



IMA



3d Inf Div (Mech)

**Hazardous Sites Response
Program Notification/Reporting
Form (Installation Wide Groundwater
including TCE Groundwater
Contamination)**

Hunter Army Airfield, Georgia

April 2009

RELEASE NOTIFICATION/REPORTING FORM



Mail to: GEORGIA ENVIRONMENTAL PROTECTION DIVISION
Hazardous Sites Response Program
Suite 1462, Floyd Tower East
2 Martin Luther King Jr. Drive, SE
Atlanta, Georgia 30334-9000

1. The information provided in this form is for:

- ☒ Initial Release Notification
☐ Supplemental Notification

PART I -- PROPERTY INFORMATION

(Please type or print legibly)

2	EPA ID NUMBER (if applicable)	GA4 210 022 733			
3	Tax Map and Parcel ID Number:	Map 2-01655, Block 1, Parcel 1	Acreage		
4	Site or Facility Name	Hunter Army Airfield			
5	Site Street Address	685 Horace Emmet Wilson Blvd. Bldg. 1201			
6	Site City	Savannah	County	Chatham	Zip 31409
7	Property Owner	U.S. Army - 3D Infantry Division and Ft. Stewart			
8	Property Owner Mailing Address	1550 Cochran Drive Bldg. #1137			
9	Property Owner City	Fort Stewart	State	GA	Zip 31314
10	Property Owner Telephone No.	912-315-5148			
11	Site Contact Person	Algeana Stevenson	Title	IRP Manager	
12	Site Contact Company Name	DPW - Prevention and Compliance Branch			
13	Site Contact Mailing Address	1550 Frank Cochran Drive Bldg. #1137			
14	Site Contact City	Ft. Stewart	State	GA	Zip 31314
15	Site Contact Telephone No.	912-315-5148			
16	Facility Operator Contact Person	Tressa Rutland	Title	Acting Env. Division Chief	
17	Facility Operator Company Name	DPW - Prevention and Compliance Branch			
18	Facility Operator Mailing Address	1550 Frank Cochran Drive Bldg. #1137			
19	Facility Operator City	Fort Stewart	State	GA	Zip 31314
20	Facility Operator Telephone No.	912-767-7919			

21. CERTIFICATION --I certify under penalty of law that I am the owner of the real property described in this Release Notification and I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME (Please type or print)

TITLE

SIGNATURE

DATE

PART II -- RELEASE INFORMATION

Page 2 of 5

Please provide the following information for EACH release at the site. If additional space is needed to answer any of the following questions, attach additional pages, as necessary.

- 1. Source of this release (i.e., drums, tanks, spills, wastepile etc.). Provide specific information on the suspected or known source of the release, including the source of this information:**

Trichloroethylene (TCE) and its degradation products were detected during investigation and subsequent monitoring of petroleum hydrocarbon contamination associated with UST 25 and 26 (UST Facility ID #9-025008). Source has not been determined.

- 2. Release date(s) and any known information about the history of the release, including the physical state of the material (solid, powder/ash, liquid/gas, sludge) and the quantity of material released (lbs, cubic yards, etc.):**

Review of analytical data for UST 25 and 26 in 1999 revealed TCE in groundwater. Release scenario or timeframe has not been conclusively determined during subsequent investigations. TCE impacting groundwater would have been released as a liquid. Data has been collected as described below.

- 3. Describe those actions that have been taken to investigate, cleanup or otherwise remediate this release (e.g., removal of source of contamination; soil or water sampling performed; and monitoring wells installed and sampled).**

See ATTACHMENT 1 for a summary of investigation activities performed to date.

- 4. Access to the area affected by the release. Check the appropriate box:**

- ☐ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
☒ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
☐ Unlimited Access: No surveillance, and no barrier or fence.

If the site is inaccessible or has limited access, then describe site surveillance systems, fences, security personnel or other barriers that would restrict access to the release.

Hunter Army Airfield (HAAF) is an active military installation that is fenced and maintains 24-hour security preventing unrestricted access by the general public. There is an on-site resident population at the installation. The known extent of groundwater impacts is contained completely within the installation boundary. The area of the installation with known groundwater impacts is located partially within a fenced motorpool area and partially in an area with unrestricted access.

- 5. For soil releases, indicate the type of material covering this release, by checking the appropriate box below.**

- ☐ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
☐ An engineered and maintained earthen material or compacted fill or a high density synthetic material
☐ Loose earthen fill or native soil
☐ No cover
☒ Other

Describe the type and thickness of the material covering the contaminated soil or wastes.

Specific release area is unknown. Cover in the area with known groundwater impacts consists of asphalt, concrete, fill and/or native soil.

PART II -- RELEASE INFORMATION

(Continued)

Page 3 of 5

6. Indicate the approximate distance from the edge of the area affected by the release to the nearest residence, playground, day care, school or nursing home.

☐ Less than 300 feet
☒ 301 to 1000 feet

☐ 1001 to 3000 feet
☐ 3001 to 5280 feet

☐ Greater than 1 mile

Provide the name and address of the nearest residence, playground, day care, school or nursing home.

Name: Hunter AAF Barracks (estimated based on review of site aerial figures)

Address: Rogers Street

7. Indicate the distance between the area affected by the release and the nearest drinking water well (including wells located on the site).

☐ Less than 0.5 miles
☒ 0.5 to 1 mile

☐ 1 to 2 miles
☐ 2 to 3 miles

☐ Greater than 3 miles

Provide the name of the property owner and address of the location of the closest drinking water well.

Name: Hunter AAF Well DPW2 (see ATTACHMENT 2)

Address: Bldg 1205 on corner of Neal St. and Strachan Rd.

8. Is there any evidence to suspect that a person or a sensitive environment has been exposed to this release?

☐ Yes

☒ No

If yes, provide details on the potentially affected humans or sensitive environments.

REQUIRED ATTACHMENTS

9. SITE SUMMARY

A. Attach a summary (no longer than one page) that gives a general description of the property, the areas affected by the release both within and beyond the property boundaries, and any actions taken to investigate, clean up or otherwise remediate the property. The summary shall include a description of the property boundaries of the site and adjacent properties as well as a detailed description of the nature and known or estimated extent of the area of contamination. Describe any additional relevant information concerning the nature of the release. In addition to the one page summary, other information concerning the property may also be attached.

SEE ATTACHMENT 3

B. Attach a site map that shows known or suspected sources as well as the locations of all samples collected at the site. The site map should include outlines of buildings as well as covered ground areas (e.g., parking lots or other paved areas). A legend should be provided to explain any symbols used on the map.

SEE ATTACHMENT 4

10. U.S.G.S. Topographic Map

Along with this form, you MUST submit an original U.S.G.S. topographical map (1:24000) with the geographic center of the site clearly marked. U.S.G.S. topographic maps are available for purchase on-line at <http://ggsstore.dnr.state.ga.us>.

SEE ATTACHMENT 5

SEE ATTACHED

[illegible]

HAA17 HSI Notification
Part III -- Soil Release Information

Regulated Substance	CAS Registry Number	Highest Concentration Detected between 0-6" (mg/kg)	Highest Concentration Detected between 6-24" (mg/kg)	Highest Concentration Detected greater than 24" (mg/kg)	Qualifier	Sample Location ID	Sample ID	Investigation Area	Sample Date	Sample Depth Interval (ft bgs)
Carbon disulfide	75-15-0	NA	0.0211	NA	J	AT-MW-02	AT0211	Purge Fac	5/10/2006	0
Carbon disulfide	75-15-0	NA	see above	0.00607	J	1290-DPT-19	AU192B	Bldg 1290	1/30/2008	31
Benzene	71-43-2	NA	NA	0.0859	J	AF-09	AF0911	UST25/26	5/4/1999	2
										4

NA - No regulated substances detected above NCs

PART IV -- GROUNDWATER RELEASE INFORMATION

Please provide the following information for EACH regulated substance released to the groundwater at the site and submit the laboratory analytical sheets for all samples analyzed from the site. Use additional sheets if necessary.

[illegible]

HAA17 HSI Notification Part IV -- Groundwater Release Information

Chemical Name	CAS No	Highest Detected Concentration (ug/L)	Qualifier	Sample Location ID	Sample ID	Nominal Investigation Area	Sample Date	Sample Depth Interval (ft bgs)
1,1-Dichloroethane	75-34-3	10.3		AF-51	AF5132	UST 25/26	12/3/2000	15
1,1-Dichloroethane	75-35-4	54.7		1290-MW-16S	AU16111	Bldg 1290	7/19/2007	NA
1,2-Dichloroethane	107-06-2	1.2		AF-72	AF7212	UST 25/26	12/18/2002	2.5
1,2-Dichloroethane	540-59-0	61.3		AF-41	AF41G2	UST 25/26	1/23/2007	28.5
2-Butanone	78-93-3	7.8		AF-77	AF7782	UST 25/26	10/9/2003	46
2-Methylnaphthalene	91-57-6	3.46		AT-MW-05	AT0512	Purge Fac	7/24/2006	2.3
4-Methyl-2-pentanone	108-10-1	1.76	J	AT-MW-04	AT0414	Purge Fac	7/24/2006	2.3
Acetone	67-64-1	8630	DJ	AF-62	AF6212	UST 25/26	3/10/2001	3
Barium	7440-39-3	60.3		AT-MW-03	AT0312	Purge Fac	7/24/2006	2.2
Benzene	71-43-2	16.4		AF-40	AF07G2	UST 25/26	7/25/2007	28.5
Chloroform	67-66-3	4.7		AF-57	AF5714	UST 25/26	3/9/2001	57.8
Chromium	7440-47-3	16.1		AT-MW-01	AT0112	Purge Fac	7/23/2006	40.3
Ethylbenzene	100-41-4	12.4		AF-40	AF07G2	UST 25/26	1/23/2007	28.5
Naphthalene	91-20-3	2.15		AT-MW-5	AT0512	Purge Fac	7/24/2006	2.3
Trichloroethene	79-01-6	373	J	AF-68	AF68G2	UST 25/26	1/23/2007	34.5
Vinyl chloride	75-01-4	27.3		1290-MW-16S	AU16111	Bldg 1290	7/19/2007	NA
Xylenes (total)	1330-20-7	14.6		AT-MW-4	AT0412	Purge Fac	7/24/2006	2.3

Note:

J : estimated result value
D : dilution result value
B : blank contamination
NA: Not Available

ATTACHMENT 1

Part II Release Information

Question #3 Investigation Activities Conducted to Date

ATTACHMENT 1

Part II Release Information

Question #3: Investigation Activities Conducted To Date

As described in the USTs 25 & 26 CAP Part B Report (SAIC, February 2000), a CAP-Part B Site Investigation was conducted to delineate the dissolved benzene contamination plume associated with UST 25 and 26. Groundwater samples were collected for geochemical analysis from 32 monitoring wells, 5 vertical profile borings, and 2 soil borings. Upon review of the analytical data collected in May 1999 and the tentative identification of TCE in several samples, borings AF-30 through AF-39 were installed in September/October 1999 to determine the vertical and horizontal extent of the dissolved benzene contamination plume and to investigate the presence of TCE contamination in the vicinity of the site. The CAP-Part B documented the presence of trichloroethene (TCE) in groundwater. The source and extent of the TCE contamination was not determined during the CAP-Part B investigation. The groundwater Monitoring Only Plan proposed in the CAP-Part B Report for UST 25/26 recommended semiannual monitoring of the shallow BTEX contamination and deep TCE contamination. Three deep wells were installed in February 2000. A nonintrusive investigation using geophysical instrumentation was conducted in September 2000. Ten vertical-profile borings and ten monitoring wells were installed in December 2000 and January 2001, respectively, to investigate the extent of the TCE plume. The monitoring wells were sampled in March 2001. A CAP Part B Addendum 1 was being submitted to the Georgia Environmental Protection Division (GA EPD) Underground Storage Tank Management Program to document the results of the supplemental investigation (i.e., February 2000 through March 2001) of the chlorinated solvent plume.

Because TCE and its degradation products were detected during the investigations around petroleum UST sites, additional investigations were conducted to determine the source. Building 1290, an aircraft hanger that had a degreasing system located in the corner of the facility, was identified as a potential source of the chlorinated solvent contamination. The Data Summary Report for TCE Plume at Building 1290 (SAIC 2008) presented the results of the preliminary investigation for the trichloroethene (TCE) plume at Building 1290. The data presented the field activities performed for the investigation for the TCE plume at Building 1290: (1) groundwater sampling at 21 monitoring wells installed by Solutions to Environmental Problems, Inc. (STEP) and 2 additional existing wells during July 17 through 19, 2007; (2) performing 20 vertical profiles using a membrane interface probe (MIP) followed by confirmation soil and groundwater sampling at 10 locations using direct-push technology (DPT) in October 2007; and (3) performing 20 vertical profiles using a MIP followed by confirmation soil and groundwater sampling at 10 locations using DPT in January 2008. TCE or its degradation products were not detected around Building 1290 but were detected in areas closer to USTs 25 and 26.

Fort Stewart DPW investigated the possibility that the source of the contamination was due to the Purging Facility located approximately 1,000 feet west of the area. The site investigation included soil and groundwater sampling conducted in May and July 2006. No further investigation was recommended for slightly elevated concentrations of VOCs, SVOCs, and RCRA metals in surface soil, subsurface soil, and groundwater at the HAAF Purge Facility. The chlorinated solvents and the elevated concentration of chromium detected in deep groundwater were to be investigated under a separate project. It was recommended that the shallow and deep monitoring wells should remain in place and be evaluated as potential monitoring points for site-wide investigation activities associated with chlorinated solvent contamination in the deep surficial groundwater.

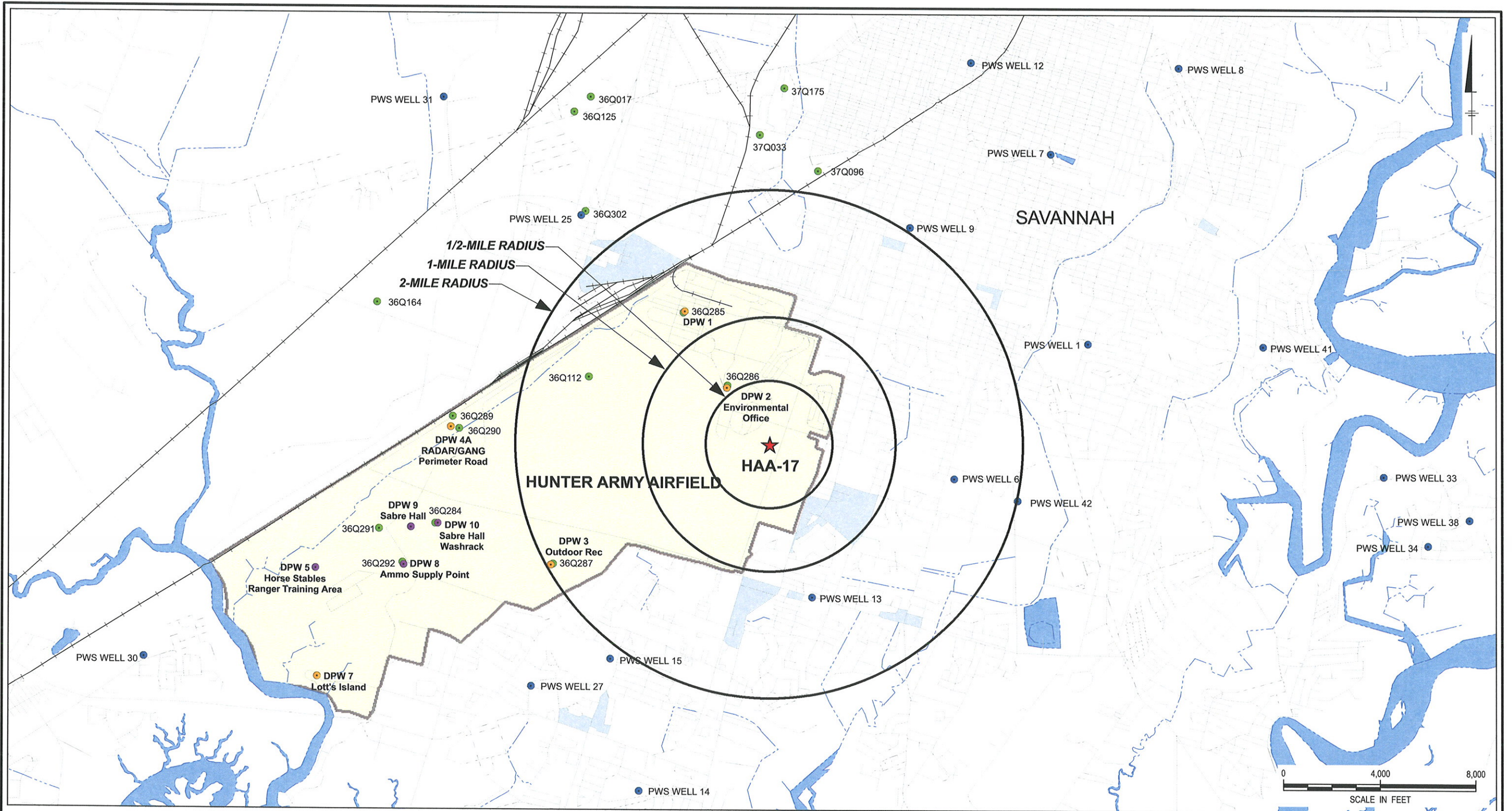
ATTACHMENT 2

Water Supply Well Information

(Taken from UST 25/26 CAP-B Addendum #1

[SAIC, February 2000])

CITY:(KNOXVILLE) DIV:(GROUP:ENV) DB:(BALTIM) LD:(BALTIM) PIC:(M.FENNER) PM:(C.BERTZ) TM:(S.BOSTIAND.WILLIS(ENGLISH))
PROJECT: GP08HAFS.F17ADBCSM PATH: G:\GIS\GP08HAFS\H7A2009 HSRA Notification\F2-1 HAA17_HSRA_PWS.mxd SAVED: 7/4/2009



BASE REFERENCE: TIGER LINE FILES, 2000.

LEGEND:

- USGS Designated Water Supply Well
- Savannah Bureau of Water Operations Designated Public Water Supply Well
- HAA Directorate of Public Works (DPW) Designated Public Water Supply Well
- HAA Directorate of Public Works (DPW) Designated Non-Public Water Supply Well

HUNTER ARMY AIRFIELD, GEORGIA
HAA-17 — HSRA NOTIFICATION

Water-Well Survey
(Attachment 2)



FIGURE
2-1

ATTACHMENT 3

Required Attachments Part II Release Information

9. Site Summary – Part A Summary Text

ATTACHMENT 3

Required Attachments Part II Release Information

Question #9 A. Site Summary

The assessment of contamination associated with UST 25 and 25 revealed the presence of TCE in several of the groundwater samples. During additional investigations carried out in November/December 2000, 1,1-DCE and TCE were detected above their respective MCL and further investigation was required to delineate the vertical and lateral extent of the deeper (20 to 30 feet bgs) TCE plume. In March 2001, ten monitoring wells were installed at depths based on previous boring results, and sampled. TCE was the only constituent detected above MCL.

Investigation activities including vertical profiling and groundwater sampling continued in 2006 with the evaluation of the Purge Facility as a potential source of the TCE plume. During this assessment, a series of soil and groundwater samples were collected along drainage pathways and newly installed monitoring wells and analyzed for VOCs, SVOCs, and RCRA Metals. Surface soil samples (0-1 foot interval) only identified arsenic at levels above EPA residential Risk Based Concentrations (RBCs). The detected concentrations ranged from 0.64 to 1.1 mg/kg. Subsurface soil samples (2 to 6 foot interval) identified benzo(a)pyrene, arsenic, chromium, mercury, and selenium at levels greater than their respective GSSLs. Furthermore, Arsenic (0.85 mg/kg) and benzo(a)pyrene (0.253 mg/kg) were identified at one location above the residential RBCs. Due to the fact that benzo(a)pyrene is common in industrial areas from routine activities, the one detection was determined to not be caused by a release. Secondly, the chromium, mercury, and selenium detections were resolved to not be a cause for groundwater contamination, as mercury and selenium were not detected in groundwater samples and the elevated chromium identified in a groundwater sample was attributed to the turbidity of the sample. Groundwater sample results identified detections of benzene, TCE, 2-methylnaphthalene, naphthalene, and chromium. As previously discussed, the chromium detection was attributed to the turbidity of the sample and the benzene, 2-methylnaphthalene, and naphthalene detections were determined to be a result of routine activities and not attributed to a release. The elevated TCE detection in a deep monitoring well was potentially attributable to the TCE contamination discovered near the USTs, approximately 1000 feet to the west. The TCE was detected at a level significantly lower than the concentrations seen in the vicinity of the USTs, leading to the determination that the Purge Facility was not a source.

In 2007 and 2008, a second source investigation was conducted with the consideration of Building 1290 as a potential source of the TCE contamination. The results of the investigation, which involved a groundwater sampling event, followed by membrane interface probe (MIP) and direct-push technology (DTP) activities, confirmed the presence of six VOCs (1,1-DCA, 1,1-DCE, acetone, chloroform, TCE, and VC) in the vicinity of USTs 25 and 26 and chlorinated solvents in the vicinity of the Purge Facility. However, chlorinated solvents were not detected in the vicinity of Building 1290. The closest VOC detection, 1,1-DCE was located approximately 675 feet away in the southeast direction from building. This lack of chlorinated solvent contamination in the vicinity of Building 1290 was confirmed through MIP and DPT results taken after the groundwater sampling event in 2007 and 2008, respectively.

ATTACHMENT 4

Required Attachments Part II Release Information

9. Site Summary – Part B Site Figures

ATTACHMENT 4

Part II – RELEASE INFORMATION

9. Site Summary B. Site Figures

FIGURE LIST BY SOURCE DOCUMENT

From “Data Summary Report for TCE Plume at Building 1290”, SAIC, August 2008:

Figure 1 VOCs in Groundwater (July 2007)

Figure 4 VOCs in Subsurface Soil (October 2007)

Figure 5 VOCs in Subsurface Soil (January 2008)

Figure 6 VOCs in Groundwater (October 2007)

From “Site Investigation Report for the Purge Facility at Hunter AAF, Georgia”, SAIC, February 2007

Figure 3-1 Analytes Detected In Surface Soil (February 2007)

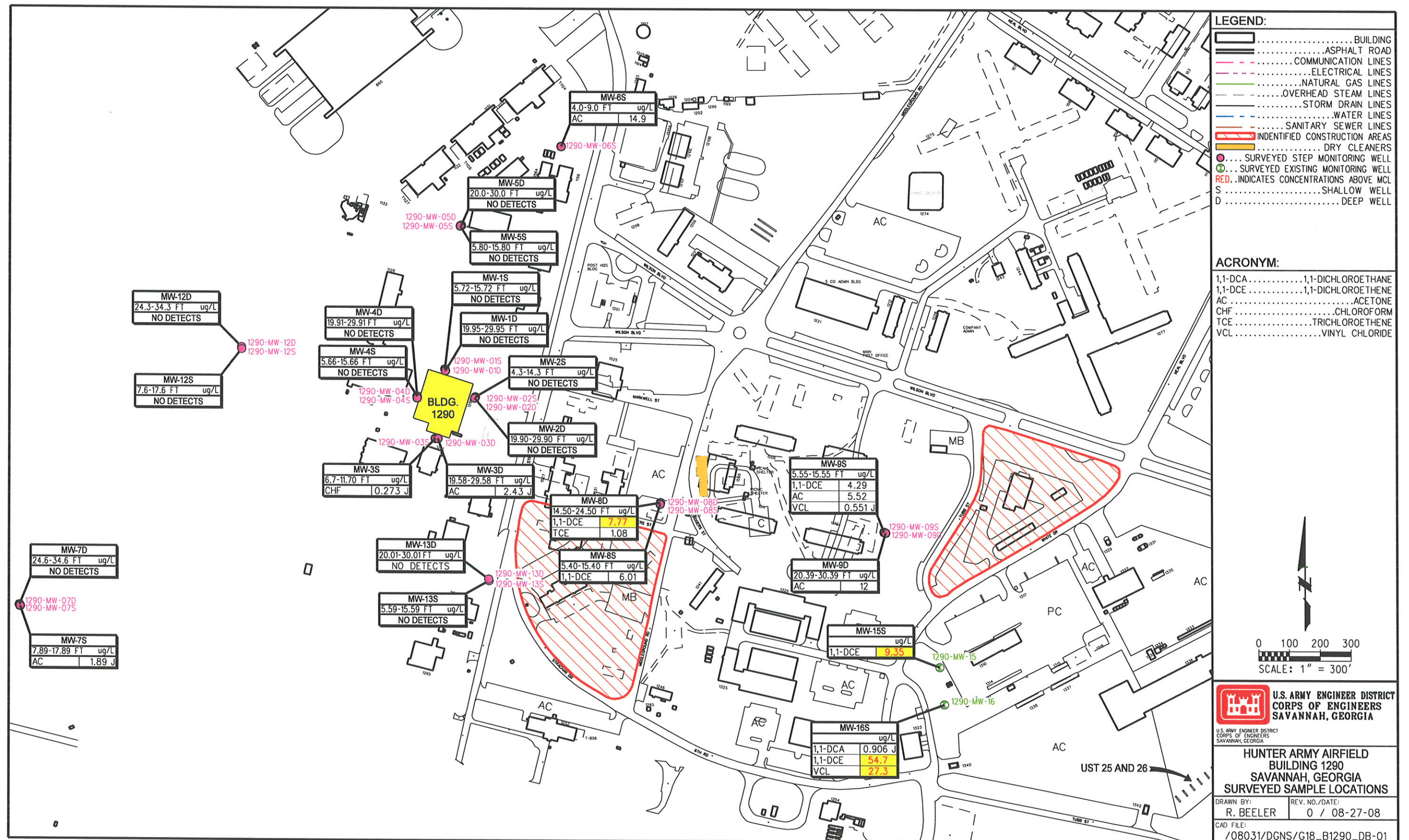
Figure 3-2 Analytes Detected In Subsurface Soil (February 2007)

Figure 3-3 Analytes Detected In Groundwater (February 2007)

From “UST 25 and 26 7th Annual MO Report”, SAIC, August 2007

Figure 3c BTEX Shallow Groundwater Quality Map (January 2007)

Figure 3d Deep Groundwater Quality Map (January 2007)



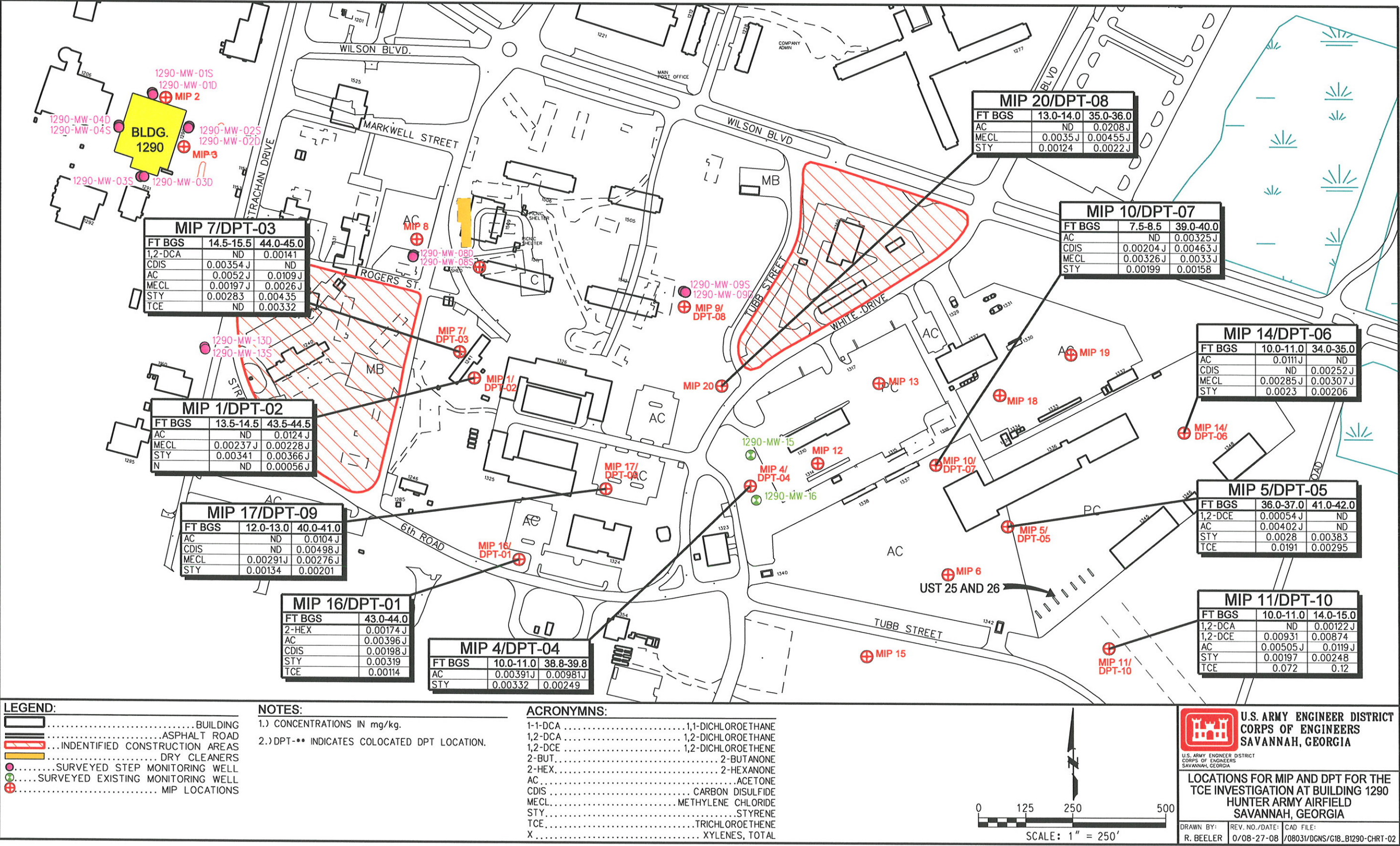


Figure 4. VOCs Detected in Subsurface Soil Collected from DPT Locations in October 2007 Around Building 1290, Hunter Army Airfield, Georgia

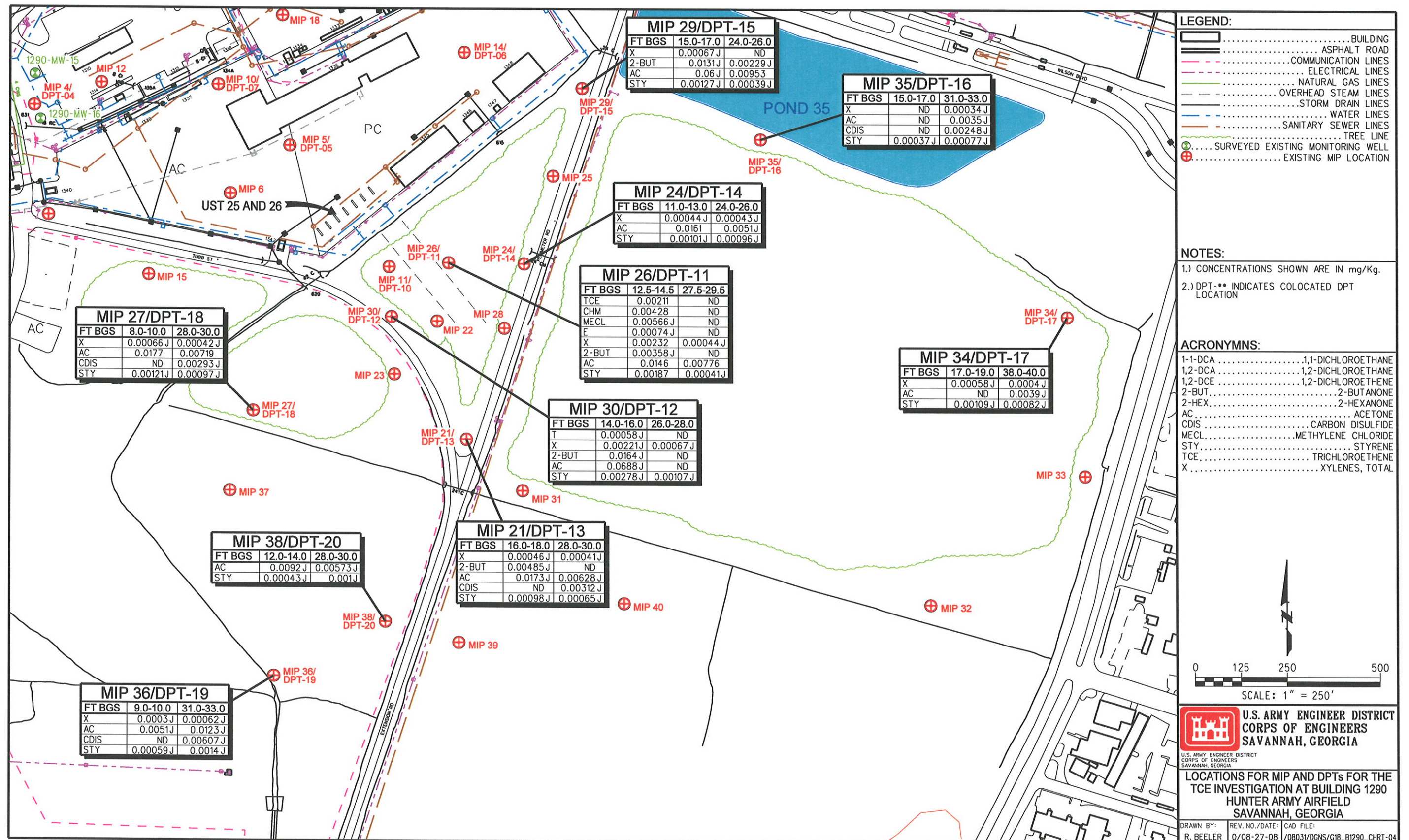


Figure 5. VOCs Detected in Subsurface Soil Collected from DPT Locations in January 2008 Southeast of Building 1290, Hunter Army Airfield, Georgia

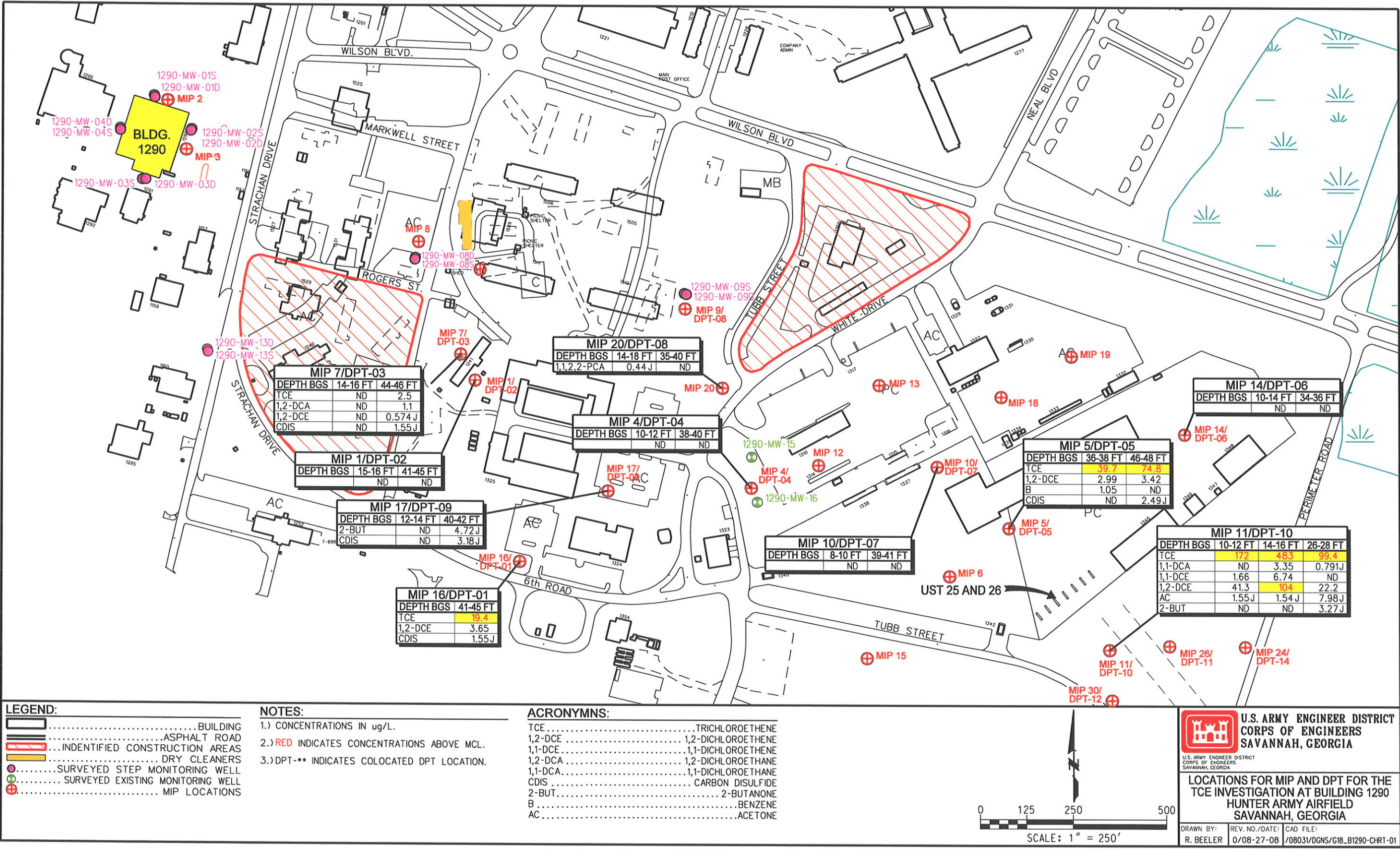


Figure 6. VOCs Detected in Groundwater Collected from DPT Locations in October 2007 Around Building 1290, Hunter Army Airfield, Georgia

Seventh Annual Monitoring Only Report
USTs 25 & 26, Building 1343, Facility ID #9-025008

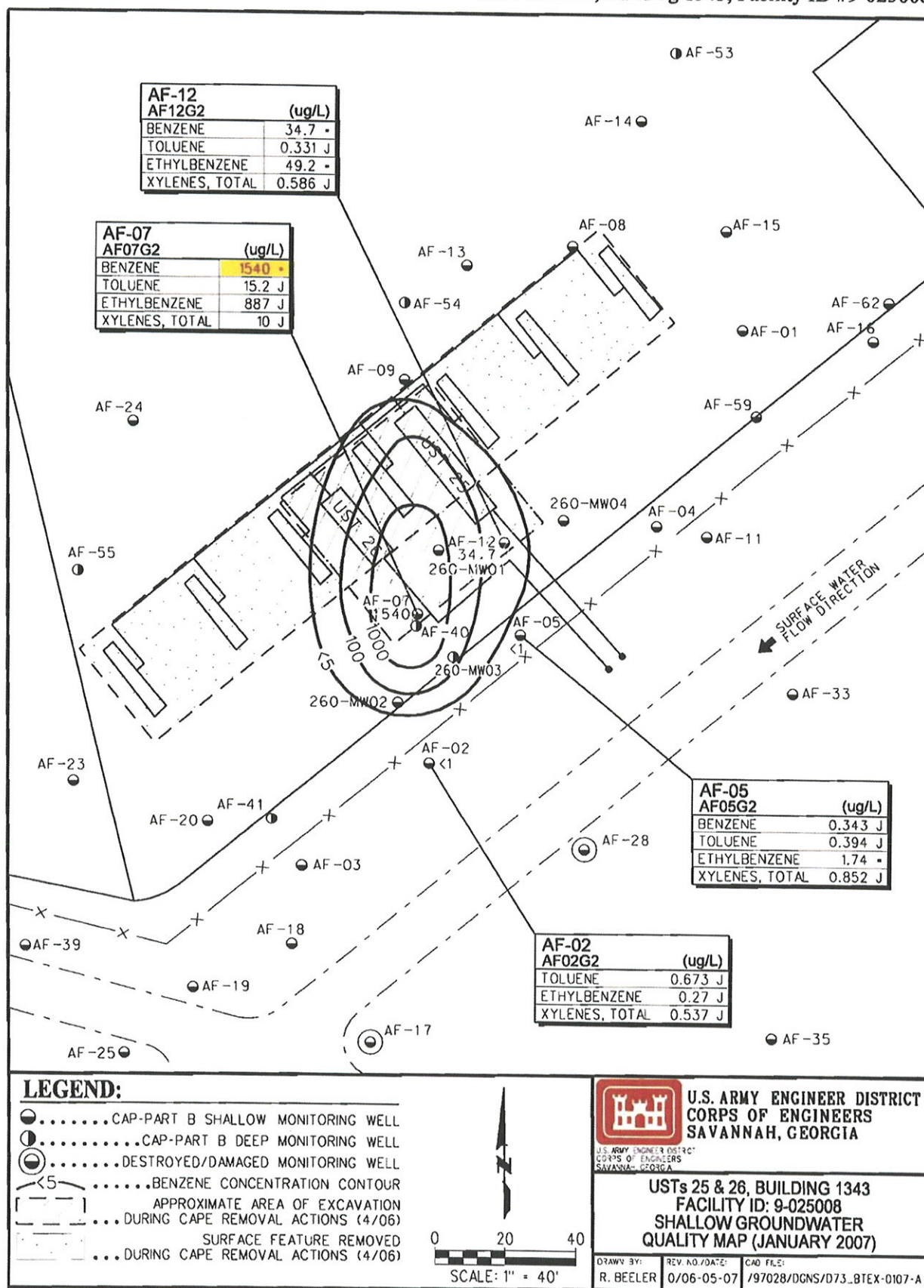


Figure 3c. BTEX Shallow Groundwater Quality Map for the USTs 25 & 26 Site (January 2007)

Seventh Annual Monitoring Only Report
USTs 25 & 26, Building 1343, Facility ID #9-025008

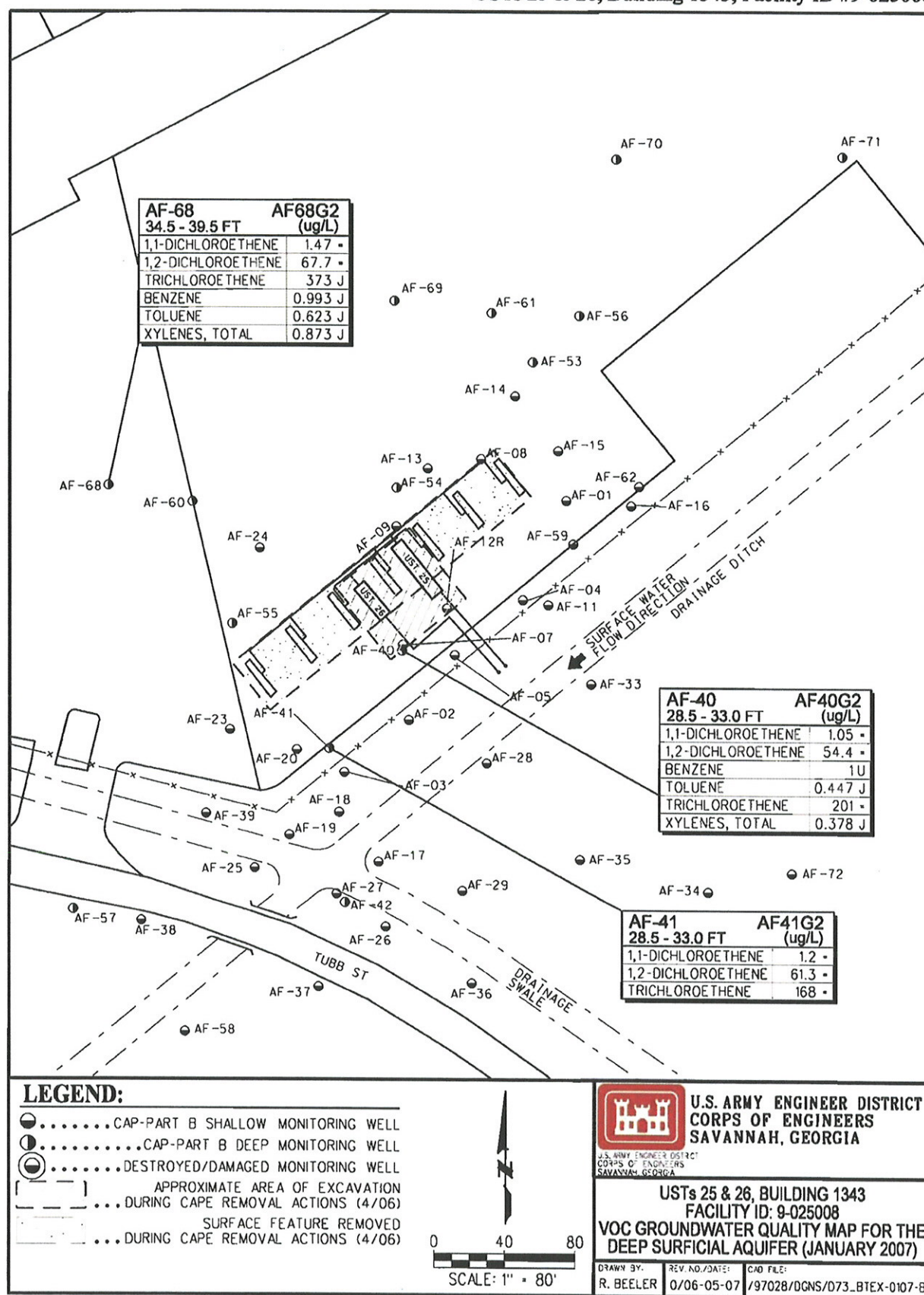


Figure 3d. Deep Groundwater Quality Map for the USTs 25 & 26 Site (January 2007)

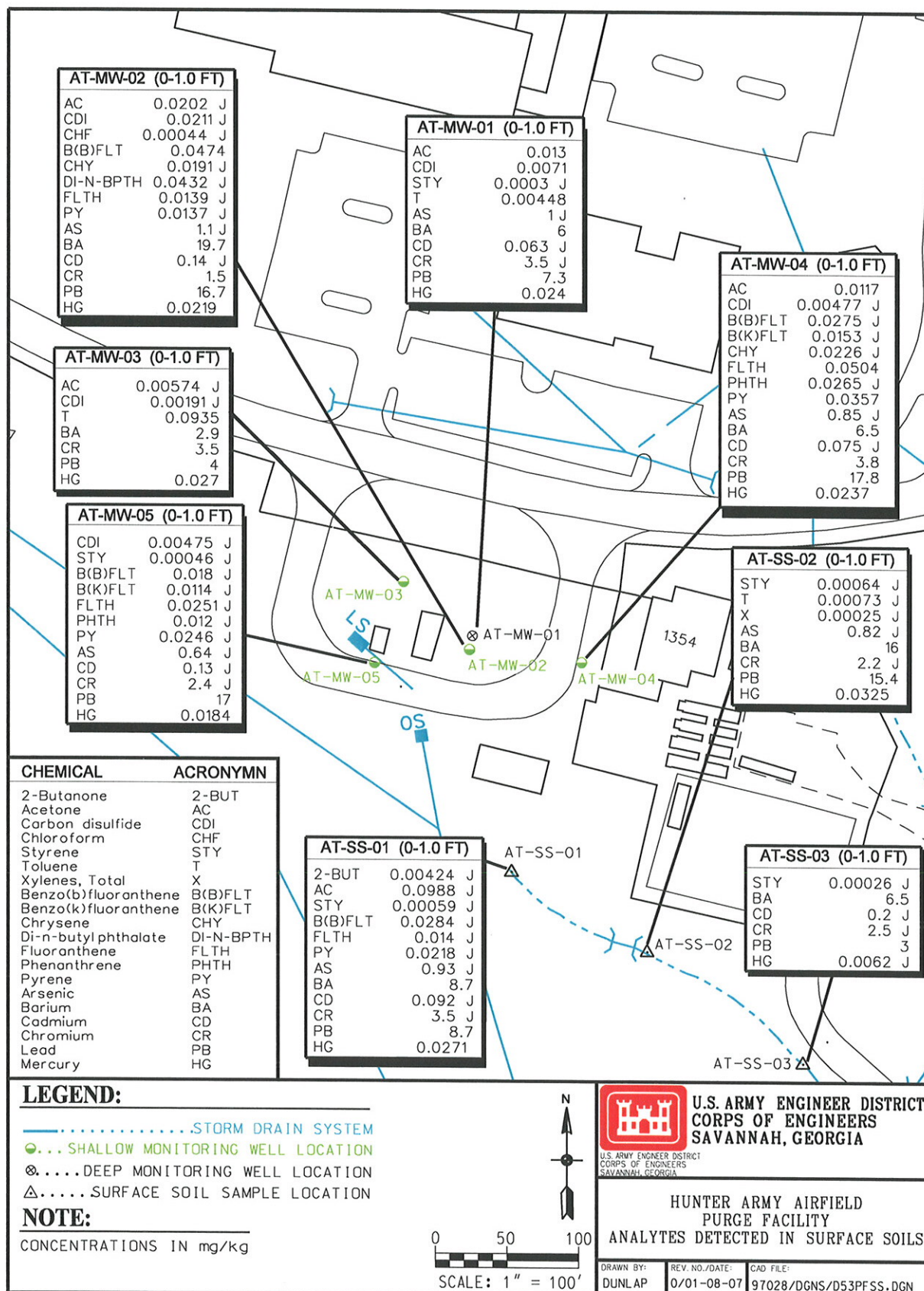


Figure 3-1. Analytes Detected in Surface Soil at the Hunter Army Airfield Purge Facility

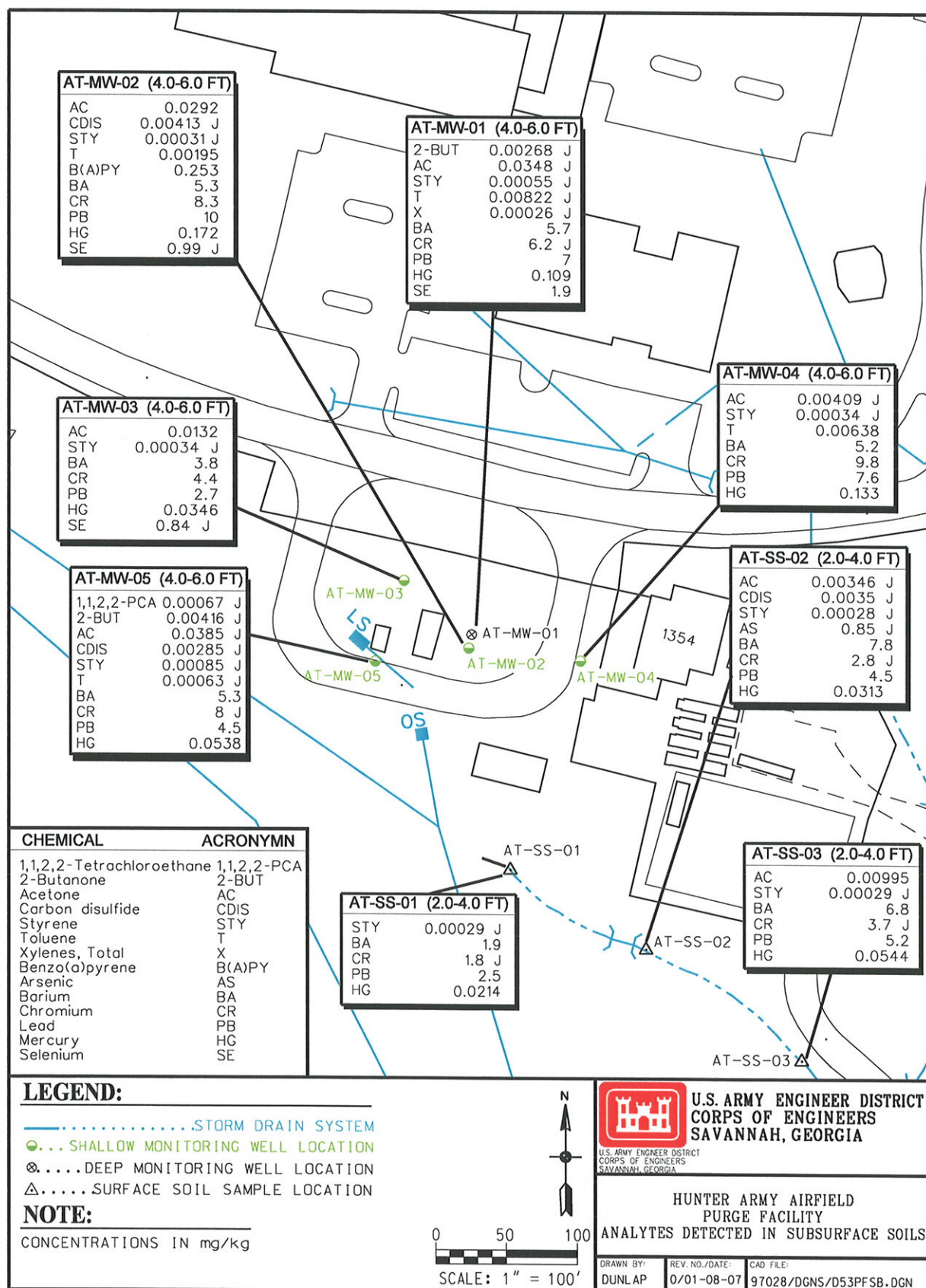


Figure 3-2. Analytes Detected in Subsurface Soil at the Hunter Army Airfield Purge Facility

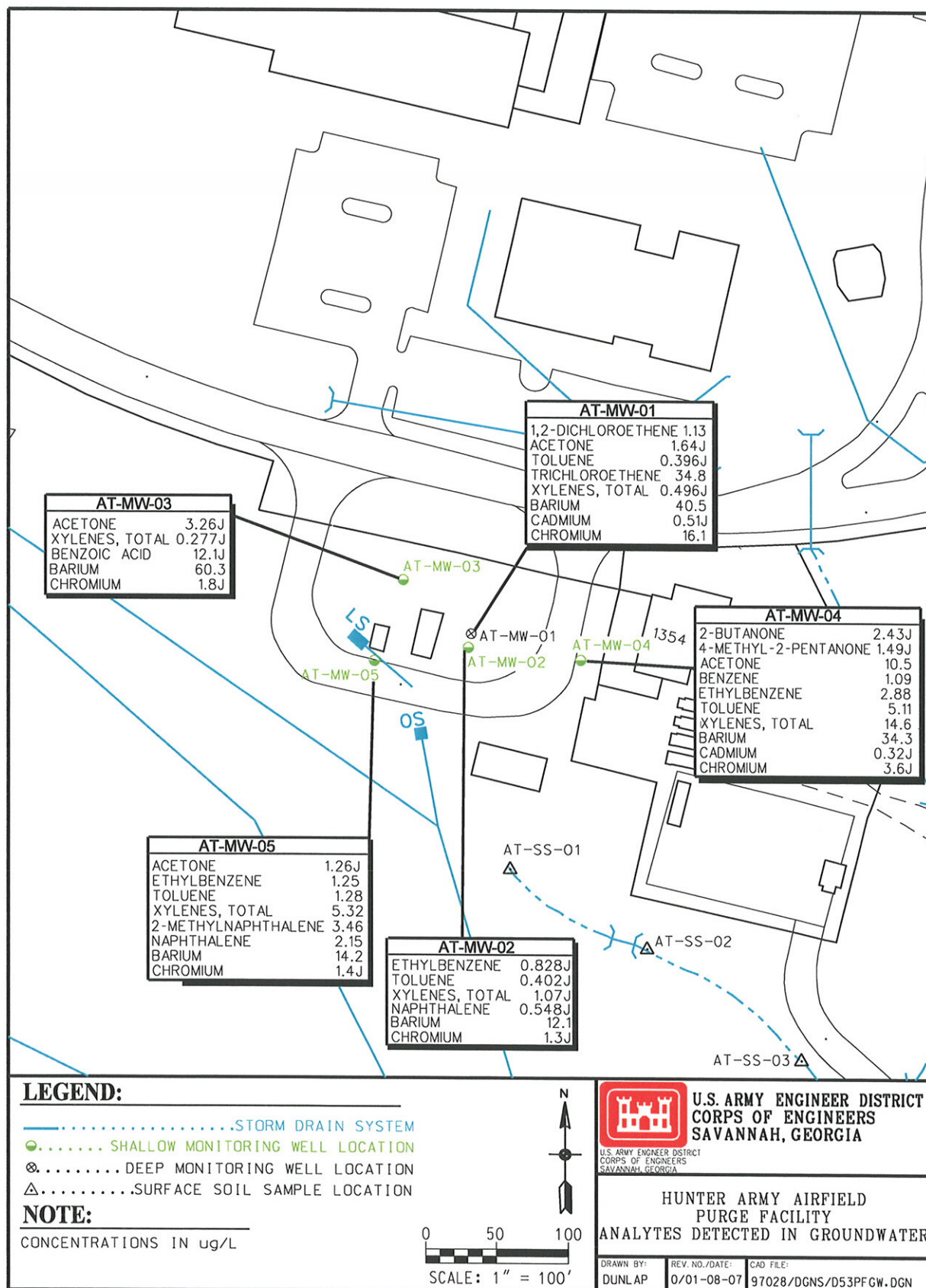
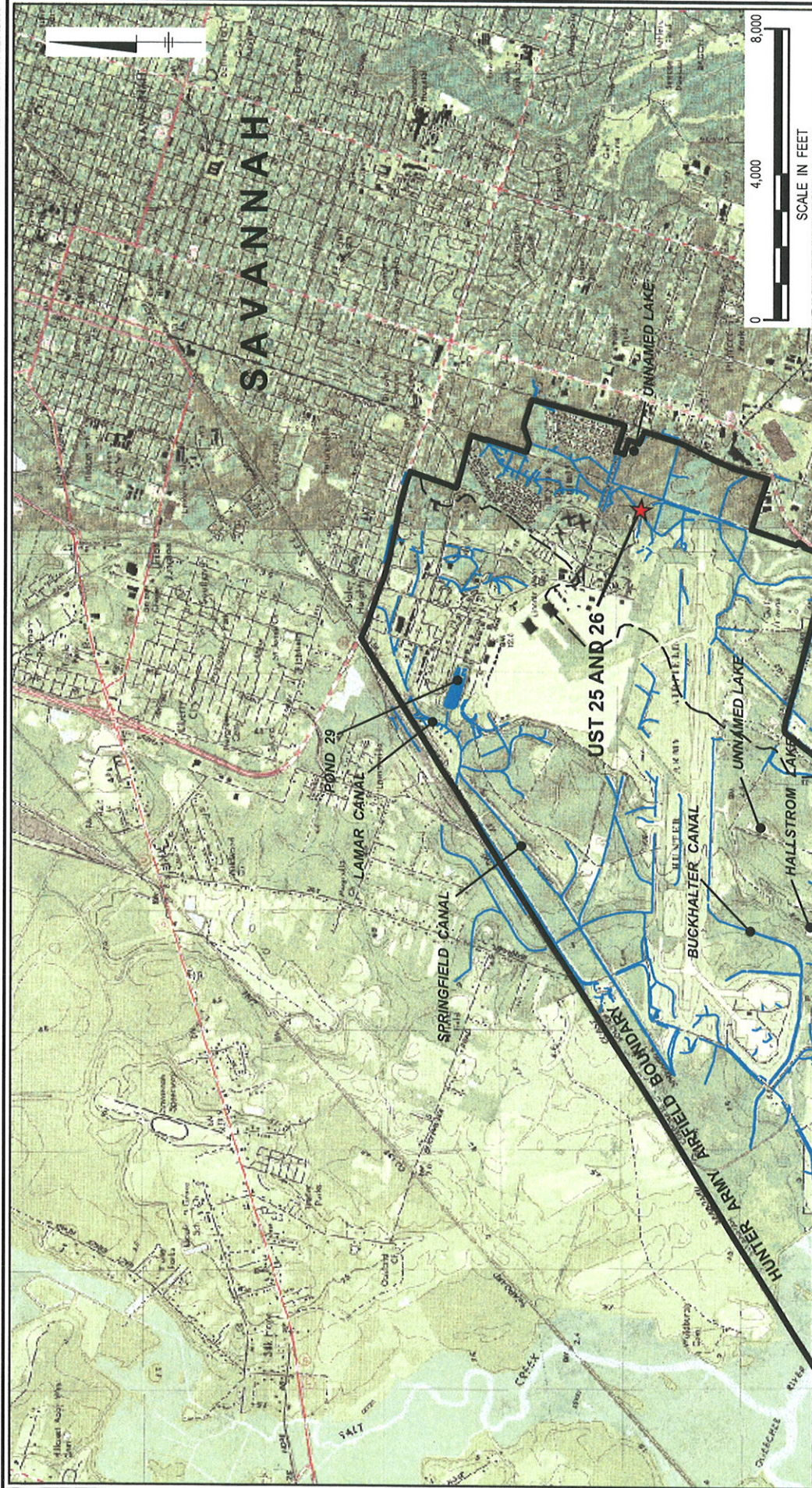


Figure 3-3. Analytes Detected in Groundwater at the Hunter Army Airfield Purge Facility

ATTACHMENT 5

Required Attachments

10. USGS Topographic Map



REFERENCE:
DIGITAL RASTER GRAPHIC COUNTY MOSAIC FROM NRCS,
CHATHAM COUNTY. FILE NAME: DRG_S_GA051.SID
USGS TOPOGRAPHIC QUADRANGLES, GARDEN CITY AND SAVANNAH, GEORGIA.

HUNTER ARMY AIRFIELD AND FORT STEWART

SAVANNAH, GEORGIA

UST 25 AND 26 (HAA-17)

HSRA Notification

Site Location Map



FIGURE

1