1064-1b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1064-2b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1064-3b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1064-4b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1145-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1191-2       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1194-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1420-2       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1423-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1425-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1628-4       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 1655         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 3190         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 3359-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 3360-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4111-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4127-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4136-2       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4141-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4143         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4145-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4155-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4171-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4205         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4210-4       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4210-6       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |
| 4215-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |

Table 2.3 (continued)  
 Active Underground Storage Tanks Passing Tracer Tight® Tests - 1996  
 NAS Fort Worth JRB, Texas

| Building No. | Tracer Tight® Test Results |        |        |        |        |        |        |        |        |        |        |        |
|--------------|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|              | Jan-96                     | Feb-96 | Mar-96 | Apr-96 | May-96 | Jun-96 | Jul-96 | Aug-96 | Sep-96 | Oct-96 | Nov-96 | Dec-96 |
| 4216-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   |

NA = Not Applicable  
 Pass = Passed Tracer Tight® test  
 Fail = Failed Tracer Tight® test  
 Source: Prepared for Unified Services of Texas, Inc.

**Table 2.4**  
**Active Underground Storage Tanks Passing Tracer Tight® Tests - 1997, 1998**  
**NAS Fort Worth JRB, Texas**

| Building No. | Tracer Tight® Test Results |        |        |        |        |        |        |        |         |        |        |        |
|--------------|----------------------------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|
|              | Jan-97                     | Feb-97 | Mar-97 | Apr-97 | May-97 | Jun-97 | Jul-97 | Aug-97 | Sep-97  | Oct-97 | Nov-97 | Dec-97 |
| 1064-1b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 1064-2b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 1064-3b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 1064-4b      | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 1145-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 1191-2       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | NA     | NA      | NA     | NA     | NA     |
| 1194-1       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | NA     | NA      | NA     | NA     | NA     |
| 1420-2       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 1423-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 1425-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Alarm I | Pass   | Pass   | Pass   |
| 1628-4       | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | NA     | NA      | NA     | NA     | NA     |
| 1655         | NA                         | NA     | NA     | NA     | NA     | NA     | NA     | NA     | NA      | NA     | NA     | NA     |
| 3190         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 3359-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 3360-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4111-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4127-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4136-2       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4141-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4143         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4145-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4155-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4171-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4205         | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4210-4       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4210-6       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |
| 4215-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass   | Pass    | Pass   | Pass   | Pass   |

**Table 2.4 (continued)**  
**Active Underground Storage Tanks Passing Tracer Tight® Tests - 1997, 1998**  
**NAS Fort Worth JRB, Texas**

| Building No. | Tracer Tight® Test Results |        |        |        |        |         |         |        |        |    |
|--------------|----------------------------|--------|--------|--------|--------|---------|---------|--------|--------|----|
|              | Jan-97                     | Feb-97 | Mar-97 | Apr-97 | May-97 | Jun-97  | Jul-97  | Aug-97 | Sep-97 |    |
| 4216-1       | Pass                       | Pass   | Pass   | Pass   | Pass   | Pass    | Pass    | NA     | Pass   |    |
| Building No. | Tracer Tight® Test Results |        |        |        |        |         |         |        |        |    |
|              | Jan-98                     | Feb-98 | Mar-98 | Apr-98 | May-98 | June-98 | July-98 | Aug-98 | Sep-98 |    |
| 1060         | NA                         | NA     | NA     | NA     | NA     | NA      | Pass    | Pass   | NA     | NA |

NA = Not Applicable  
 Pass = Passed Tracer Tight® test  
 Fail = Failed Tracer Tight® test  
 Alarm I = Injected aerosol detected by soil gas probes; site investigation subsequently conducted  
 Alarm II = Site investigation revealed a potential problem; Tracer Tight® test subsequently conducted  
 Source: Prepared for Unified Services of Texas, Inc.

Table 2.5  
Underground Storage Tanks Requiring Further Action  
NAS Fort Worth JRB, Texas

| Building No. | Location                       | Capacity (gallons) | Tank Type  | Contents  | Installed | Removed        |
|--------------|--------------------------------|--------------------|------------|-----------|-----------|----------------|
| 1040-1       | Water-Fire Pump                | 400                | Steel      | Diesel    | 1955      | June 1994      |
| 1140-1       | Old Hobby Shop                 | 400                | Steel      | Waste Oil | Unknown   | September 1989 |
| 1140-2       | Old Hobby Shop                 | 550                | Steel      | Waste Oil | Unknown   | September 1989 |
| 1191-1       | Vehicle Maint. Shop            | 500                | Steel      | Waste Oil | 1983      | October 1993   |
| 1411-1       | AGE Refueling                  | 2,000              | Steel      | Jet Fuel  | 1963      | March 1996     |
| 1411-2       | AGE Refueling                  | 2,000              | Steel      | Diesel    | 1963      | March 1996     |
| 1411-3       | AGE Refueling                  | 2,000              | Steel      | Gasoline  | 1963      | March 1996     |
| 1427-1       | Rapcon Support                 | 1,000              | Steel      | Diesel    | 1976      | November 1990  |
| 1518-5       | AAFES Service Station          | 600                | Fiberglass | Waste Oil | 1970      | March 1996     |
| 1658-1       | Electric Power Generator Plant | 275                | Unknown    | Diesel    | Unknown   | October 1990   |
| 1750-1       | Comm. Relay Station            | 8,000              | Fiberglass | Diesel    | 1986      | May 1996       |
| 1750-2       | Comm. Relay Station            | 20,000             | Steel      | Diesel    | 1957      | Abandoned      |
| 4210-1       | Missile Assembly Shop          | 8,000              | Fiberglass | JP-10     | 1985      | April 1996     |
| 4210-2       | Missile Assembly Shop          | 8,000              | Fiberglass | JP-10     | 1985      | April 1996     |
| 4210-3       | Missile Assembly Shop          | 8,000              | Fiberglass | JP-10     | 1985      | April 1996     |
| 4210-5       | Missile Assembly Shop          | 2,000              | Fiberglass | JP-10     | 1985      | April 1996     |
| 4115-1       | Old GCA Site DEG               | 600                | Steel      | Diesel    | 1968      | January 1991   |
| 4136-1       | TACAN Station DEG              | 100                | Steel      | Diesel    | 1980      | January 1991   |
| GCA-1        | Unknown                        | Unknown            | Unknown    | Jet Fuel  | Unknown   | Abandoned      |
| GCA-2        | Unknown                        | Unknown            | Unknown    | Gasoline  | Unknown   | Abandoned      |

Sources: CH2M Hill, "Site Characterization Summary Informal Technical Information Report," November 1996.  
TNRCC Petroleum Storage Tanks Detail Listing, January 23, 1997.

Navy Environmental Office UST list and interview with Mr. Les Bowers of the Navy Environmental Office, February 19, 1998.

### 3.0 USTs REQUIRING FURTHER ACTION

The following sections separate the remaining 20 USTs into groups based on the requirements for transferring the regulatory responsibility for installation restoration to NAS Fort Worth or to request an NFA determination from the TNRCC. These USTs have been divided into four general categories: (1) USTs removed without documentation requiring site investigation; (2) USTs requiring additional sampling to complete site characterization; (3) USTs characterized and pending review by TNRCC for NFA; and (4) USTs identified by the TNRCC without a location.

Appendix A contains a figure for each UST site that may require a soil and/or groundwater investigation. The figures show the approximate location of each UST in relation to the associated building. There are no figures for GCA-1 and GCA-2, as their locations are undetermined.

#### 3.1 USTs REMOVED WITHOUT DOCUMENTATION REQUIRING SITE CHARACTERIZATION

A total of four USTs were removed from four different sites by an unknown contractor. One UST was removed at each of the following buildings: Building 1040; Building 1191, UST No. 1; Building 4115; and Building 4136. No reports describing the removal, excavation, or analytical sampling results could be located. In addition, a TNRCC records search conducted by the Navy determined that a closure report had not been submitted. Work Plans will be prepared detailing an investigation to be conducted at each UST site, as conditions dictate, in accordance with the TNRCC LPST program to determine if closure can be requested from the TNRCC without further monitoring or remediation. The details of the four USTs include the following:

- **Building 1040:** Building 1040, the water-fire pump facility, had a 400-gallon steel UST used for storing diesel fuel (Figure A.1). The UST was installed in 1955 and removed in June 1994. A site visit by HydroGeoLogic and Navy personnel identified hardware on the building typically associated with a UST vent pipe and a nearby monitoring well.
- **Building 1191, UST No. 1:** Building 1191, the vehicle maintenance shop, had a 500-gallon steel UST used for storing waste oil (Figure A.2). The UST was installed in 1983 and removed in October 1993. As-built drawings did not show the location of the tank, but a site visit identified a monitoring well associated with patched concrete, indicating the location of the former UST excavation.
- **Building 4115:** Building 4115, the former ground control approach (GCA) site diesel electric generator (DEG), had a 600-gallon steel UST for storing diesel fuel (Figure A.3). The tank was installed in 1968 and removed in January 1991. After reviewing as-built drawings, and conducting a site visit to the remaining foundation with Navy personnel, HydroGeoLogic identified the approximate area where the UST was located.
- **Building 4136:** Building 4136, the tactical air navigation (TACAN) station DEG, had a 100-gallon UST for storing diesel fuel (Figure A.4). The UST was installed

in 1980 and was removed in January 1991. After reviewing as-built drawings and conducting a site visit to the current TACAN site, which was built in the same location, HydroGeoLogic identified the approximate area where the UST was located.

### 3.2 USTs REQUIRING ADDITIONAL SAMPLING TO COMPLETE SITE CHARACTERIZATION

Six former USTs at four sites require additional sampling for site characterization. These USTs include Building 1411, USTs Nos. 1, 2 and 3; Building 1427; and Building 1750, USTs Nos. 1 and 2. Analytical sampling results were located for one UST removal site contracted to Eagle Construction and Environmental Services, Inc. (Eagle), but no report was completed documenting the sampling effort. Two of the UST removal sites were contracted to Jacobs Engineering Group, Inc. (Jacobs). Although Jacobs documentation of the removal activities appears complete, analytical results from the above-listed UST removals indicate a need for additional soil and/or groundwater samples. An investigation will be conducted at each UST site, as conditions dictate, in accordance with the TNRCC LPST program to determine if closure can be requested from the TNRCC without further monitoring or remediation.

- **Building 1411, USTs Nos. 1, 2 and 3:** Building 1411 (Figure A.5), the AGE refueling facility, had three 2,000-gallon steel USTs for storing jet fuel, diesel fuel, and gasoline. The USTs were installed in 1963 and removed in April 1996 by Jacobs. The final removal report, entitled "Removal/Upgrade of Underground Storage Tanks, Technical Report, Volumes I, II, and III", March 1997, indicated TPH in several soil samples from the bottom and sidewalls of the excavation in concentrations above the TNRCC action levels.

The gasoline UST excavation measured 15 feet long by 13 feet wide and was 11 feet deep. The final excavation for the remaining USTs measured approximately 43 feet long by 19 feet wide and was between 10 and 13.2 feet deep. The area currently is covered with a thick layer of concrete. The results of the previous sampling indicate that the site may require a "Plan A" site assessment, as outlined in "Risk-Based Corrective Action for Leaking Petroleum Storage Tank Sites," TNRCC Publication RG-36, January 1994. However, quarterly groundwater monitoring will be proposed for this site due to the small size of the excavation and the presence of the thick concrete cover. Groundwater samples will be collected for site characterization from existing wells.

- **Building 1427:** Building 1427, the rapcon support facility, had a 1,000-gallon steel UST for storing diesel fuel (Figure A.6). The UST was installed in 1976 and removed in November 1990 by Eagle. According to analytical results from soil samples taken from this site, TPH was detected in both a sample collected from the base of the excavation and a groundwater sample at concentrations above TNRCC action levels. As-built drawings accurately located the location of the former UST, and a monitoring well was discovered near the site.

- **Building 1750, USTs Nos. 1 and 2:** Two USTs were utilized at the communication relay station, Building 1750. UST No. 1750-1 was an 8,000-gallon fiberglass tank, and No. 1750-2 was a 20,000-gallon steel tank.<sup>2</sup> Both USTs were located on the northwest side of Building 1750 and were used to store diesel fuel (Figure A.7). UST No. 1750-1 was installed in 1986 and was removed from service in May 1996. UST No. 1750-2 was installed in 1957 and was abandoned in-place in September 1992. During the May 1996 excavation of 1750-1, the abandoned tank No. 1750-2 was observed in the wall of the excavation. Tank No. 1750-2, as reported, was filled with concrete and left in place when Jacobs backfilled the excavation. During removal of Tank No. 1750-1, an associated pipeline was broken and fuel spilled into the excavation. Analytical results indicate one sample slightly above TNRCC action levels. The number of samples collected was not adequate for closure. Building 1750 and the associated structures no longer exist.

### 3.3 USTS CHARACTERIZED AND PENDING SUBMITTAL TO THE TNRCC AS NFA SITES

Eight former USTs at four UST sites, Building 1140, USTs Nos. 1 and 2; Building 4210, USTs Nos. 1, 2, 3, and 5; Building 1518, UST No. 5; and Building 1658 were characterized during tank removal activities. Closure reports were not submitted to the TNRCC for any of these sites. Closure of these sites will be requested in accordance with the TNRCC LPST program without collecting additional samples.

- **Building 1140, USTs Nos. 1 and 2:** Building 1140, the old hobby shop, had one 400-gallon steel UST (1140-1) and one 550-gallon steel UST (1140-2) for storing waste oil (Figure A.8). It is not known when the USTs were installed, but they were removed in September 1989 when UST 1140-1 was punctured during construction activities. LPST No. 093351 was assigned to this site by the TNRCC. Initial analytical results of soil samples collected from the floor of the excavation indicated that total petroleum hydrocarbons (TPH) concentrations were above TNRCC action levels. Based on the results of the initial analytical results, action was taken to excavate all contaminated soils until TPH concentrations tested below the TNRCC action levels. An on-line inquiry of the TNRCC database indicated that groundwater was not impacted and that there was no apparent threat or impact to receptors.
- **Building 4210, USTs Nos. 1, 2, 3, and 5:** Building 4210, the missile assembly shop, had three 8,000-gallon and one 2,000-gallon fiberglass USTs for storing JP-10 (Figure A.9). The USTs were installed in 1985 and removed by Jacobs in April 1996. The resulting excavation measured 45 feet long by 40 feet wide and 21 feet deep.

<sup>2</sup> The Jacobs report identifies the 20,000-gallon UST as Tank No. 1750-1. The TNRCC identified this UST as No. 1750-2. The 20,000-gallon UST will be referred to as No. 1750-2 in this document.

Analytical results from samples taken during removal activities were below TNRCC action levels for the constituents of jet fuel. Some metals were detected in the samples above background levels, including beryllium (1.08 milligrams per kilogram (mg/kg)), calcium (237,000 mg/kg), selenium (1.43 mg/kg), and vanadium (119 mg/kg); however, these metals are not generally associated with JP-10 contamination.

- **Building 1518, UST No. 5:** Building 1518, the AAFES service station, a 600-gallon fiberglass UST for storing waste oil. The tank was installed in 1970 at the southwest corner of the site and removed by Jacobs in March 1996 (Figure A.10). The resulting excavation measured 14 feet long, 8 feet wide, and 6 feet deep. Analytical results from the soil and groundwater samples detected calcium and arsenic above the background values established for NAS Fort Worth JRB (Jacobs, 1997).
- **Building 1658:** Building 1658, the electric power generator plant, had a 275-gallon UST for storing diesel fuel (Figure A.11). The UST installation date is unknown; however, it was removed in October 1990 by Eagle. An adequate number of samples was collected for closure as required by the TNRCC.

### 3.4 USTs IDENTIFIED BY THE TNRCC WITHOUT A LOCATION

Two USTs were identified by the TNRCC Petroleum Storage Tanks Summary Listing as GCA-1 and GCA-2. There was no information on the TNRCC list regarding the tanks except that they contained jet fuel (GCA-1) and gasoline (GCA-2) and that they were abandoned on an unknown date. Interviews with Navy personnel indicated that any USTs associated with the GCA site would be small and near a backup generator located at either end of the runway. Navy personnel questioned the existence of these two USTs, stating that it would not be typical to abandon a small UST that could be easily removed. In addition, Navy personnel explained that all USTs on a military base are identified with the number of the building they serve, and that the existence of these tanks is questionable due to the lack of a building number and any additional information.

A search of Air Force and Navy records in conjunction with additional personnel interviews did not reveal any additional information concerning these two tanks. A diesel mechanic, who worked at the old GCA site confirmed the existence of the former UST 4115-1, that was removed in January of 1991. He did not believe that there had been any other USTs at the former GCA site.

An investigation of the former GCA site will be conducted in order to determine if the two abandoned USTs exist. A visual inspection will be conducted to identify any surface features generally associated with a UST, such as depressions, stressed or dead vegetation, etc., and the area will be swept using a hand-held magnetometer. If the USTs are not located, they will be designated as non-existent tanks, and a letter will be submitted to the TNRCC outlining the steps taken to reach this determination. If the abandoned USTs are located at the GCA site, then an investigation will be conducted as site conditions dictate. The investigation will be conducted in accordance with the TNRCC LPST program to determine if closure can be requested from the TNRCC without further investigation or remediation.

#### 4.0 REFERENCES

CH2M Hill, *Site Characterization Summary Informal Technical Information Report*, November 1996.

Eagle Construction and Environmental Services, Inc., *Laboratory Analytical Results*.

HydroGeoLogic, Inc., *Final Basewide Quality Assurance Project Plan, NAS Fort Worth JRB, Texas*, February 1998.

HydroGeoLogic, Inc., *Draft Work Plan for the Site Investigation of Area of Concern 4, NAS Fort Worth JRB, Texas*, June 1997.

Jacobs Engineering Group, Inc., *Removal/Upgrade of Underground Storage Tanks*, Technical Report, March 1997.

Navy Environmental Office, *Personal Communication, Mr. Les Bowers*, February 19, 1998.

Parsons Engineering Science, Inc., *Final Remedial Action Plan for the Risk-Based Remediation of Site ST14 (SWMU 68) LPST ID 104819; The Former Base Refueling Area (AOC 7); The French Underdrain System (SWMU 64); and the North Oil Water Separator (SWMU 67).*, Volume I Report, July 1997.

301st Air Reserve Unit, *Personal Communication, Mr. Lance Key*, February 1998.

TNRCC Petroleum Storage Tanks Detail Listing, January 23, 1997.

TNRCC RG-175, *Guidance for Risk-Based Assessment at LPST Sites in Texas*, October 1995.

WC Environmental Group, *Petroleum Storage Tank Removal and Initial Site Assessment*, July 1993.

WC Environmental Group, *Limited Site Assessment Report for UST Facility ID No. 1628*, February 1994.

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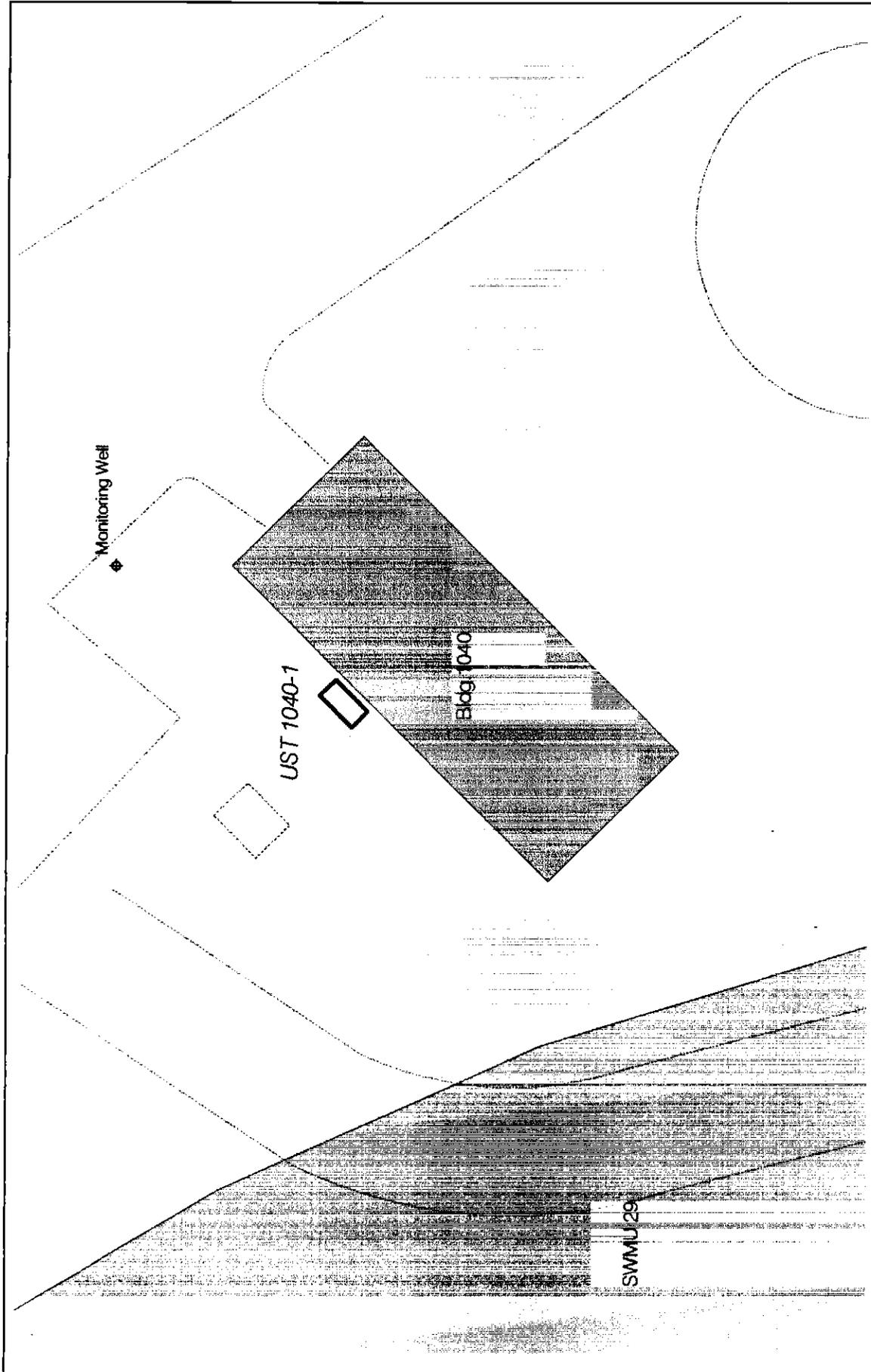
**APPENDIX A**

**FIGURES**

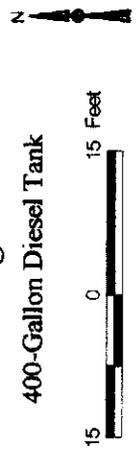
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**Figure A.1**  
**Building 1040**  
 400-Gallon Diesel Tank



**Legend**

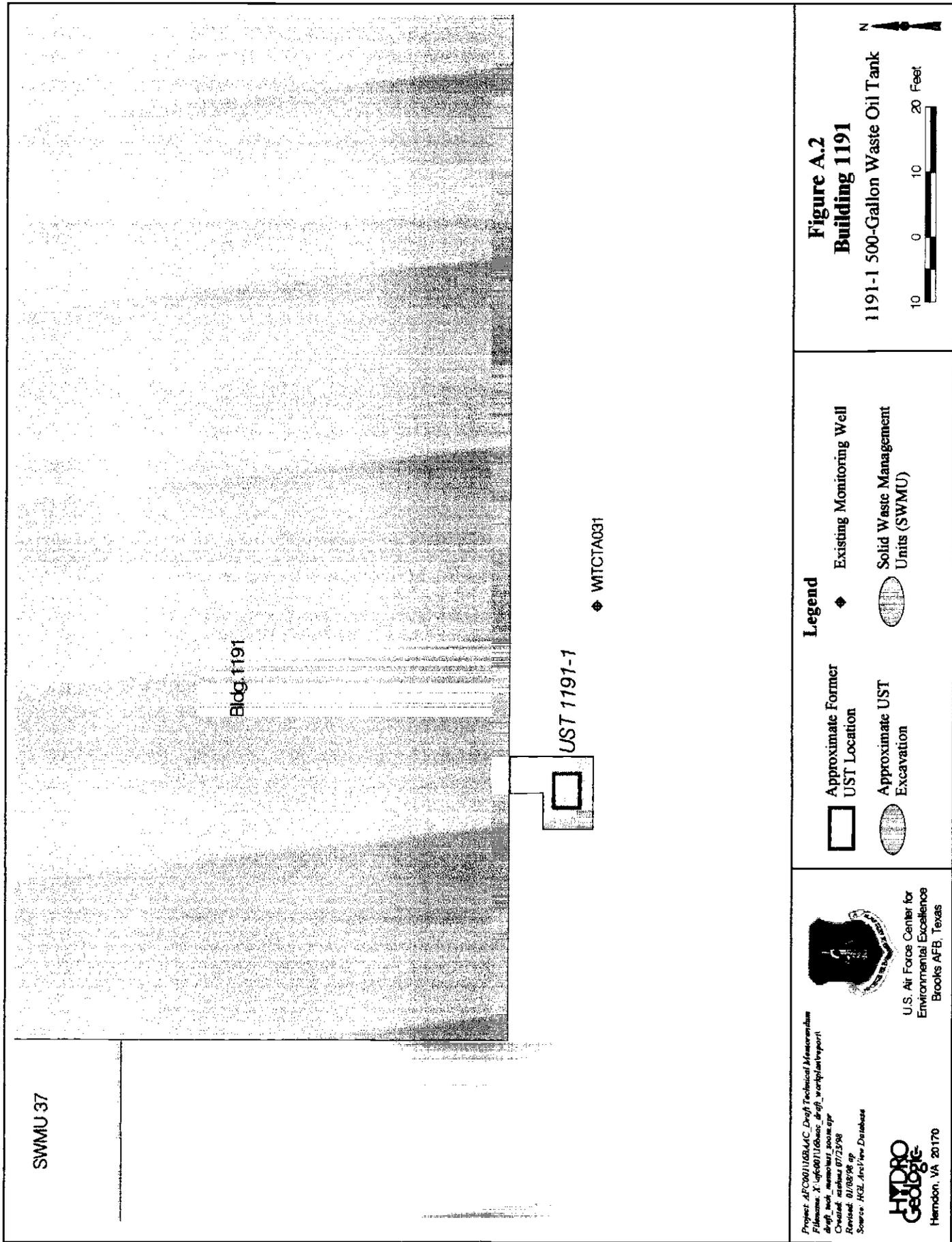
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-  Approximate Former UST Location



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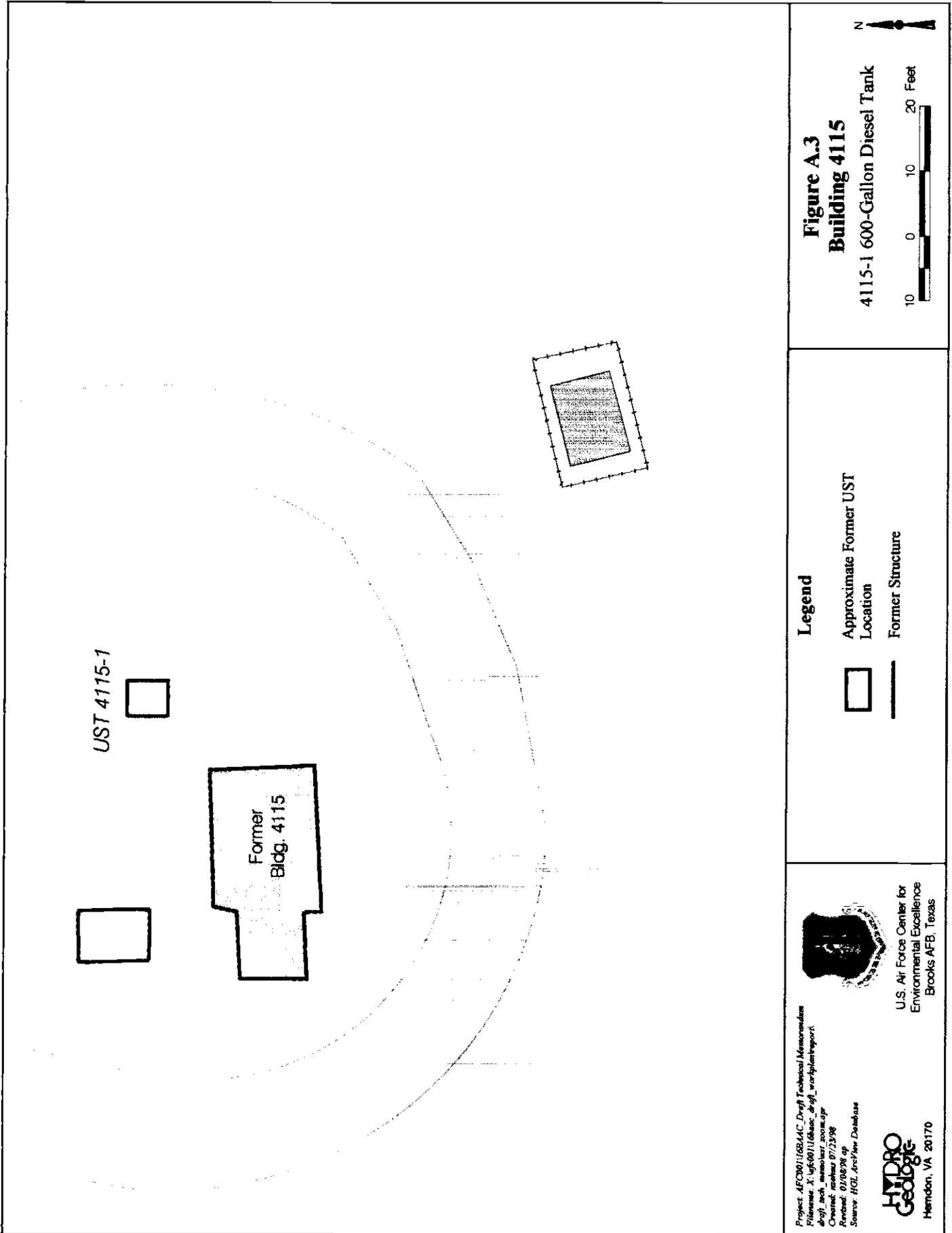
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**Figure A.3**  
**Building 4115**  
4115-1 600-Gallon Diesel Tank

**Legend**

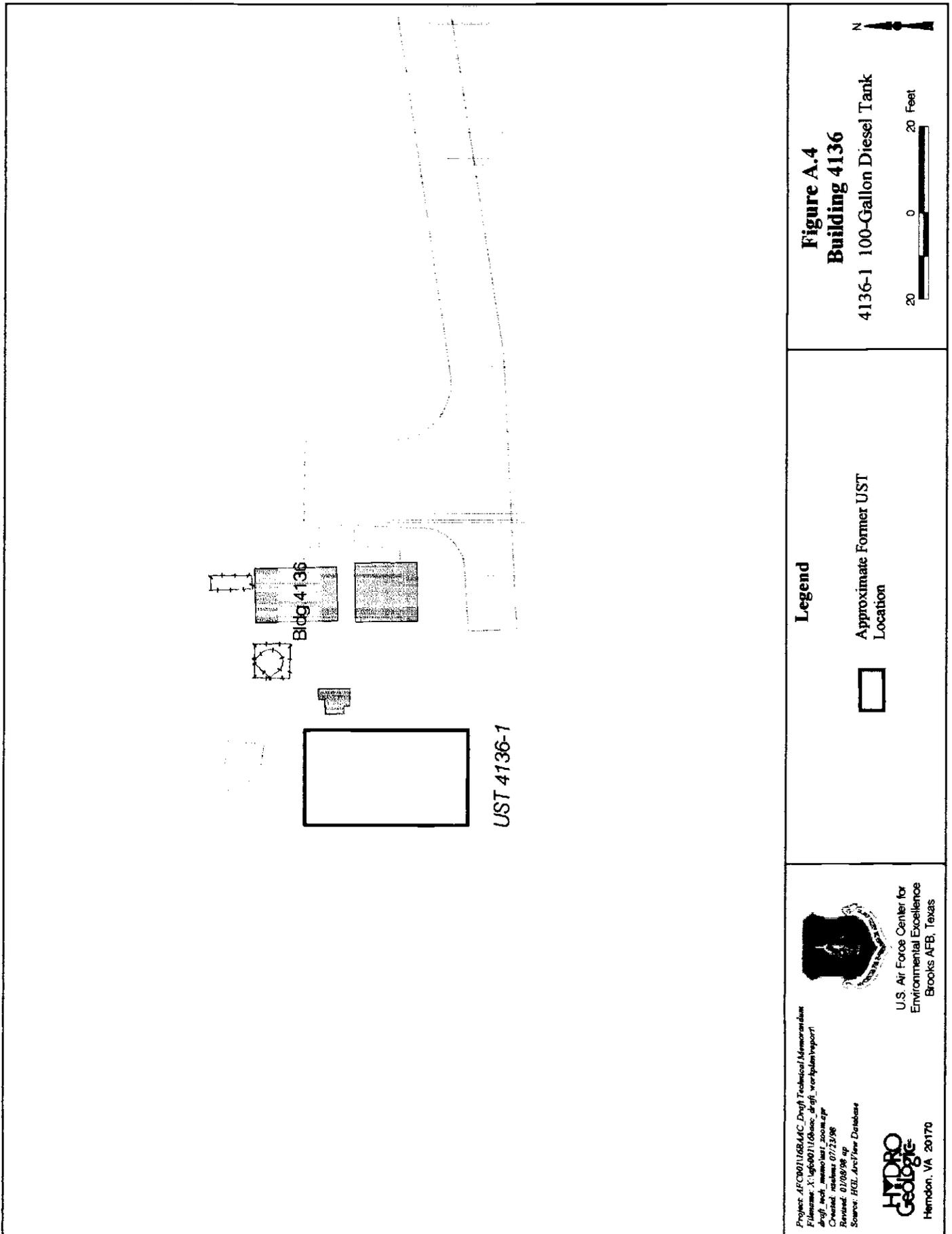
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**Figure A.4**  
**Building 4136**

4136-1 100-Gallon Diesel Tank

**Legend**

Approximate Former UST  
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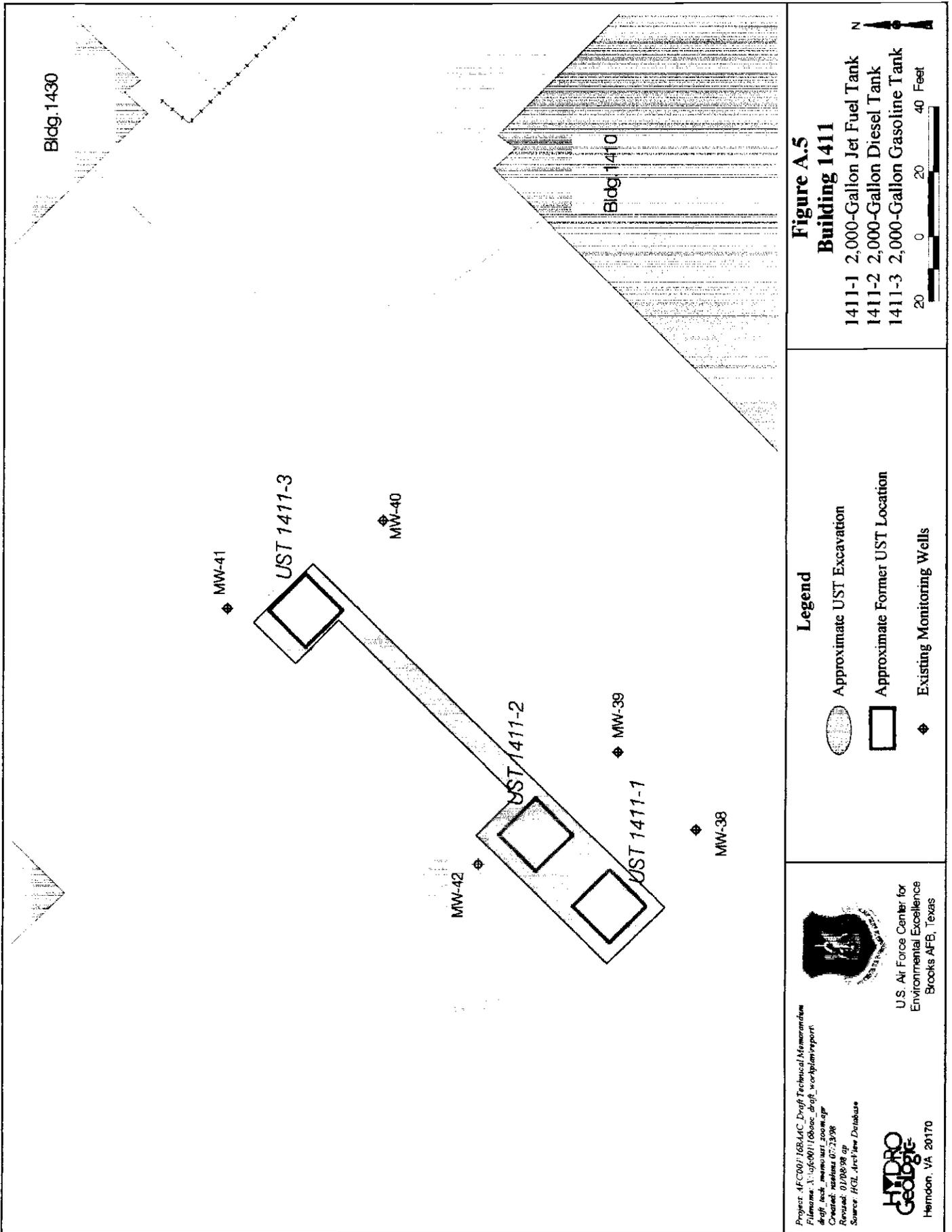


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**Figure A.5**  
**Building 1411**

- 1411-1 2,000-Gallon Jet Fuel Tank
- 1411-2 2,000-Gallon Diesel Tank
- 1411-3 2,000-Gallon Gasoline Tank

**Legend**

- Approximate UST Excavation
- Approximate Former UST Location
- Existing Monitoring Wells

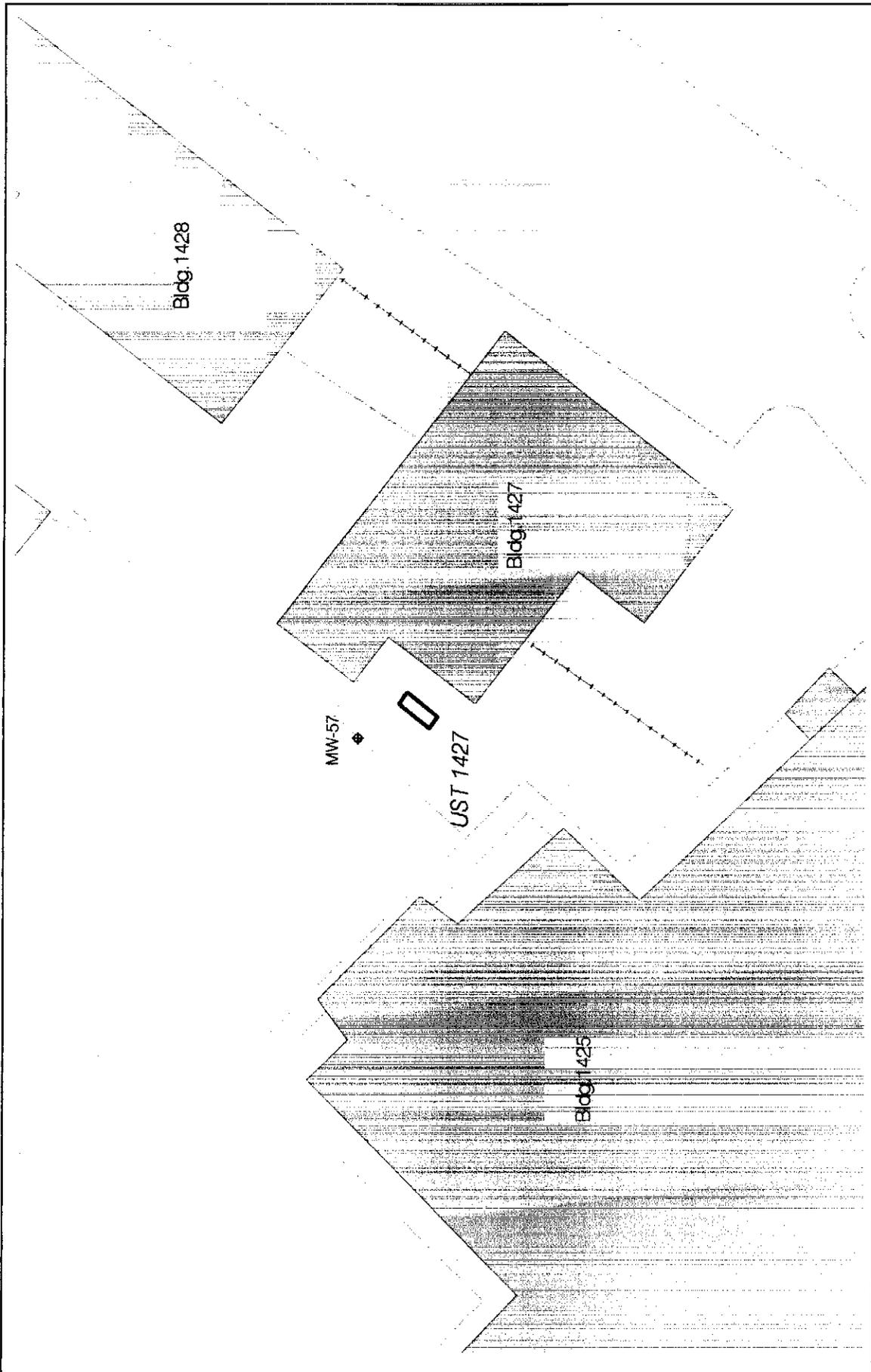


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**Figure A.6**  
**Building 1427**  
 1000-Gallon Diesel Tank

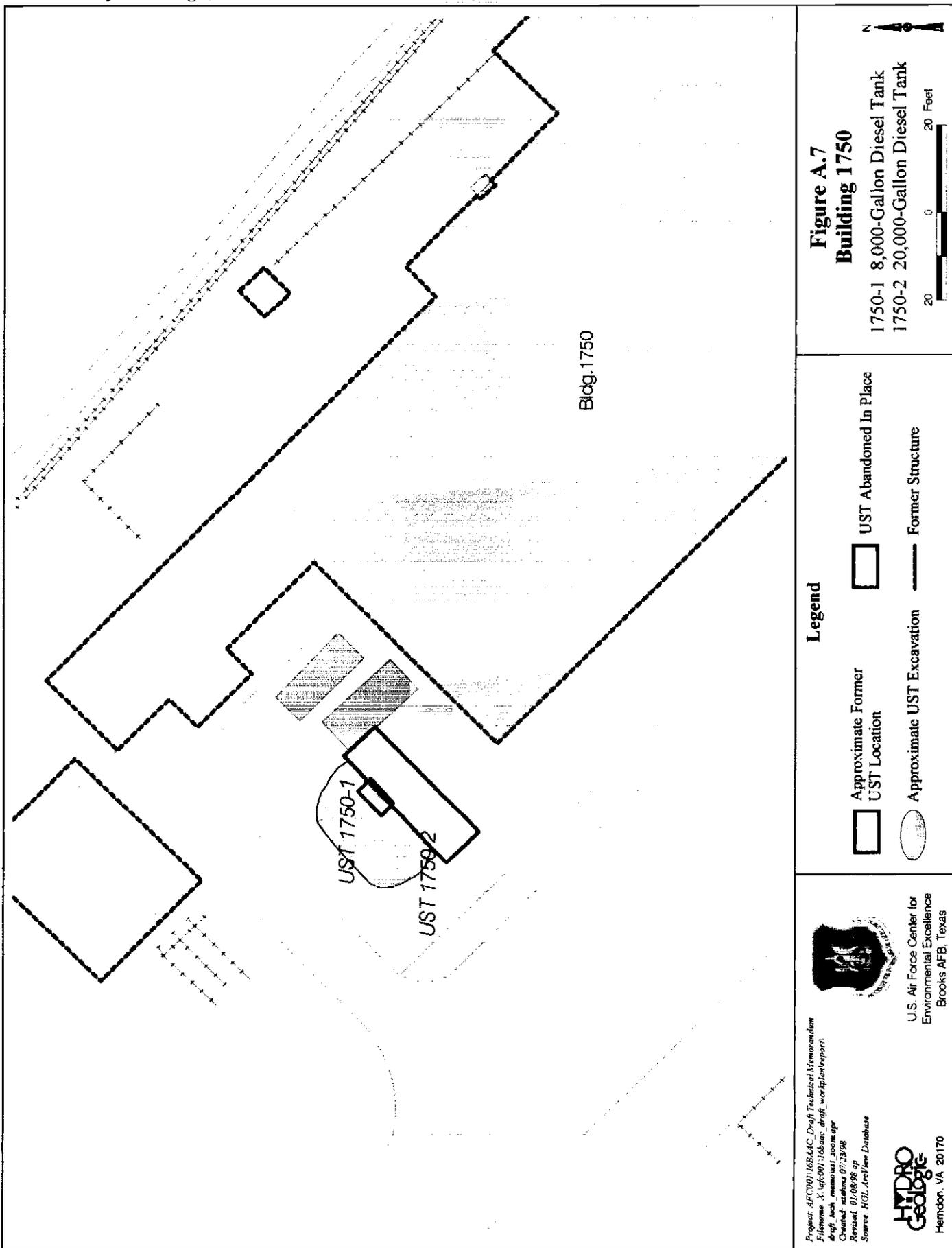
**Legend**

- Approximate Former UST Location
- ◆ Existing Monitoring Wells

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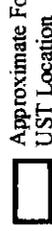
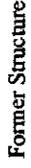
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**Figure A.7**  
**Building 1750**

1750-1 8,000-Gallon Diesel Tank  
1750-2 20,000-Gallon Diesel Tank

**Legend**

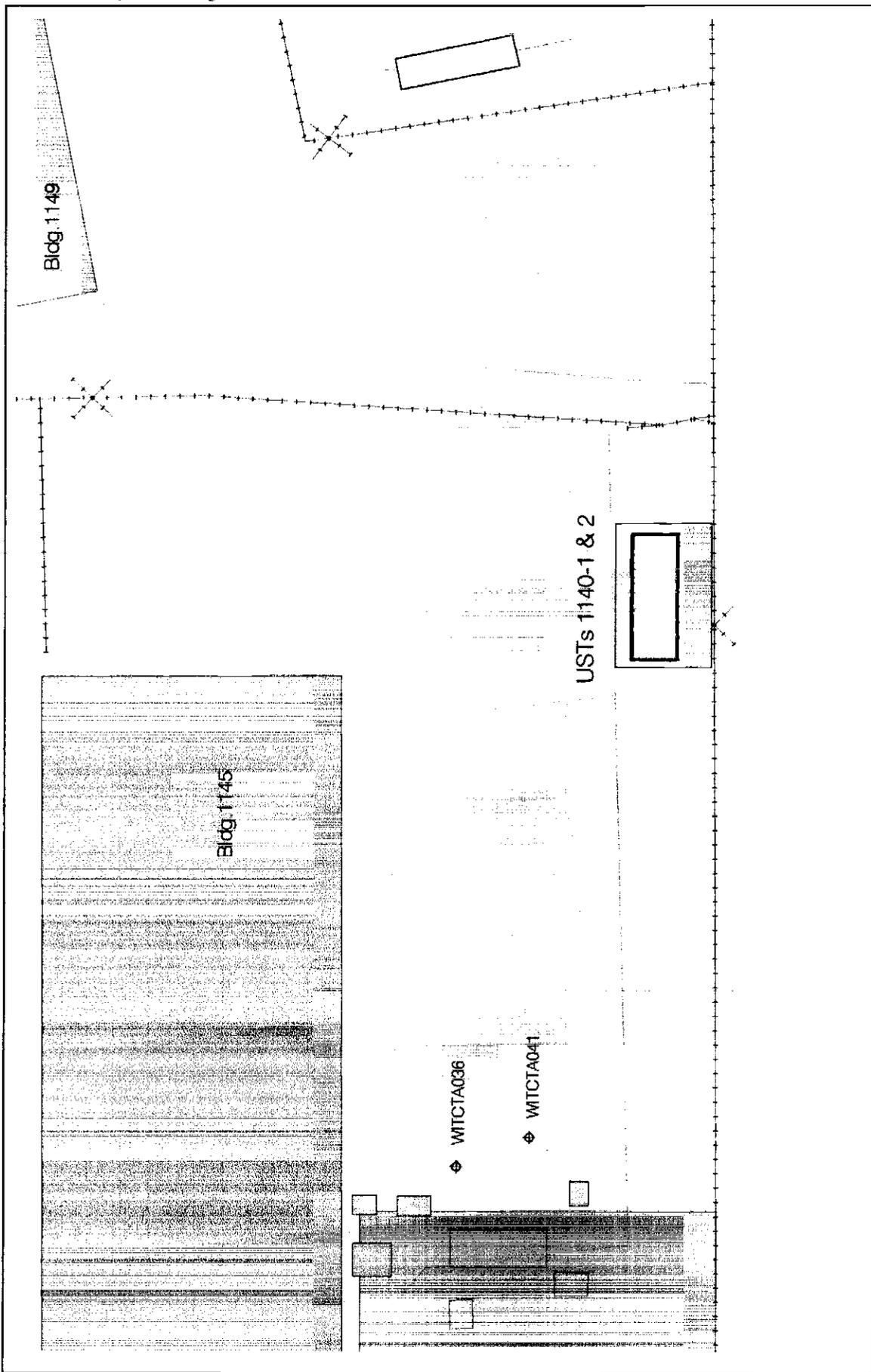
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-  Approximate UST Excavation

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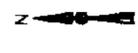
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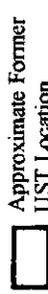
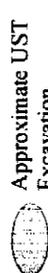
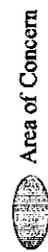


**Figure A.8**  
**Building 1140**

1140-1 400-Gallon Waste Oil Tank  
1140-2 550-Gallon Waste Oil Tank



**Legend**



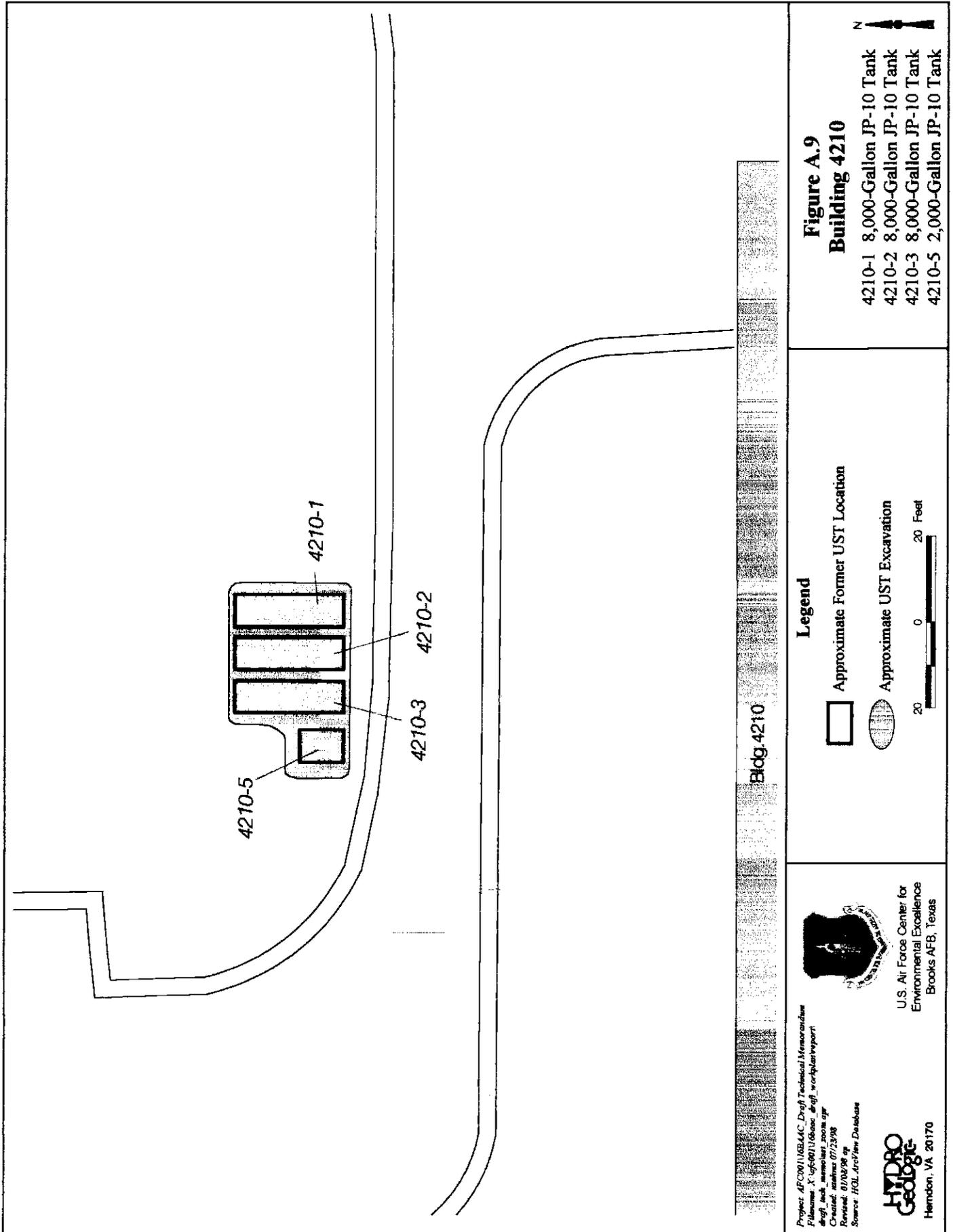
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**Figure A.9**  
**Building 4210**

- 4210-1 8,000-Gallon JP-10 Tank
- 4210-2 8,000-Gallon JP-10 Tank
- 4210-3 8,000-Gallon JP-10 Tank
- 4210-5 2,000-Gallon JP-10 Tank

**Legend**

-  Approximate Former UST Location
  -  Approximate UST Excavation
- 20 0 20 Feet

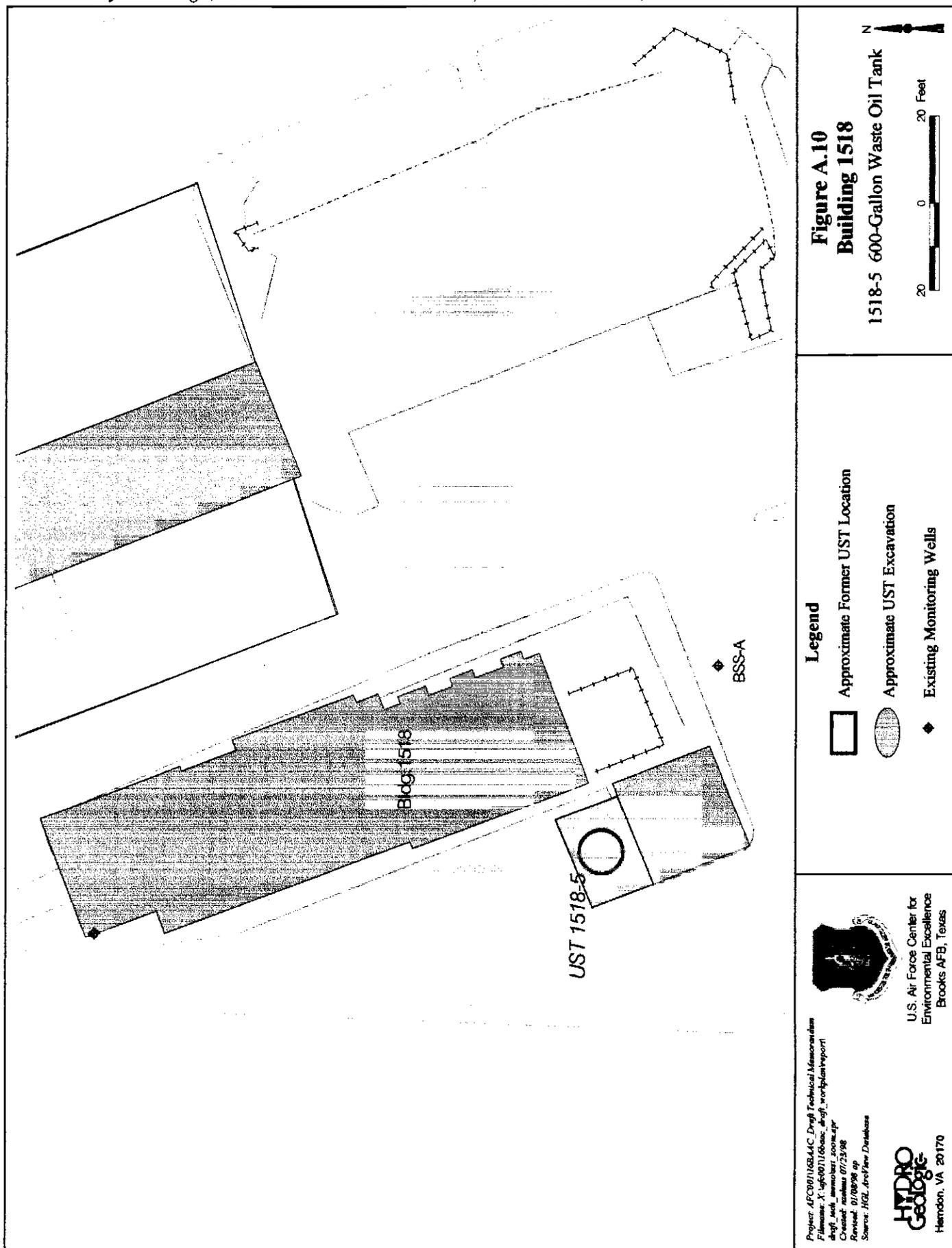


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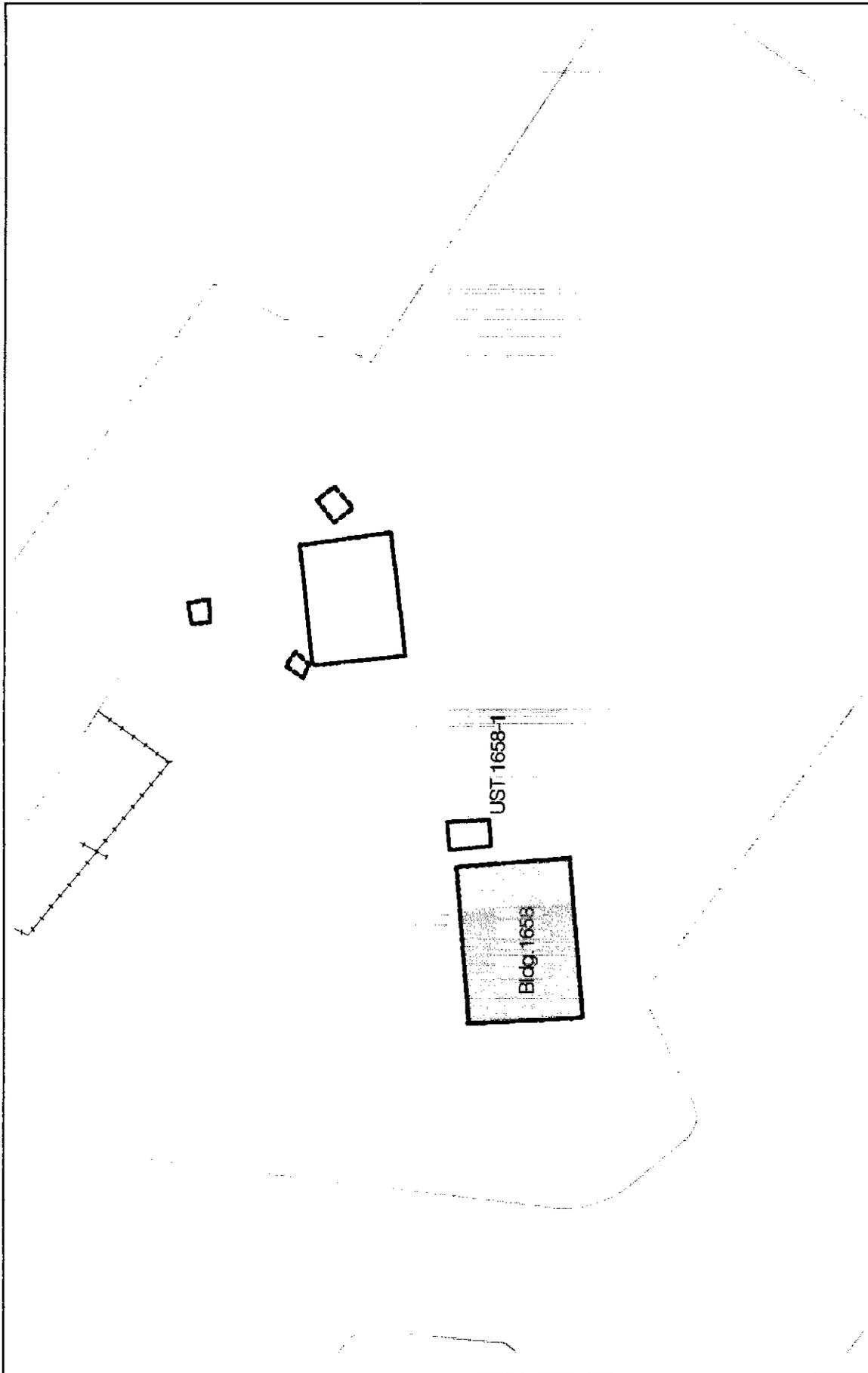
**Figure A.10**  
**Building 1518**  
1518-5 600-Gallon Waste Oil Tank

- Legend**
- Approximate Former UST Location
  - ◐ Approximate UST Excavation
  - ◆ Existing Monitoring Wells



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**Figure A.11**  
**Building 1658**  
 1658-1 275-Gallon Diesel Tank

**Legend**

- Approximate Former UST Location
- ▭ Former Structure



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