US Army Corps
of Engineers

FINAL
CORRECTIVE ACTION PLAN - PART B
DAACG FACILITY AREA
EPD FACILITY No. 9025085

at

HUNTER ARMY AIRFIELD
SAVANNAH, GEORGIA

under

Contract No. DACA21-93-D-0049
Delivery Order No. 19

September 1996

Submitted to:
U.S. ARMY CORPS OF ENGINEERS
SAVANNAH, GEORGIA

Presented by:
METCALF & EDDY, INC.
ATLANTA, GEORGIA

DOCUMENT 2

Georgia Department of Natural Resources
Environmental Protection Division
Underground Storage Tank Management Program
4244 International Parkway, Suite 104, Atlanta, Georgia 30354
Lonice C. Barrett, Commissioner
Harold Reheis, Director
(404) 362-2698

CORRECTIVE ACTION PLAN
PART A

Facility Name: Hunter Army Airfield

Street Address: Building 833

City: Savannah County: Chatham Facility ID: 9025085

Submitted by UST Owner/Operator:

Name: Mr. John Spears (DEH AFZP-DEV)

Company: U.S. Army Corps of Engineers

Address: Building 1139

City: Ft. Stewart State: GA

Zip Code: 31314-5000

Prepared by:

Name:

Company: Metcalf & Eddy, Inc.

Address: 1201 Peachtree St., NE
400 Colony Square, Suite 1101

City: Atlanta State: GA

Zip Code: 30361

I. PLAN CERTIFICATION:

A. UST Owner/Operator

I hereby certify that the information contained in this plan and in all the attachments is true, accurate, and complete, and the plan satisfies all criteria and requirements of Rule 391-3-15-.09 of the Georgia Rules for Underground Storage Tank Management.

Name: John Spears, Div. of Eng./Housing-Env.

Signature: _____ Date: _____

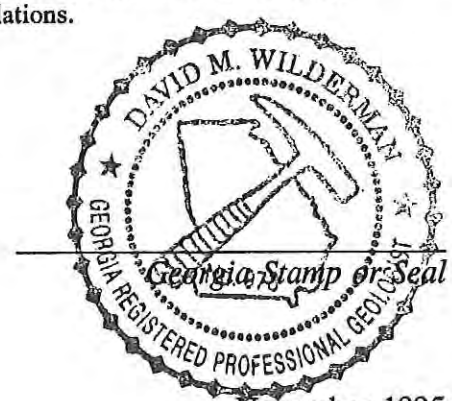
B. Professional Engineer or Professional Geologist

I hereby certify that I have directed the field work and preparation of this plan, in accordance with State Rules and Regulations. As a registered geologist and/or engineer, I certify that I am a qualified groundwater professional, as defined by the Georgia State Board of Professional Geologists. All of the information and laboratory data in this plan and in all of the attachments are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Name: David M. Wilderman

Signature: [signature]

Date: 9.30.96



Georgia Stamp or Seal

Check all boxes below that apply. Attach supporting documentation, i.e., narrative, figures, tables, maps, boring/well logs, etc., for all items checked. Supporting documentation should be three-hole punched and prepared in conformity with the guidance document "Underground Storage Tank (UST) Release: Corrective Action Plan - Part B (CAP-B) Content," GUST-7B.

II. SITE INVESTIGATION REPORT:

A. Horizontal and Vertical Extent of Contamination: (see Supporting Documentation Section II.A.)

■ Soil ■ Groundwater ☐ Free product ☐ Surface water

B. Local and Site Hydrogeology: (see Supporting Documentation Section II.B.)

■ Documentation of Local Groundwater Conditions

■ Stratigraphic Boring Logs (see Appendix D)

■ Stratigraphic Cross Sections (see Figures 9 and 10)

■ Referenced or Documented Calculations of Relevant Aquifer Parameters

■ Direction of Groundwater Flow:

■ Table of Monitoring Well Data (see Table 6)

■ Potentiometric Map (see Figure 6)

■ Flow Net Superimposed on a Base map (see Figure 6)

III. REMEDIAL ACTION PLAN:

A. Corrective Action Completed or In-Progress:

☐ Recovery/Removal of Free Product (Non-aqueous Phase Hydrocarbons)

☐ Remedial/Treatment of Contaminated Backfill Material & Native Soils

☐ Other (specify) _____

_____

B. Objectives of Corrective Action: (see Supporting Documentation Section III.B)

☐ Remove Free Product that Exceeds One-Eighth Inch

☐ Remediate Groundwater Contamination that Exceeds:

☐ Maximum Contaminant Levels (MCLs)

OR

☐ In-stream Water Quality Standards

B. Objectives of Corrective Action (continued):

☐ Remediate Soil Contamination that Exceeds:

☐ Threshold Values Listed in Table A

OR

☐ Threshold Values Listed in Table B

OR

☐ Alternate Threshold Levels (ATLs) (Reference CAP A App. I)

■ Provide Risk-Based Corrective Action (Reference CAP B App. I)

☐ Remediate Soil and/or Groundwater Contamination that Exceeds Alternate Concentration Limits (ACLs) and Monitor Residual Contaminants

OR

■ Monitor Soil and/or Groundwater Contamination that Exceeds Levels in Rule - .09(3) But is Less than ACLs. See Section III.B. of the supporting documentation.

C. Design and Operation of Corrective Action Systems:

☐ Soil ☐ Groundwater ☐ Free Product ☐ Surface Water

D. Implementation:

Includes, as a minimum, the following:

- Milestone schedule for site remediation
- Inspection and preventive maintenance schedule for all specialized remediation equipment
- Monitoring/sampling and reporting plan for measuring interim progress and project completion
- Plan to decommission equipment/wells and close site

IV. PUBLIC NOTICE:

☐ Certified Letters to Adjacent, and Potentially Affected Property Owners and Local Officials

☐ Legal Notice in Newspaper, as approved by EPD

■ Other EPD-approved Method (specify) see Supporting Documentation Section IV.

V. CLAIM FOR REIMBURSEMENT (For GUST Trust Fund sites only)

- ☐ GUST Trust Fund Application (GUST-36), must be attached if applicable
- ☐ Cost Proposal
  - ☐ Non-Reimbursable Costs

    OR
  - ☐ Reimbursable Costs
    - ☐ Total Project Costs
      - ☐ Costs incurred to date, per GUST-92
      - ☐ Estimated costs to complete corrective action, per GUST-92
    - ☐ Invoices and Proofs-of-Payment for Costs Incurred To-Date
- ☐ Proposed Schedule for Reimbursement
  - ☐ Lump Sum Payment Upon Completion of Corrective Action

    OR
  - ☐ Interim Payments With Final Payment Upon Completion

SUPPORTING DOCUMENTATION
CORRECTIVE ACTION PLAN - PART B
EPA FACILITY ID: 9025085

HUNTER ARMY AIRFIELD
SAVANNAH, GEORGIA
CONTRACT NO. DACA 21-93-D-0049
DELIVERY ORDER NO. 0019

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF FIGURES

APPENDIX

LIST OF ACRONYMS

ACL	Alternative Concentration Limit
ASTM	American Society of Testing and Materials
ATL	Alternate Threshold Level
AVGAS	Aviation Gasoline
bls	below land surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAP	Corrective Action Plan
COC	Chain-of-Custody
DAACG	Departure/Arrival Air Control Group
DIOF	Deionized organic-free
DNR	Department of Natural Resources
DO	Delivery Order
DQO	Data Quality Objectives
DRO	Diesel Range Organics
EM	Engineer Manual
EPA	Environmental Protection Agency
EPD	Environmental Protection Division (State of Georgia, Department of Natural Resources)
ER	Equipment Rinsates
FID	Flame ionization detector
ft/day	feet per day
ft/ft	feet per feet
°F	degrees fahrenheit
GC	Gas chromatograph
GORE	W. L. Gore and Associates, Inc.
GRO	Gasoline Range Organics
GUST	Georgia Underground Storage Tank
HAAF	Hunter Army Airfield
HSA	Hollow Stem Auger
ID	Inside diameter
IDW	Investigation-derived waste
IWQS	Instream Water Quality Standard
MCL	Maximum Contaminant Level
M&E	Metcalf & Eddy, Inc.
mg	milligrams
mg/L	Milligrams per liter
ms	Matrix Spike
msl	mean sea level
MS/MSD	Matrix spike/matrix spike duplicate
MW	Monitoring Well
NGVD	National Geodetic Vertical Datum
NSF	National Sanitation Foundation
OD	Outside diameter
OVA	Organic Vapor Analyzer
PAH	Polynuclear Aromatic Hydrocarbons

ACRONYMS (Continued)

ppb	Parts per billion
ppm	Parts per million
PVC	Polyvinyl chloride
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QC	Quality Control
RBCA	Risk-Based Corrective Action
RF	Response Factor
RPD	Relative Percent Difference
SADL	South Atlantic Division Laboratory
SAV	Savannah District
SDG	Sample Delivery Group
SI	Site Investigation
SIP	Site Investigation Plan
SL	Savannah Laboratories
SOW	Scope of Work
SPH	Separate Phase Hydrocarbons
SSS	Split Spoon Sample
SPT	Standard Penetration Test
SVOC	Semivolatile organic compound
TB	Trip Blanks
TOC	Top of Casing
TPH	Total Petroleum Hydrocarbons
UST	Underground storage tank
USACE	United States Army Corps of Engineers
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

LIST OF REFERENCES

Burroughs Quadrangle, Georgia, 7.5 Minute Series Topographic Map, 1988.

Clarke, John S., Hacke, Charles M. and Peck, Michael F., 1990, Geology and Ground Water Resources of the Coastal Area of Georgia, Department of Natural Resources, Bulletin 113, 106p.

Fetter, C. W., 1988, Applied Hydrogeology, Second Edition, Merrill Publishing Co., Columbus, Ohio, p. 126.

Garden City Quadrangle, Georgia, 7.5 Minute Series Topographic Map, 1980.

Georgia Department of Natural Resources, Environmental Protection Division, February 1995, Underground Storage Tank Management, Chapter 391-3-15.

Isle of Hope Quadrangle, Georgia, 7.5 Minute Series Topographic Map, 1988.

Savannah Quadrangle, Georgia 7.5 Minute Series Topographic Map, 1978.

State of Georgia, 1995, Underground Storage Tank Act, Chapter 13, Section 12-13.

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SECTION I.

INTRODUCTION

Information presented in the following sections of this Supporting Documentation is arranged in the order referenced in the Georgia Environmental Protection Division (EPD) "GUST-CAPB.FOR" form, dated February 1995. For simplicity of reference, the section titles in this Supporting Documentation are identical to the section titles on the form. Information required by the Georgia EPD is presented herein.

SITE LOCATION AND USE

Metcalf & Eddy (M&E) was contracted by the U.S. Army Corps of Engineers (USACE) to conduct a subsurface investigation of soil and groundwater quality in proximity to Building 833 (also known as the Departure/Arrival Airfield Control Group "DAACG") at Hunter Army Airfield (HAAF), Savannah, Georgia. The investigation was conducted following Georgia Rule 391-3-15 for petroleum-related investigations. Several aircraft fueling pump houses exist on the perimeter of the study area for this project. The pump houses, particularly Pump House #1, are suspected sources for petroleum hydrocarbons identified in the subsurface within the DAACG study area. Airfield fuel pipelines also exist in proximity to the DAACG building. The location of the study area is provided in **Figure 1**.

In the spring of 1994, the drainage system piping located east of the DAACG facility was upgraded from 48-inch steel to concrete. The construction activities sparked a small fire in one of the pipe excavation pits. A previous investigation at the DAACG facility identified petroleum hydrocarbons in both soil and groundwater. The results of this investigation were incorporated into a CAP-Part A, submitted to EPD in July 1995. This Corrective Action Plan (CAP) - Part B is submitted in accordance with the Site Investigation Plan (SIP) outlined in the July 1995 CAP-Part A.

The storm water drainage system carries runoff from the west ramp area at HAAF to a drainage ditch on the northwestern boundary of the airfield. This drainage ditch eventually

empties into the Springfield canal that joins the Little Ogeechee River approximately 3 miles from the study area.

SECTION II.A. Horizontal and Vertical Extent of Contamination

Criteria for Evaluation of Soil

The State of Georgia EPD has promulgated Soil Threshold Levels under the Underground Storage Tank (UST) Management program, Chapter 391-3-15. These threshold levels are based on groundwater pollution susceptibility, the distance to drinking water sources, and the distances between the contaminated media and surface water bodies. The study site is located within a higher groundwater pollution susceptibility area (as defined by the EPD 1992 Geologic Survey Map). Although public water supply wells were identified within 2 miles of the study area, these wells are not believed to be hydraulically connected to the shallow aquifer. Information on regional geology, discussed in Section II.B of this document, indicates that several confining units separate the shallow groundwater aquifer from the deeper Floridan aquifer used locally for potable water supply. Therefore, Table B Soil Threshold Levels (391-3-15-.09) which are based on distances to surface water bodies are used for evaluation of remedial alternatives. No surface water features were located within 500 feet from the petroleum contaminated soil identified in the study area. Therefore, criteria for sites where surface water bodies exist greater than 500 feet from the petroleum contaminant source were selected for evaluating soil analyses.

Site-specific soil results were compared to the Soil Threshold Levels for the volatile organic compounds and polynuclear aromatic hydrocarbons (PAHs) listed by EPD. The constituents identified in soil samples and the associated screening criteria are listed in **Table 1.**

Criteria for Evaluation of Groundwater

The State of Georgia Department of Natural Resources (DNR) Environmental Protection Division (EPD) has promulgated Instream Water Quality Standards (IWQS) under Chapter

391-3-6. These standards, listed in **Table 2**, may be more stringent than the federal maximum contaminant level (MCLs), as is the case for one PAH. The State IWQS are the criteria used to determine if contamination exists in the fresh waters of the state and may be applied as clean-up goals for surface water and groundwater which is not used for drinking water purposes. These standards will be used to evaluate the data obtained from groundwater sampling at HAAF. Federal standards such as the maximum contaminant level (MCL) or secondary drinking water standards will not be used to evaluate groundwater data because the shallow aquifer is not in contact with aquifers used locally for potable water supply.

Background Soil and Groundwater Conditions

Background conditions are generally characterized by naturally occurring soil and groundwater conditions without contamination. Background locations are typically situated beyond plume boundaries and are located hydraulically upgradient of known contaminated areas. No specific background soil or groundwater locations were selected for this CAP-Part B investigation because little information was available on groundwater flow directions and the extent of contamination. There are, however, numerous sampling locations along the investigation area where the sampling results (for benzene, toluene, ethylbenzene, and toluene--"total BTEX", purgeable and extractable total petroleum hydrocarbons (TPH), and PAHs were non-detect, and these results are taken to be representative of background conditions.

Field Investigation Overview

Seven hundred passive soil gas screening modules, 50 soil borings, and 32 groundwater monitoring wells were installed during the DAACG site investigation (SI) as presented in **Figure 2**. Backup documentation including soil boring logs, well development sheets, equipment calibration logs are presented in appendices. Portions of the passive soil gas survey report prepared by W. L. Gore and Associates, Inc. (Gore) are provided in **Appendix A**. Field equipment calibration sheets are provided in **Appendix B**. Soil and groundwater

sampling sheets are provided in **Appendix C**. Geologic logs are provided in **Appendix D**. Analytical data are presented in **Appendix E**. Monitoring well schematics, monitoring well development sheets, and well development water photographs are provided in **Appendix F**. The geotechnical data are provided in **Appendix G**. Soil boring and groundwater monitoring well survey data can be found in **Appendix H**.

Passive Soil Gas Survey

The initial field work effort consisted of collecting soil vapor samples from 700 locations spaced on a grid laid over the area of interest. The study area and number of passive soil vapor modules was defined in the USACE Scope of Work. The passive soil vapor sampling devices utilized for the survey were capable of detecting both volatile and semi-volatile compounds in the subsurface. GORE-SORBER® screening modules were used to collect the samples.

The purpose of the soil gas survey was to identify areas of potential contamination in the vadose zone and groundwater. Quality matching (the process of comparing module analytical chromatograms against the chromatograms of known fuel types) was conducted to determine the type of fuel released. The soil vapor module analyses were also used to select proposed locations for soil borings and groundwater monitoring wells. Detailed information on the GORE-SORBER™ module construction, installation and retrieval procedures, and analytical methods is provided in **Appendix A**.

The quality matching of the soil gas survey results to standards in GORE's fluids library indicates a range of aviation fuel products. Overall, the quality matching indicates a release of aviation gasoline (AVGAS) along with a mixture of other heavier fuels typically in the range of JP4 to kerosene. Several distinct areas where both volatile and semivolatile fuel components exist in soil vapor were identified. This information was used along with drawings which provide the layout of the stormwater drainage system to select locations for further subsurface investigation. Color maps showing the extent of hydrocarbons identified in soil vapor are provided in **Appendix A**.

Subsurface Investigation

The subsurface investigation of the DAACG facility and adjoining storm water drainage system included the installation of 50 soil borings and 32 groundwater monitoring wells. These sampling locations were selected to define the extent of soil and groundwater contamination identified by the soil vapor survey. Prior to conducting any intrusive fieldwork, all screening instruments were properly calibrated. Field equipment calibration sheets are provided in **Appendix B.** Soil and groundwater sampling sheets are provided in **Appendix C.**

Extent of Contamination in Soil

A total of 50 soil borings and 32 well borings were conducted to define the extent of subsurface contamination. Drilling and sampling methods used during the boring program are described in **Appendix D.** Soil boring logs are also provided in **Appendix D.**

Petroleum hydrocarbons were identified along the southern portion of the study area. Benzene was detected in soil samples from several locations at concentrations which exceed the soil screening criteria listed in Table B of Georgia Rule 391-3-15.09. Both PAH and volatile organic compounds were identified in soil samples collected in the DAACG area. However, no PAH soil screening criteria exists because the site is not located within 500 feet of a surface water body. Further evaluation of PAH remediation is therefore not considered in this CAP-Part B. The extent of petroleum hydrocarbons in soil has been defined to the north, east, and west. However, horizontal and vertical extent of soil contamination has not been defined to the south. **Table 3** lists petroleum constituents and concentrations identified in soil samples. Figure 2 identifies all sampling locations within the study area. **Figure 3** illustrates benzene concentrations in soil. Soil analytical data are presented in **Appendix E.** The data prefix "H833" (an abbreviation for "Hunter Building 833") has been removed from analytical tables, figures, and text references throughout this document for ease of viewing sampling locations. However, the prefix remains on all analytical reports presented in

appendices. Therefore, the sampling location MW04 listed on a figure is synonymous with analytical results entitled H833MW04.

The benzene concentration at six soil boring locations exceeded the Table B threshold level of 0.12 ppm. Benzene concentrations in soil samples ranged from 23 ppm in MW02 to 410 ppm in MW17. Ethylbenzene concentrations in soil samples from SB10 were detected at the threshold level of 140 ppm at 10 feet below land surface (bls), although the results were estimated (J flagged) by the laboratory. No other petroleum constituent detected in soil exceeded soil threshold levels.

Elevated benzene concentrations were typically identified near the groundwater table (around 10 feet bls). However, benzene was identified in soil samples both above (3.3 feet bls), and below (20 feet bls) the water table. The northern, eastern, and western boundaries of soil contamination appear to be defined within the study area. However, petroleum contamination in soil extends beyond the study area boundary to the south and further investigation was not authorized under this project's scope of work. However, Metcalf & Eddy will be performing a subsurface investigation in proximity to Pump Houses #1, #2, and #6 to define the extent of soil and groundwater contamination in that area. The pump houses are located directly south of the study area covered in this project. The pump house project is considered a separate delivery order from the USACE and results of the project will be summarized in a CAP-Part A and CAP-Part B for the pump house area. Metcalf & Eddy will attempt to orient the soil vapor grids, soil boring locations, and monitoring well locations in such a way that data can be compared between the DAACG area and pump house area investigations.

Extent of Contamination in Groundwater

Thirty-two monitoring wells (MW01 through MW32) were installed in the area of concern during April 22-29, 1996. The locations were based upon the results of the soil gas survey and the soil boring investigation. Detailed descriptions of well installation procedures, well construction, development, and sampling techniques are provided in **Appendix F.**

Dissolved petroleum hydrocarbons have been identified along the southern portion of the area investigated. The extent of petroleum hydrocarbons in groundwater has been defined to the north and east. However, horizontal and vertical extent of groundwater contamination has not been defined to the south and west. **Table 4** lists petroleum constituents and concentrations identified in monitoring wells at the site. **Figure 4** illustrates benzene concentrations in groundwater. Groundwater analytical data is presented in **Appendix E.**

Georgia IWQS for benzene was exceeded in samples collected from eight monitoring wells. Benzene concentrations that exceeded Georgia IWQS (71.28 ppb) ranged from 100 ppb in MW01 to 4,100 ppb in MW05. No other petroleum constituent exceeded Georgia IWQS.

The extent of benzene contamination in the subsurface has been defined to the east, north, and west of the central plume area. However, it has not been defined to the south. M&E will be conducting a subsurface investigation under separate contract to define the extent of this contamination. As previously described, the pump house investigation will encompass the area south of the DAACG study area and should be sufficient to define the extent of both soil and groundwater contamination.

SECTION II.B Local and Site Hydrogeology

Documentation of Local Groundwater Conditions

Nine potable wells were located within a 2-mile radius of the study area. **Figures 5A** and **5B** illustrate the well locations within a 2-mile radius of the site. No private potable wells were found in the search area. **Table 5** lists the potable wells identified, cased intervals, total depths, and usage. Documented reports of investigations conducted throughout the coastal plain area on groundwater resources indicate three major aquifers exist in the study area: the surficial aquifer, Brunswick aquifer, and the upper and lower Floridan aquifers (Clark et al, 1990). Separating the surficial aquifer from the deeper aquifers are two confining units.

The upper confining unit, Miocene unit A, ranges in thickness from about 15 feet to 90 feet with a vertical hydraulic conductivity of 5.3×10^{-5} to 1.3×10^{-4} feet/day (Clark et al, 1990). The lower confining unit, Miocene unit B, ranges in thickness from about 10 feet to 50 feet with a vertical hydraulic conductivity of 6.7×10^{-5} feet/day to 1.3×10^{-2} feet/day (Clark et al, 1990).

Eight of the nine wells located in the 2-mile radius are cased down to the Upper Floridan aquifer and are not hydraulically connected to the surficial aquifer where soil/groundwater contamination has been identified. One of the nine wells is cased down to only 90 feet and accesses both the Brunswick and Upper Floridan aquifers. However, this well is not hydraulically connected to the surficial aquifer since the casing extends into the uppermost confining unit, Miocene unit A. Moreover, the well (No. 290) is located over 6,500 feet west of the study area and is no longer in use.

All of the 32 monitoring wells were gauged on May 21, 1996. **Table 6** provides water level, elevations of top of casing (TOC), and the ground surface elevations for all wells in the study area. **Figure 6** shows the potentiometric surface over the area. Groundwater flow occurs toward the west with a variable gradient; averaging 0.004 ft/ft. Groundwater at the site is under water table conditions and is encountered between 7 and 12 feet bls, averaging 9.2 feet bls.

The surficial aquifer extends to approximately 40 feet around the Skidaway Island area in Chatham County. Aquifer tests performed in this area conclude the surficial aquifer has a hydraulic conductivity ranging from 2 to 65 feet/day and a transmissivity ranging from 14 to 1,100 square feet/day (Clark et al, 1990).

The approximate seepage velocity can be calculated for the study area using the formula (Fetter, 1988):

$$v = \frac{ki}{n_e}$$

where:

v = seepage velocity
k = hydraulic conductivity
i = gradient
n_e = effective porosity (assumed 0.20, Heath, 1987)

Using published values of k and n_e, the seepage velocity is calculated to range from 4.0×10^{-2} to 1.3 feet/day for the study area.

Local Geology

The local geology has been documented by the collection of soil samples from 82 locations along the investigation area. Depth of drilling was generally 16 feet bls.

The lithology encountered was predominantly a dusky red to yellowish brown, very fine to fine sand, with variable silt and clay content. Geologic boring logs are provided in **Appendix D.** Approximately 69 percent of the samples contained less than 10 percent fines which prevented Atterburg Limits testing. Moisture content averaged about 26 percent but ranged from 5.5 to 60.3 percent. **Appendix G** contains the results of geotechnical tests performed on well borings. An area of higher fines content was noted to exist toward the west-northwest portion of the site. Soil samples from 32 monitoring well locations were analyzed for grain size distribution and the results are presented in **Table 7. Figure 7** provides a plan view of the study area showing lines where cross-gradient **(Figure 8)** and downgradient **(Figure 9)** geologic cross sections have been prepared. The cross sections show the local geology encountered across the site.

SECTION III.B. Objectives of Corrective Action

Analytical results indicate a total of six soil samples exceed the benzene criteria established in Table B of 391-3-15.09. The Georgia IWQS were exceeded at eight locations for benzene. A risk of exposure assessment, discussed in the following paragraphs, identified no contaminant receptors downgradient of the study area. An additional investigation to the south of the study area is forthcoming to define the extent of subsurface soil and groundwater contamination in that direction. The study area for this continued subsurface investigation will be identified as the Pump House #1, #2, and #6 investigation area.

Risk of Exposure Assessment

The comprehensive study of the DAACG facility area indicated that only a small percentage of the area contained soil and groundwater contamination in excess of State standards. The 1-D modeling conducted during this investigation using formulae provided in Appendix I of the EPD CAP-Part A Guidance indicated that Alternate Threshold Limits (ATLs) for soil were also exceeded. The outcome of the ATL calculations suggests that contaminants in soil may adversely impact groundwater quality above Georgia IWQS. Metcalf & Eddy also performed a Risk of Exposure Assessment following guidelines provided in Appendix I of the CAP-Part B guidance documentation. The exposure assessment was comprised of six main steps which are briefly summarized below:

- Conducting a thorough search for both private and public potable water supply wells.
- Locating surface water bodies in proximity to contaminated areas.
- Inspecting subsurface utilities within and adjacent to the study area and determine if they might serve as a preferential conduit for contaminant migration.
- Examining all buildings proximal to the contaminated areas for the presence of basements which may become impacted from petroleum vapors.
- Inquiring about the planned future use of the subject site and of downgradient areas.

- Preparing a land use map which shows potential points of exposure within a 1/2-mile radius of the study site.

The results of the potable well survey were discussed in Section II.B. The study area is located on an active airfield and no private or potable public wells were identified within a 1/2-mile radius of contaminated zones. Public potable wells located within 2 miles of the DAACG area are hydraulically isolated from the shallow aquifer by two confining units. Metcalf & Eddy has identified a number of surface water bodies that exist south and southwest of the study area. The distance between the closest drainage feature and the contaminated areas identified during this DAACG facility investigation is approximately 700 feet. This drainage canal is located south of the southern border of the DAACG study area. Contours of the potentiometric surface indicate that groundwater flows toward the west in the study area. Therefore, these surface water drainage features are unlikely receptors to contaminants identified in the soil and groundwater. Two other man-made drainage features exist approximately 1000 feet west of the zone of highest soil and groundwater contamination. These features are more likely receptors of potentially mobile hydrocarbons in the subsurface.

Metcalf & Eddy personnel met with Department of Public Works (DPW) personnel at HAAF to discuss the location of subsurface stormwater drainage features. The flash fire that occurred during the stormwater drain replacement program prompted this investigation. Several stormwater features traverse the study area, eventually leading to the drainage features located south and west of the study area. Results of the passive soil vapor survey indicate that these storm drains do not act as conduits for preferential migration of hydrocarbons within the study area.

All buildings located within and adjacent to the study area were inspected for the presence of basements or underground areas. Only two buildings were identified: Building 833 (the DAACG building) and the Fire Department facility. No basements were identified at either building.

Inquiries were made to USACE and HAAF personnel concerning the future use of the land within the study area. The future use of downgradient areas was also discussed. Construction activities will be conducted in proximity to the existing Building 833 during 1996 and 1997. A new DAACG facility is being built in that area. However, Metcalf & Eddy's investigation identified no elevated levels of soil or groundwater contamination within the area of the new DAACG. Construction activities are not scheduled to take place anywhere else within the study area or downgradient in the foreseeable future. **Figure 10** provides a scale site drawing showing current land use, the new DAACG construction area, and the location of surface water bodies within 1/2-mile radius of the study site. This map indicates that no areas are at risk of exposing humans to contact with contaminated soil or groundwater.

The study area covered under this project is currently utilized for airfield activities only. Access is restricted to the entire area where contaminants have been identified in the subsurface. Moreover, the area is nearly completely covered with concrete pavement ranging in thickness from 8 to 18 inches. Human contact with contaminated groundwater and soil is unlikely in the study area. Likewise, human contact with surface water which exists south of the study area is unlikely because of access restrictions. Surface water samples will be collected from drainage ditches located south of the study area during the proposed Pump House #1, #2, and #6 investigation. Analyses presented in that report will indicate if petroleum hydrocarbons are present in surface water samples and the associated risk, if any, to human health and the environment.

Natural attenuation of subsurface hydrocarbons and groundwater monitoring should be sufficient to provide adequate protection of human health and the environment in light of the access restrictions and very limited use of the study area. The proposed Pump Houses #1, #2, and #6 investigation will include a potential receptor survey that will verify all points of withdrawal for water supply, downgradient surface water bodies, and underground utilities. A surrounding land use map will also be prepared for a 2-mile radius of the area of highest contamination for soil and groundwater. The land use map will identify present and future potential receptors or critical habitats.

Quarterly monitoring of the plume will be conducted to observe changes in the distribution of soluble hydrocarbons. Groundwater samples will be collected from across the entire plume to monitor the plume geometry, biodegradation effects, and contaminant migration. Monitoring will be conducted for at least 1 year to evaluate seasonal variations. Additional monitoring time may be required in order to evaluate the potential for contaminants to reach the nearest downgradient receptor (assumed to be the storm water drainage ditch). Corrective action using natural attenuation and the monitoring program will be re-evaluated if contamination is identified in the nearest surface water receptor above IWQS or if free product is identified in any DAACG area monitoring well. The USACE will respond to this condition as appropriate to limit any risk to human health and the environment.

SECTION IV Public Notice

The site is located within the boundaries of HAAF, with the closest property boundary being over 1 mile away. Since no private property is contiguous to the study area, public notification of the Corrective Action Plan is not required.

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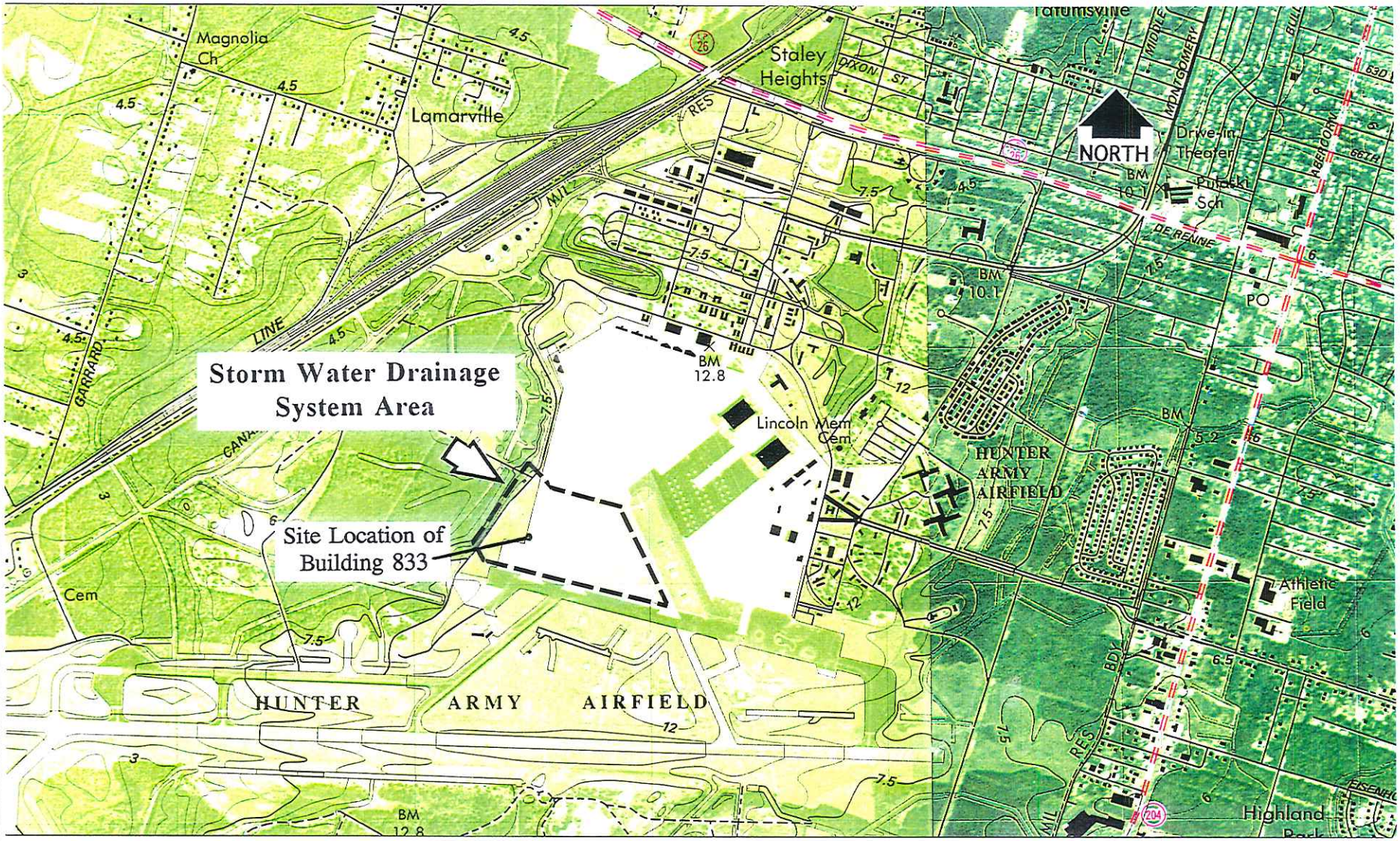


2000 0 2000

SCALE: 1:24000

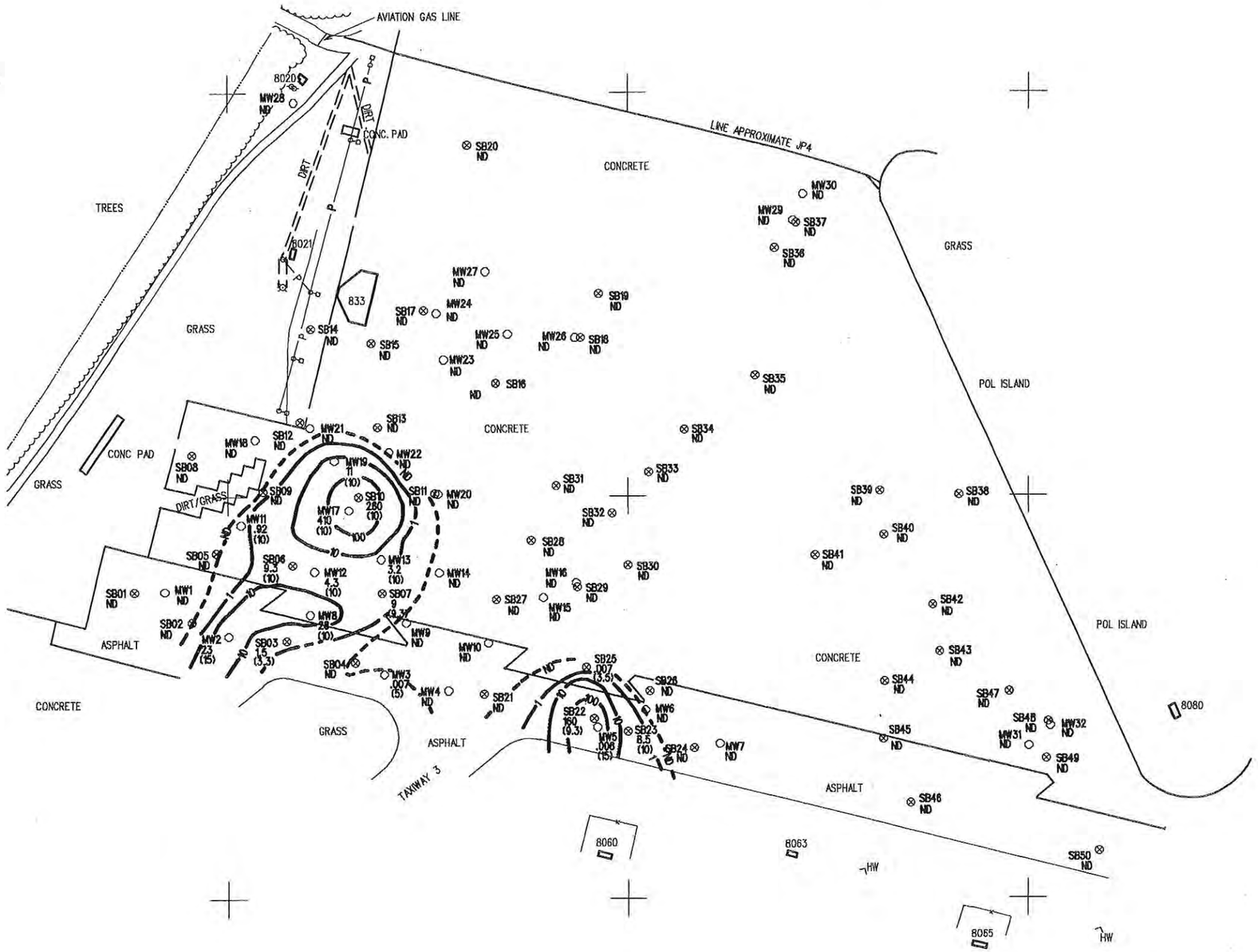
METCALF & EDDY

AIRFIELD LOCATION MAP
HUNTER ARMY AIRFIELD
SAVANNAH , GEORGIA

SOURCE: GARDEN CITY AND SAVANNAH, GA
USGS QUADRANGLE MAPS

FIGURE 1

REPLACE THIS PAGE WITH SCANNED MAP!



N

⊗ SOIL BORING LOCATION

○ MONITORING WELL LOCATION

260 - TOTAL BENZENE IN mg/kg
(10) - AT 10 FEET

ND - NOT DETECTED

DATES SAMPLED:
H833SB01 THROUGH H833SB50
(2-27-96 THROUGH 3-5-96)

H833WB01 THROUGH H833WB32
(4-22-96 THROUGH 4-29-96)

——— CONTAINMENT CONTOUR

- - - - - - ND CONTOUR

SCALE: 1" = 300'

300' 0 300'

FIGURE 3

U.S. ARMY
ENGINEER DISTRICT, SAVANNAH
CORPS OF ENGINEERS
SAVANNAH, GEORGIA

EXTENT OF BENZENE IN SOIL

HUNTER ARMY AIRFIELD SAVANNAH, GEORGIA

METCALF & EDDY

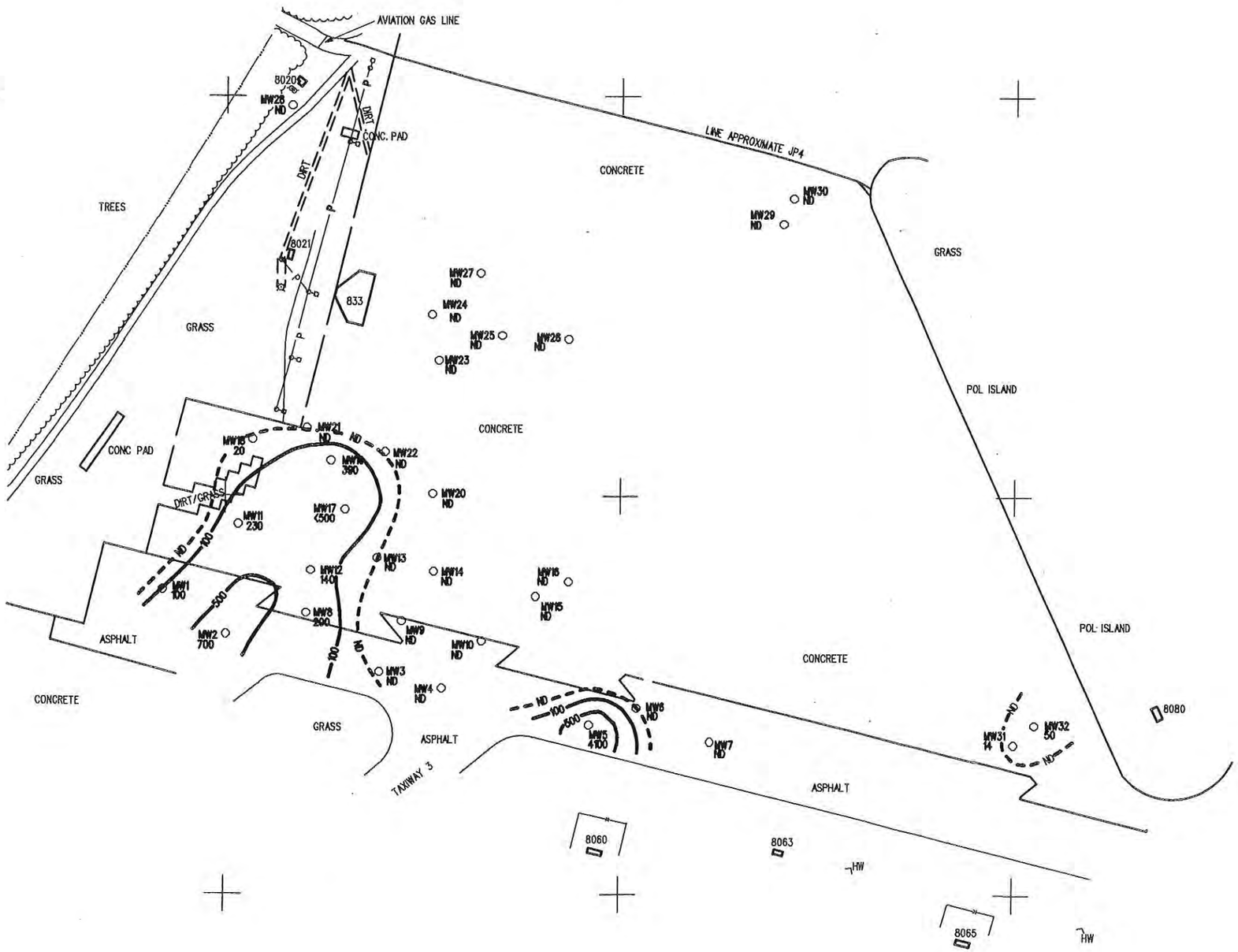
APPROVED:

SOURCE:

SCALE: DATE:

DATED: 09-18-96 BY: m.a. frank

LOC. p:\proj\17618HAF\C\CHHAF003.DGN



N

○ MONITORING WELL LOCATION
390 - TOTAL BENZENE IN ug/1
ND - NOT DETECTED
DATE SAMPLED: 5-21-96
THROUGH 5-23-96

——— BENZENE CONTAMINANT CONTOUR

– – – – – BENZENE ND CONTOUR

SCALE: 1" = 300'

300' 0 300'

FIGURE 4	U.S. ARMY ENGINEER DISTRICT, SAVANNAH CORPS OF ENGINEERS SAVANNAH, GEORGIA	
EXTENT OF BENZENE IN GROUNDWATER		
HUNTER ARMY AIRFIELD	SAVANNAH, GEORGIA	
METCALF & EDDY	APPROVED:	
	SOURCE:	
	SCALE:	DATE:

LOC: p:\proj\17618HAF\C\CHHAF006.DGN DATED: 07-18-96 BY: m.a. frank

2-mile radius from nearest point at the Storm Water Drainage System Area

Storm Water Drainage System Area

Site Location of Building 833

● 302

● 112

● 285

● 286

● 290

NORTH

SAVANNAH

HUNTER ARMY AIRFIELD

MATCHLINE

LEGEND

● WATER SUPPLY WELL

SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

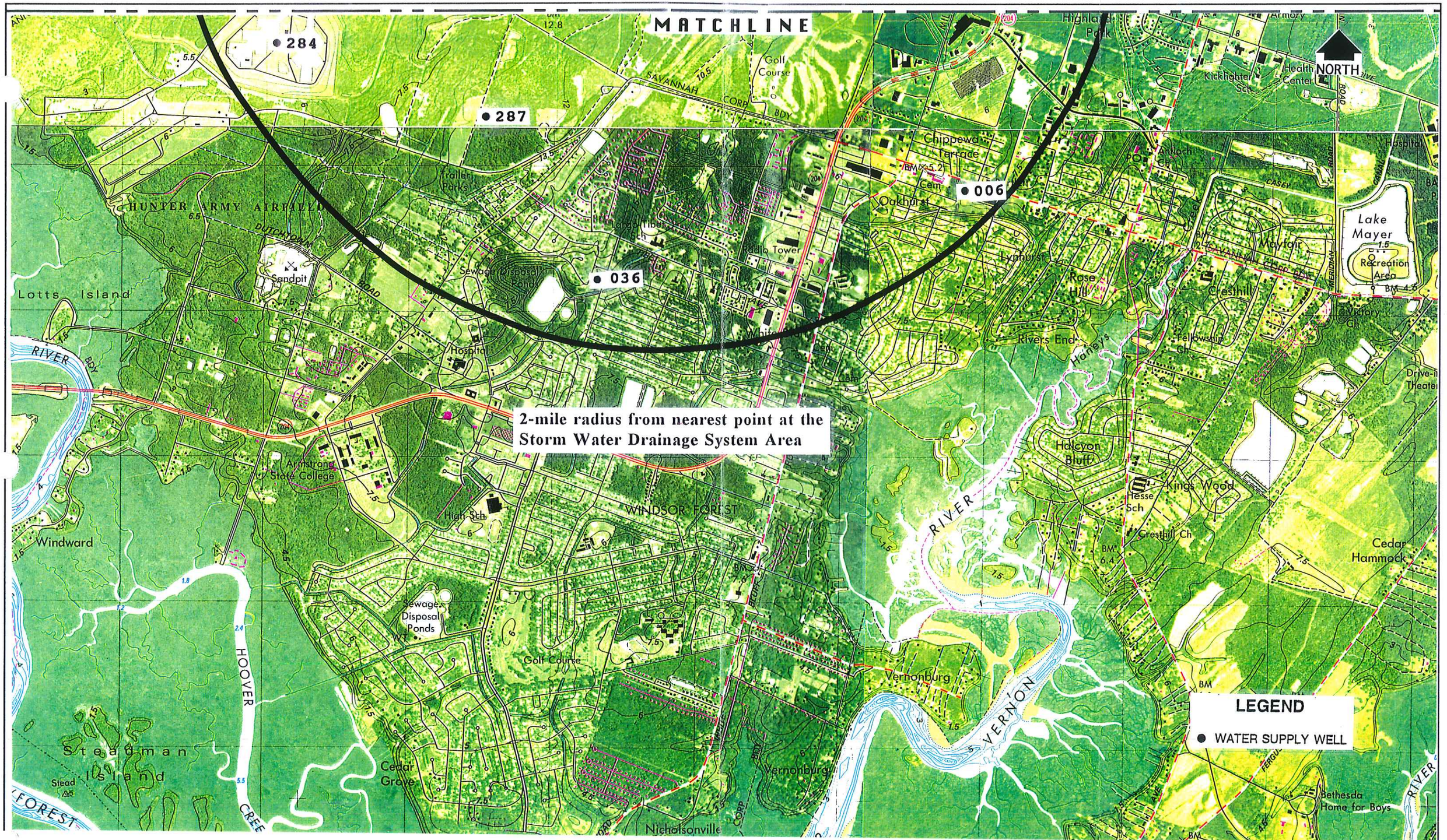
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 1.5 METERS, NATIONAL GEODETIC VERTICAL DATUM OF 1929

SOURCE:
SAVANNAH, GARDEN CITY
BURROUGHS & ISLE OF HOPE QUADS

PUBLIC POTABLE WATER SUPPLY WELLS WITHIN A 2 MILE RADIUS

FIGURE 5A



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

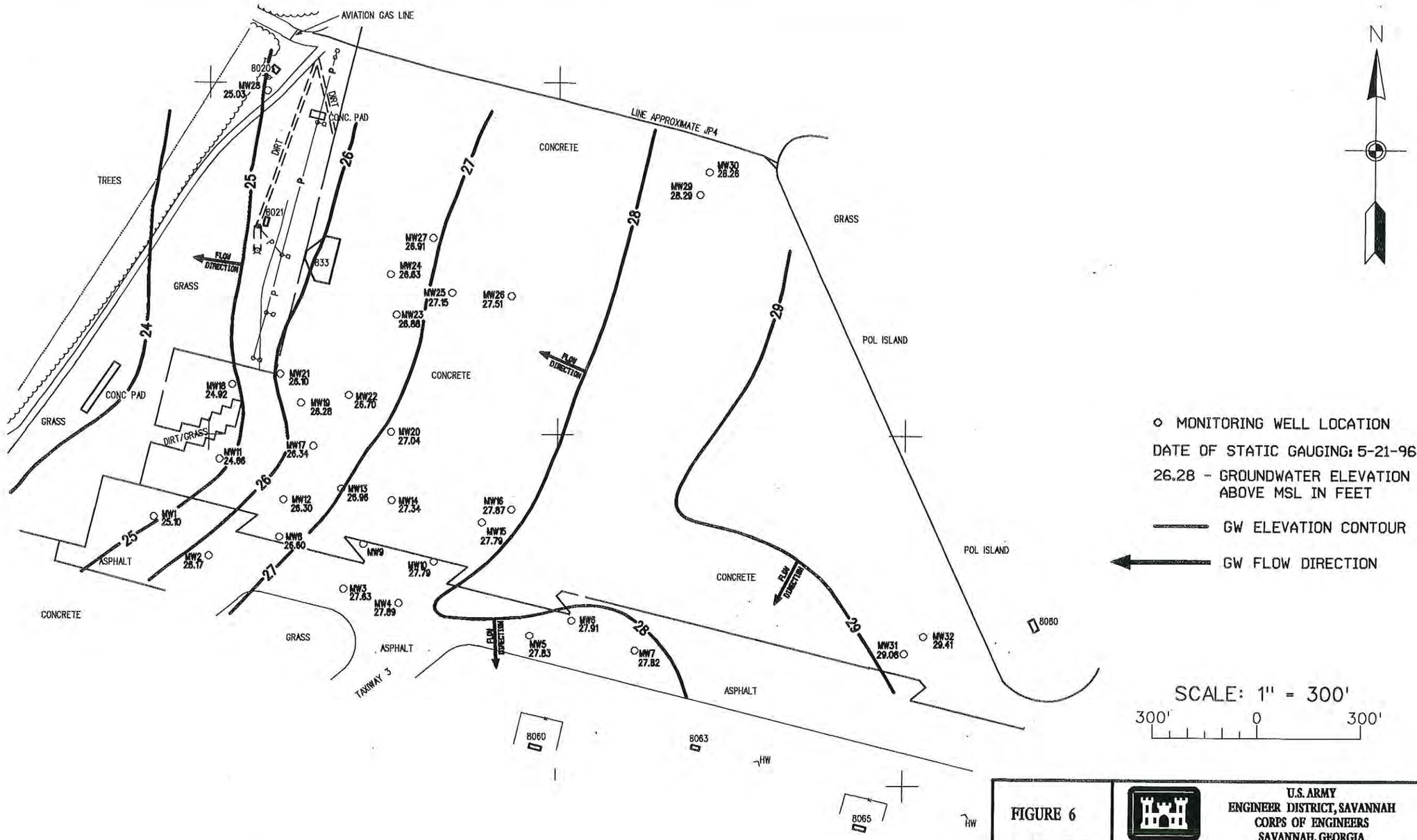
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 1.5 METERS, NATIONAL GEODETIC VERTICAL DATUM OF 1929

SOURCE:
SAVANNAH, GARDEN CITY
BURROUGHS & ISLE OF HOPE QUADS

PUBLIC POTABLE WATER SUPPLY WELLS WITHIN A 2 MILE RADIUS

FIGURE 5B



○ MONITORING WELL LOCATION

DATE OF STATIC GAUGING: 5-21-96

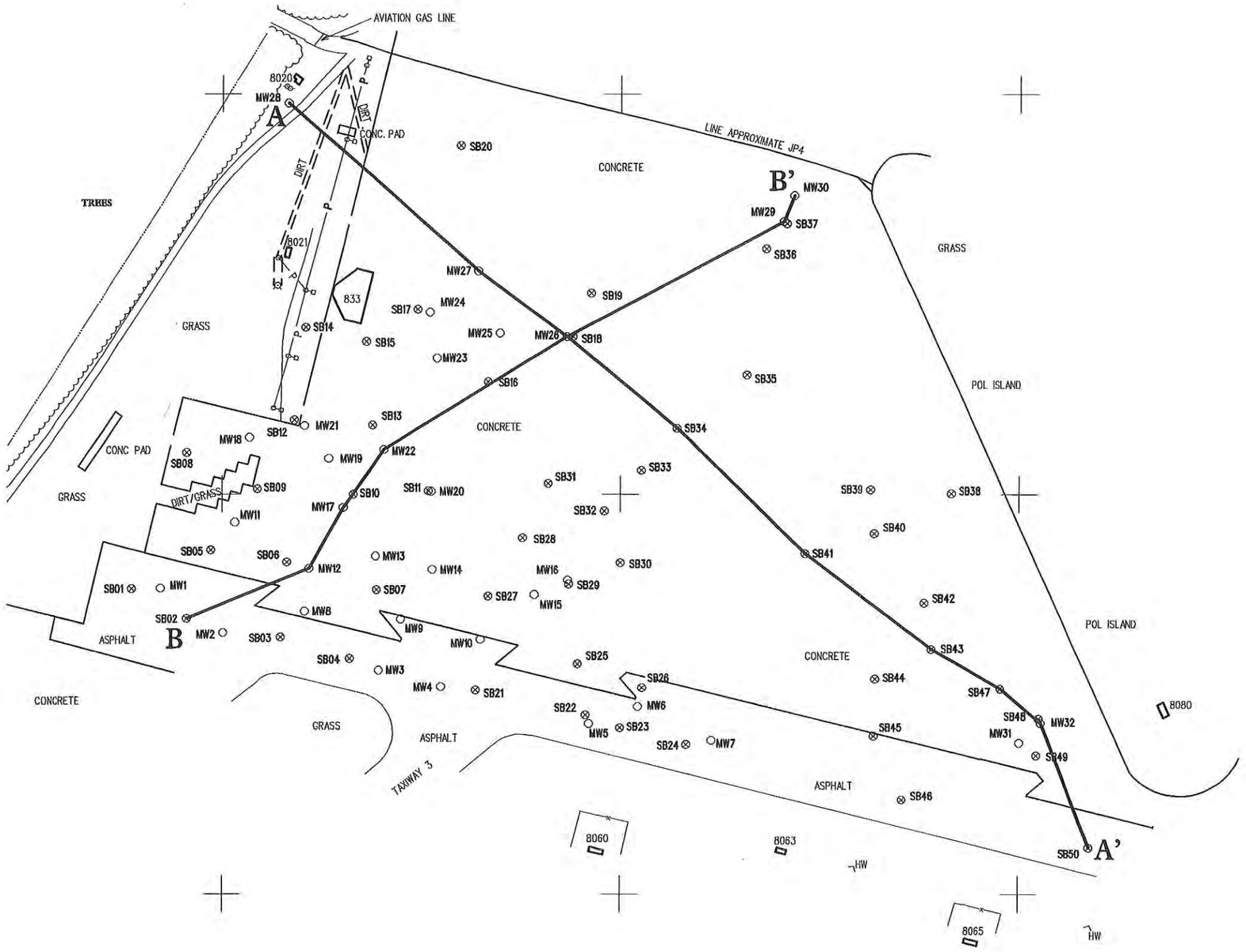
26.28 - GROUNDWATER ELEVATION ABOVE MSL IN FEET

GW ELEVATION CONTOUR

GW FLOW DIRECTION

FIGURE 6	U.S. ARMY ENGINEER DISTRICT, SAVANNAH CORPS OF ENGINEERS SAVANNAH, GEORGIA	
POTENTIOMETRIC SURFACE MAP		
HUNTER army AIRFIELD SAVANNAH, GEORGIA		
METCALF & EDDY	APPROVED:	
	SOURCE:	
	SCALE:	DATE:

LOC. p:\proj\17618HAF\C\CHHAF002.DGN DATED: 09-18-96 BY: m.a. frank



N

⊗ SOIL BORING LOCATION
○ MONITORING WELL LOCATION

SCALE: 1" = 300'

300' 0 300'

FIGURE 7

U.S. ARMY
ENGINEER DISTRICT, SAVANNAH
CORPS OF ENGINEERS
SAVANNAH, GEORGIA

CROSS-SECTION LOCATION MAP

HUNTER army AIRFIELD SAVANNAH, GEORGIA

METCALF & EDDY

APPROVED:	
SOURCE:	
SCALE:	DATE:

DATED: 07-12-96 BY: ma. frank

LOC. p:\proj\17618HAF\C\CHHAF008.DGN

LOC. p:\proj\17618haf\c\cxhaf006.DGN DATED: 06-17-96 BY: M.A. FRANK

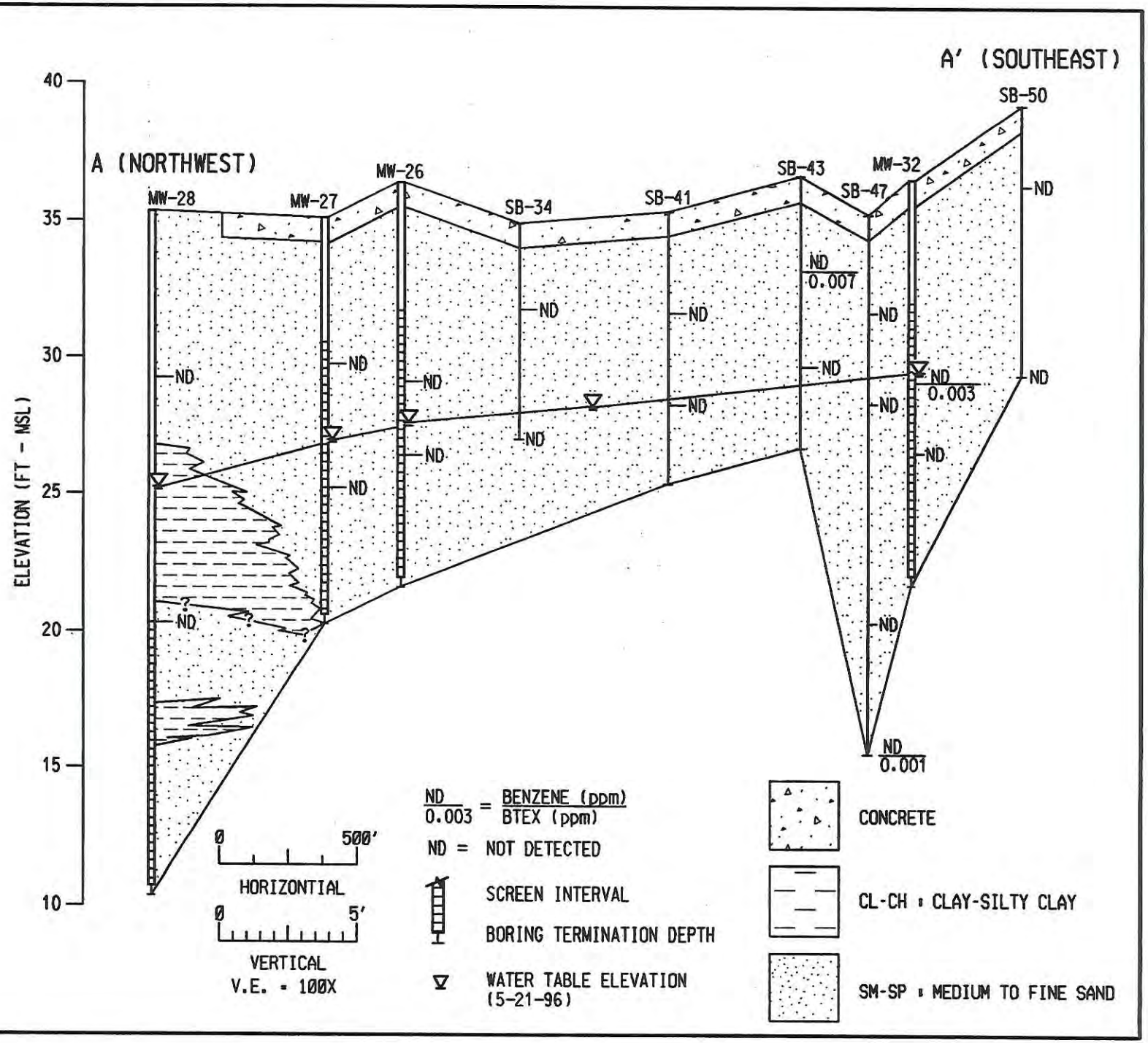
U.S. ARMY
ENGINEER DISTRICT, SAVANNAH
CORPS OF ENGINEERS
SAVANNAH, GEORGIA

HUNTER ARMY AIRFIELD
STORM WATER DRAINAGE SYSTEM
CROSS SECTION A-A'
SAVANNAH, GEORGIA

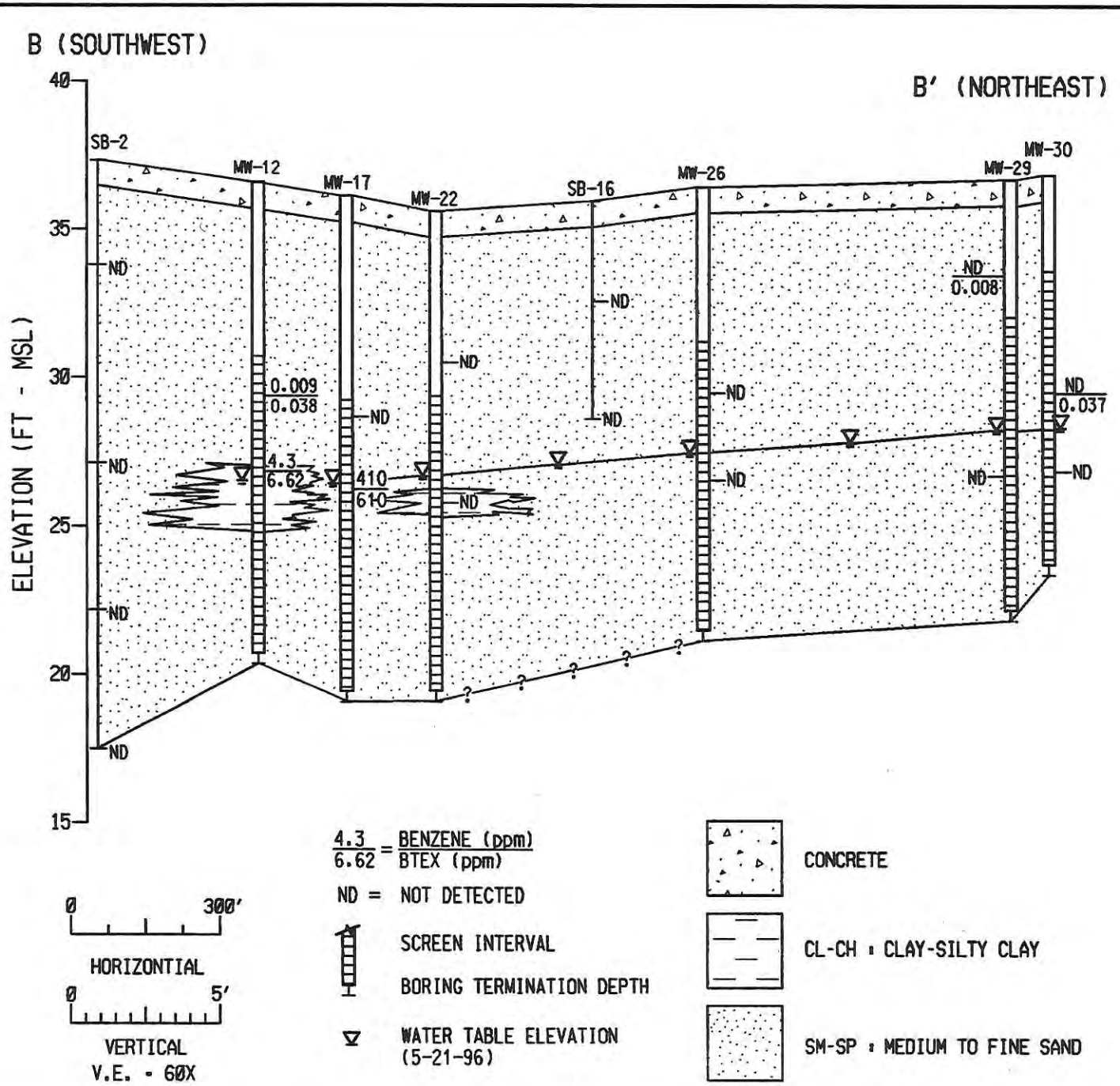
SCALE: AS SHOWN | DATE: | APPROVED:

METCALF & EDDY

FIGURE 8



LOC. p:\proj\17618haf\c\cxhaf005.DGN DATED: 06-17-96 BY: M.A. FRANK



U.S. ARMY ENGINEER DISTRICT, SAVANNAH
CORPS OF ENGINEERS
SAVANNAH, GEORGIA

HUNTER ARMY AIRFIELD
STORM WATER DRAINAGE SYSTEM
CROSS SECTION B-B'
SAVANNAH, GEORGIA

SCALE: AS SHOWN | DATE: | APPROVED:

METCALF & EDDY

FIGURE 9

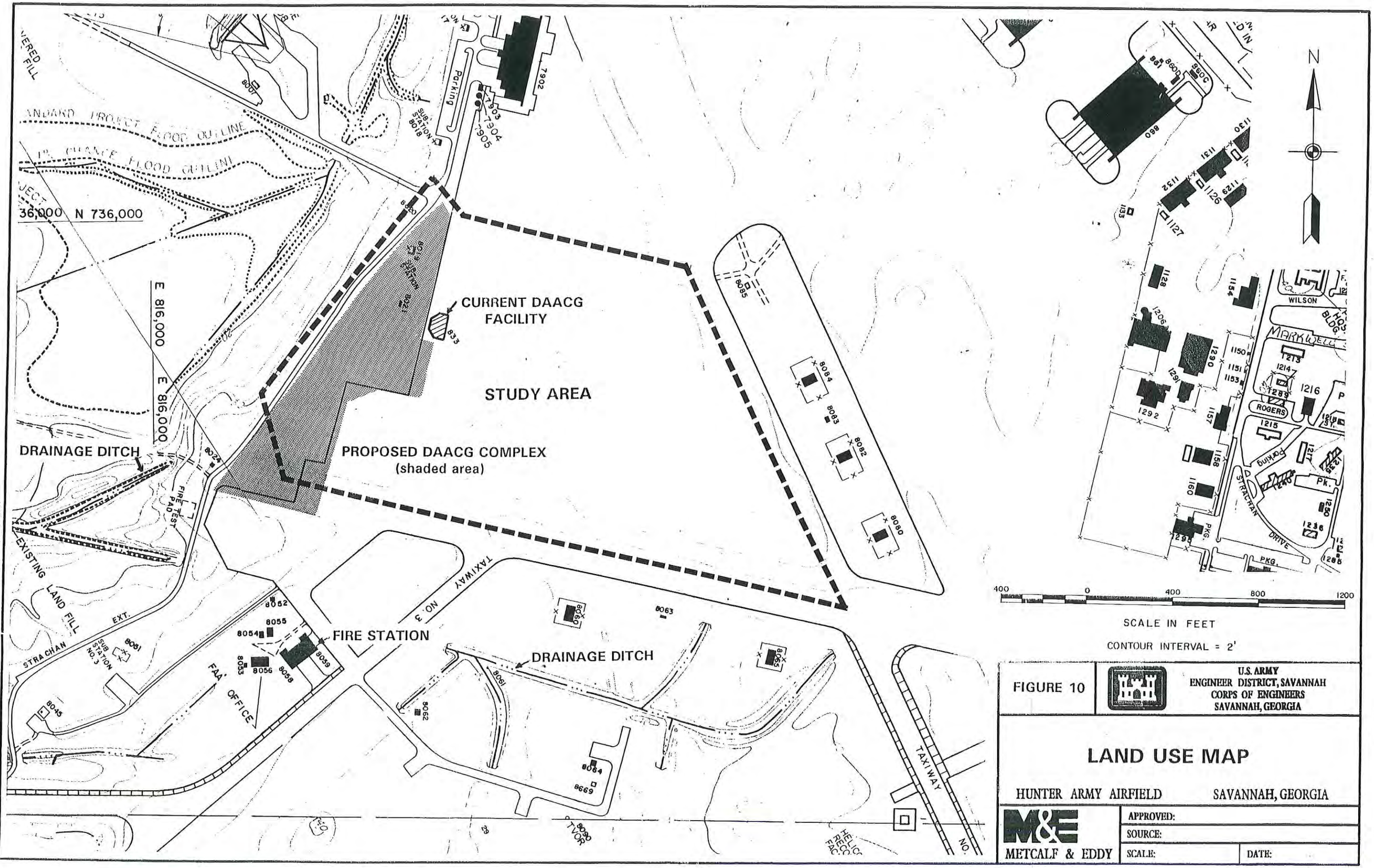


FIGURE 10	U.S. ARMY ENGINEER DISTRICT, SAVANNAH CORPS OF ENGINEERS SAVANNAH, GEORGIA	

LAND USE MAP

HUNTER ARMY AIRFIELD SAVANNAH, GEORGIA

M&E METCALF & EDDY	APPROVED:	
	SOURCE:	
	SCALE:	DATE:

DATED: 07-18-96 BY: m.e. frank

LOC: P:\proj\17618HAF\C\CHHAF003.DGN

TABLES

TABLE 1

SOIL SCREENING CRITERIA
DAACG FACILITY INVESTIGATION CAP Part–B
HUNTER ARMY AIRFIELD

CONTAMINANT	SOIL THRESHOLD LEVELS [1]
UNITS	mg/kg
VOLATILE ORGANICS	
BENZENE	0.12
ETHYL BENZENE	140
TOLUENE	500
TOTAL XYLENES	700
POLYNUCLEAR AROMATICS	
ANTHRACENE	NA [2]
BENZO(a)ANTHRACENE	NA [2]
BENZO(b)FLUORANTHENE	NA [2]
BENZO(k)FLUORANTHENE	NA [2]
BENZO(a)PYRENE	NA [2]
CHRYSENE	NA [2]
DIBENZ(a,h)ANTHRACENE	NA [2]
FLUORANTHENE	NA [2]
FLUORENE	NA [2]
INDENO(1,2,3–c,d)PYRENE	NA [2]
PHENANTHRENE	NA [2]
PYRENE	NA [2]

(1) Soil Threshold Levels – GA DNR EPD, Chapter 391–3–15–.09, UST Management, Table B for an Average or Higher Groundwater Pollution Susceptibility Area based on a distance of > 500 feet to a surface water body.
(2) NA – Not Applicable; The Health–based threshold level exceeds the expected soil concentration under free product condition.

TABLE 2

GROUNDWATER SCREENING CRITERIA
DAACG FACILITY INVESTIGATION CAP Part–B
HUNTER ARMY AIRFIELD

CONTAMINANT	GA EPD WQ STDS [1]
UNITS	ug/L
VOLATILE ORGANICS	
BENZENE	71.28
ETHYL BENZENE	28,718
TOLUENE	200,000
TOTAL XYLENES	–
POLYNUCLEAR AROMATICS	
ACENAPTHENE	–
ACENAPHTHYLENE	–
ANTHRACENE	110,000
BENZO(a)ANTHRACENE	0.0311
BENZO(b)FLUORANTHENE	–
BENZO(k)FLUORANTHENE	0.0311
BENZO(a)PYRENE	0.0311
BENZO(g,h,i)PERYLENE	–
CHRYSENE	0.0311
DIBENZ(a,h)ANTHRACENE	0.0311
FLUORANTHENE	370
FLUORENE	14,000
INDENO(1,2,3–c,d)PYRENE	0.0311
1–METHYLNAPHTHALENE	–
2–METHYLNAPHTHALENE	–
NAPHTHALENE	–
PHENANTHRENE	–
PYRENE	11,000

(–) No Level is listed
(1) GA EPD WQ STDS – Georgia DNR, EPD, Water Quality Control, Instream Water Quality Standards, Chapter 391–3–6–.03, section 5(d)(ii)&(iii), 10/23/95

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB01	H833SB01	H833SB02	H833SB02	H833SB02
	SAMPLE ID		H833-SB0101	H833-SB0102	H833-SB0201	H833-SB0202	H833-SB0203
	DATE		03/05/96	03/05/96	02/27/96	02/27/96	02/27/96
	DEPTH (ft)	GA-SSC	3.30	9.30	3.50	10.00	15.00
Benzene		0.120	<0.0053	<0.0053	<0.0053	<0.0055	<0.0064
Ethylbenzene		140	<0.0053	<0.0053	<0.0053	<0.0055	<0.0064
Toluene		500	<0.0053	<0.0053	<0.0053	<0.0055	<0.0064
Xylene (total)		700	<0.0053	<0.0053	<0.0053	<0.0055	<0.0064
Acenaphthylene			<0.35	<0.35	<0.35	<0.36	<0.42
Benzo(a)pyrene			<0.35	<0.35	<0.35	0.82 J	<0.42
Benzo(b,k)fluoranthene			<0.35	<0.35	<0.35	2.1	<0.42
Benzo(ghi)perylene			<0.35	<0.35	<0.35	0.91	<0.42
Chrysene + Benzo(a)anthracene			<0.35	<0.35	<0.35	2.4	<0.42
Fluoranthene			<0.35	<0.35	<0.35	2.1	<0.42
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.35	<0.35	<0.35	0.92	<0.42
Naphthalene			<0.35	<0.35	<0.35	<0.36	<0.42
Phenanthrene + Anthracene			<0.35	<0.35	<0.35	1.3	<0.42
Pyrene			<0.35	<0.35	<0.35	1.9 J	<0.42
2-Methylnaphthalene			<0.35	<0.35	<0.35	<0.36	<0.42
GRO			<0.26	<0.26	<0.26 J	<0.27 J	<0.32
DRO			<11	<10	16 J	25 J	<13 J

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB02	H833SB03	H833SB03	H833SB04	H833SB04
	SAMPLE ID		H833-SB0204	H833-SB0301	H833-SB0302	H833-SB0401	H833-SB0402
	DATE		02/27/96	03/05/96	03/05/96	02/27/96	02/27/96
	DEPTH (ft)	GA-SSC	20.00	3.30	9.30	3.50	10.00
Benzene		0.120	<0.0067	[1.5]	<0.47	<0.0057	<0.0054
Ethylbenzene		140	<0.0067	1.0	6.0 J	<0.0057	<0.0054
Toluene		500	<0.0067	2.2	11 J	0.0071	<0.0054
Xylene (total)		700	<0.0067	3.2	13 J	0.0088	<0.0054
Acenaphthylene			<0.44	<1.7 R	<0.39	<0.38	<0.36
Benzo(a)pyrene			<0.44	4.2 J	<0.39	<0.38	<0.36
Benzo(b,k)fluoranthene			<0.44	4.9 J	<0.39	<0.38	<0.36
Benzo(ghi)perylene			<0.44	4.3 J	<0.39	<0.38	0.54
Chrysene + Benzo(a)anthracene			<0.44	8.6 J	<0.39	<0.38	<0.36
Fluoranthene			<0.44	4.0 J	<0.39	<0.38	<0.36
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.44	2.7 J	<0.39	<0.38	<0.36
Naphthalene			<0.44	<1.7 R	<0.39	<0.38	<0.36
Phenanthrene + Anthracene			<0.44	2.7 J	<0.39	<0.38	<0.36
Pyrene			<0.44	7.4 J	<0.39	<0.38	<0.36
2-Methylnaphthalene			<0.44	<1.7 R	<0.39	<0.38	<0.36
GRO			<0.33	51 J	600	<0.29	<0.27 J
DRO			<13 J	84	46	16 J	<11 J

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB05	H833SB05	H833SB06	H833SB06	H833SB06
	SAMPLE ID		H833-SB0501	H833-SB0502RE	H833-SB0601	H833-SB0602	H833-SB0603
	DATE		03/05/96	03/05/96	02/27/96	02/27/96	02/27/96
	DEPTH (ft)	GA-SSC	3.30	9.30	3.50	10.00	15.00
Benzene		0.120	<0.0054	<0.0055	<0.0053	[9.3]	<0.0063
Ethylbenzene		140	<0.0054	<0.0055	<0.0053	4.2	<0.0063
Toluene		500	<0.0054	<0.0055	<0.0053	<0.40	<0.0063
Xylene (total)		700	<0.0054	<0.0055	<0.0053	2.1	<0.0063
Acenaphthylene			<0.35	<0.36	<0.35	<0.38	<0.42
Benzo(a)pyrene			<0.35	<0.36	<0.35	<0.38	<0.42
Benzo(b,k)fluoranthene			<0.35	<0.36	<0.35	<0.38	<0.42
Benzo(ghi)perylene			<0.35	<0.36	<0.35	<0.38	<0.42
Chrysene + Benzo(a)anthracene			<0.35	<0.36	<0.35	<0.38	<0.42
Fluoranthene			<0.35	<0.36	<0.35	<0.38	<0.42
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.35	<0.36	<0.35	<0.38	<0.42
Naphthalene			<0.35	<0.36	<0.35	<0.38	<0.42
Phenanthrene + Anthracene			<0.35	<0.36	<0.35	<0.35	<0.35
Pyrene			<0.35	<0.36	<0.35	<0.38	<0.42
2-Methylnaphthalene			<0.35	<0.36	<0.35	<0.38	<0.42
GRO			<0.27 J	<0.27	<0.26	180	<0.32
DRO			40	14	<10 J	22 J	<13 J

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed
[] = Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB06	H833SB07	H833SB07	H833SB08	H833SB08
	SAMPLE ID		H833-SB0604	H833-SB0701	H833-SB0702	H833-SB0801	H833-SB0802
	DATE		02/27/96	02/28/96	02/28/96	03/05/96	03/05/96
	DEPTH (ft)	GA-SSC	20.00	3.30	9.30	3.30	9.30
Benzene		0.120	<0.0065	<0.0053	[9.0]	<0.0054	<0.0053
Ethylbenzene		140	<0.0065	<0.0053	3.6	<0.0054	<0.0053
Toluene		500	<0.0065	<0.0053	<0.49	<0.0054	<0.0053
Xylene (total)		700	<0.0065	<0.0053	2.6	<0.0054	<0.0053
Acenaphthylene			<0.43	<0.35	<0.40	<0.36	<0.35
Benzo(a)pyrene			<0.43	<0.35	<0.40	<0.36	<0.35
Benzo(b,k)fluoranthene			<0.43	<0.35	<0.40	<0.36	<0.35
Benzo(ghi)perylene			<0.43	<0.35	<0.40	<0.36	<0.35
Chrysene + Benzo(a)anthracene			<0.43	<0.35	<0.40	<0.36	<0.35
Fluoranthene			<0.43	<0.35	<0.40	<0.36	<0.35
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.43	<0.35	<0.40	<0.36	<0.35
Naphthalene			<0.43	<0.35	<0.40	<0.36	<0.35
Phenanthrene + Anthracene			<0.43	<0.35	<0.40	<0.36	<0.35
Pyrene			<0.43	<0.35	<0.40	<0.36	<0.35
2-Methylnaphthalene			<0.43	<0.35	<0.40	<0.36	<0.35
GRO			<0.32	<0.26	170	<0.27 J	<0.26 J
DRO			<13 J	<11	32	<11	<11

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB09	H833SB09	H833SB10	H833SB10	H833SB10
	SAMPLE ID		H833-SB0901	H833-SB0902	H833-SB1001	H833-SB1002	H833-SB1003
	DATE		02/29/96	03/04/96	02/28/96	02/28/96	02/28/96
	DEPTH (ft)	GA-SSC	3.50	7.00	3.50	10.00	15.00
Benzene		0.120	<0.0056	<0.0053	<0.0054	[260] J	[0.19]
Ethylbenzene		140	<0.0056	<0.0053	<0.0054	76 J	0.029
Toluene		500	<0.0056	<0.0053	<0.0054	140 J	0.019
Xylene (total)		700	<0.0056	<0.0053	<0.0054	200 J	0.052
Acenaphthylene			<0.37	<0.35	<0.35	<0.39	<0.41
Benzo(a)pyrene			<0.37	<0.35	<0.35	<0.39	<0.41
Benzo(b,k)fluoranthene			<0.37	<0.35	<0.35	<0.39	<0.41
Benzo(ghi)perylene			<0.37	<0.35	<0.35	<0.39	<0.41
Chrysene + Benzo(a)anthracene			<0.37	<0.35	<0.35	<0.39	<0.41
Fluoranthene			<0.37	<0.35	<0.35	<0.39	<0.41
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.37	<0.35	<0.35	<0.39	<0.41
Naphthalene			<0.37	<0.35	<0.35	0.68	<0.41
Phenanthrene + Anthracene			<0.37	<0.35	<0.35	<0.39	<0.41
Pyrene			<0.37	<0.35	<0.35	<0.39	<0.41
2-Methylnaphthalene			<0.37	<0.35	<0.35	0.60	<0.41
GRO			<0.28	<0.26 J	<0.27	3600 J	1.1
DRO			<11	<10	<11	470	12

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed
[] = Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB10	H833SB11	H833SB11	H833SB12	H833SB12
	SAMPLE ID		H833-SB1004	H833-SB1101	H833-SB1102	H833-SB1201	H833-SB1202
	DATE		02/28/96	02/28/96	02/28/96	02/28/96	02/28/96
	DEPTH (ft)	GA-SSC	20.00	3.30	7.30	2.00	8.00
Benzene		0.120	[0.22]	<0.0054	<0.0057	<0.0055	<0.0057
Ethylbenzene		140	0.046	<0.0054	<0.0057	<0.0055	<0.0057
Toluene		500	0.034	<0.0054	<0.0057	<0.0055	<0.0057
Xylene (total)		700	0.20	<0.0054	<0.0057	<0.0055	<0.0057
Acenaphthylene			<0.42	<0.35	<0.38	<0.36	<0.38
Benzo(a)pyrene			<0.42	<0.35	<0.38	<0.36	<0.38
Benzo(b,k)fluoranthene			<0.42	0.38	<0.38	<0.36	<0.38
Benzo(ghi)perylene			<0.42	<0.35	<0.38	<0.36	<0.38
Chrysene + Benzo(a)anthracene			<0.42	0.39	<0.38	<0.36	3.8
Fluoranthene			<0.42	<0.35	<0.38	<0.36	<0.38
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.42	<0.35	<0.38	<0.36	<0.38
Naphthalene			<0.42	<0.35	<0.38	<0.36	<0.38
Phenanthrene + Anthracene			<0.42	<0.35	<0.38	<0.36	<0.38
Pyrene			<0.42	<0.35	<0.38	<0.36	<0.38
2-Methylnaphthalene			<0.42	<0.35	<0.38	<0.36	<0.38
GRO			2.5 J	<0.27	<0.29 J	<0.27	<0.29
DRO			<13	<11	<11	<11	<11

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB13	H833SB13	H833SB14	H833SB14	H833SB15
	SAMPLE ID		H833-SB1301	H833-SB1302	H833-SB1401	H833-SB1402	H833-SB1501
	DATE		02/28/96	02/28/96	02/29/96	02/29/96	02/29/96
	DEPTH (ft)	GA-SSC	3.30	7.30	2.00	8.00	3.50
Benzene		0.120	<0.0054	<0.0055	<0.0053	<0.0062	<0.0053
Ethylbenzene		140	<0.0054	<0.0055	<0.0053	<0.0062	<0.0053
Toluene		500	<0.0054	<0.0055	<0.0053	<0.0062	<0.0053
Xylene (total)		700	<0.0054	<0.0055	<0.0053	<0.0062	<0.0053
Acenaphthylene			<0.36	<0.36	<0.35	<0.41	<0.35
Benzo(a)pyrene			<0.36	<0.36	<0.35	<0.41	<0.35
Benzo(b,k)fluoranthene			<0.36	<0.36	<0.35	<0.41	<0.35
Benzo(ghi)perylene			<0.36	<0.36	<0.35	<0.41	<0.35
Chrysene + Benzo(a)anthracene			<0.36	<0.36	<0.35	<0.41	<0.35
Fluoranthene			<0.36	<0.36	<0.35	<0.41	<0.35
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.36	<0.36	<0.35	<0.41	<0.35
Naphthalene			<0.36	<0.36	<0.35	<0.41	<0.35
Phenanthrene + Anthracene			<0.36	<0.36	<0.35	<0.41	<0.35
Pyrene			<0.36	<0.36	<0.35	<0.41	<0.35
2-Methylnaphthalene			<0.36	<0.36	<0.35	<0.41	<0.35
GRO			<0.27	<0.27	<0.26	<0.31	<0.26 J
DRO			<11	<11	<11	<12	<10

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB15	H833SB16	H833SB16	H833SB17	H833SB17
	SAMPLE ID		H833-SB1502	H833-SB1601	H833-SB1602	H833-SB1701	H833-SB1702
	DATE		02/29/96	02/29/96	02/29/96	02/29/96	02/29/96
	DEPTH (ft)	GA-SSC	10.00	3.30	7.30	3.50	10.00
Benzene		0.120	<0.0066	<0.0052	<0.0058	<0.0055	<0.0062
Ethylbenzene		140	<0.0066	<0.0052	<0.0058	<0.0055	<0.0062
Toluene		500	0.0081	<0.0052	<0.0058	<0.0055	<0.0062
Xylene (total)		700	0.010	<0.0052	<0.0058	<0.0055	<0.0062
Acenaphthylene			<0.43	<0.34	<0.38	<1.8	<0.41
Benzo(a)pyrene			<0.43	<0.34	<0.38	12	<0.41
Benzo(b,k)fluoranthene			<0.43	<0.34	<0.38	20	<0.41
Benzo(ghi)perylene			<0.43	<0.34	<0.38	7.7	<0.41
Chrysene + Benzo(a)anthracene			<0.43	<0.34	<0.38	27	<0.41
Fluoranthene			<0.43	<0.34	<0.38	24	<0.41
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.43	<0.34	<0.38	10	<0.41
Naphthalene			<0.43	<0.34	<0.38	<1.8	<0.41
Phenanthrene + Anthracene			<0.43	<0.34	<0.38	16	<0.41
Pyrene			<0.43	<0.34	<0.38	14	<0.41
2-Methylnaphthalene			<0.43	<0.34	<0.38	<1.8	<0.41
GRO			<0.33 J	<0.26	<0.29	<0.27 J	<0.31
DRO			<13	<10	<12	300 J	<12

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB18	H833SB18	H833SB19	H833SB19	H833SB20
	SAMPLE ID		H833-SB1801	H833-SB1802	H833-SB1901	H833-SB1902	H833-SB2001
	DATE		02/29/96	02/29/96	02/29/96	02/29/96	02/29/96
	DEPTH (ft)	GA-SSC	3.30	7.30	3.50	10.00	3.10
Benzene		0.120	<0.0054	<0.0056	<0.0054	<0.0062	<0.0054
Ethylbenzene		140	<0.0054	<0.0056	<0.0054	<0.0062	<0.0054
Toluene		500	<0.0054	<0.0056	<0.0054	<0.0062	<0.0054
Xylene (total)		700	<0.0054	<0.0056	<0.0054	<0.0062	<0.0054
Acenaphthylene			0.98	<0.37	<0.36	<0.41	<0.35
Benzo(a)pyrene			6.0	<0.37	<0.36	<0.41	<0.35
Benzo(b,k)fluoranthene			9.4	<0.37	<0.36	<0.41	<0.35
Benzo(ghi)perylene			4.4	<0.37	<0.36	<0.41	<0.35
Chrysene + Benzo(a)anthracene			8.2	<0.37	<0.36	<0.41	<0.35
Fluoranthene			4.6	<0.37	<0.36	<0.41	<0.35
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			4.9	<0.37	<0.36	<0.41	<0.35
Naphthalene			<0.72	<0.37	<0.36	<0.41	<0.35
Phenanthrene + Anthracene			<0.72	<0.37	<0.36	<0.41	<0.35
Pyrene			4.6	<0.37	<0.36	<0.41	<0.35
2-Methylnaphthalene			<0.72	<0.37	<0.36	<0.41	<0.35
GRO			<0.27	<0.28	<0.27	<0.31	<0.27
DRO			25	<11	31	<12	<11

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB20	H833SB21	H833SB21	H833SB22	H833SB22
	SAMPLE ID		H833-SB2002	H833-SB2101	H833-SB2102	H833-SB2201	H833-SB2202
	DATE		02/29/96	02/29/96	02/29/96	02/29/96	02/29/96
	DEPTH (ft)	GA-SSC	7.10	3.50	10.00	3.30	9.30
Benzene		0.120	<0.0055	<0.0054	<0.0062	[13]	[160] J
Ethylbenzene		140	<0.0055	0.019 J	<0.0062	2.2	31 J
Toluene		500	<0.0055	0.082 J	<0.0062	0.61	43 J
Xylene (total)		700	<0.0055	0.076 J	<0.0062	8.2	74 J
Acenaphthylene			<0.36	<0.35	<0.41	<0.36	<0.39
Benzo(a)pyrene			<0.36	<0.35	<0.41	<0.36	<0.39
Benzo(b,k)fluoranthene			<0.36	<0.35	<0.41	<0.36	<0.39
Benzo(ghi)perylene			<0.36	0.58	<0.41	<0.36	<0.39
Chrysene + Benzo(a)anthracene			<0.36	<0.35	<0.41	<0.36	<0.39
Fluoranthene			<0.36	<0.35	<0.41	<0.36	<0.39
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.36	<0.35	<0.41	<0.36	<0.39
Naphthalene			<0.36	<0.35	<0.41	<0.36	<0.39
Phenanthrene + Anthracene			<0.36	<0.35	<0.41	<0.36	<0.39
Pyrene			<0.36	<0.35	<0.41	<0.36	<0.39
2-Methylnaphthalene			<0.36	<0.35	<0.41	<0.36	<0.39
GRO			<0.27 J	<0.27 J	<0.31	200	1900 J
DRO			<11	<11	<12	16	88

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB23	H833SB23	H833SB23	H833SB23	H833SB24
	SAMPLE ID		H833-SB2301	H833-SB2302	H833-SB2303	H833-SB2304	H833-SB2401
	DATE		02/28/96	02/28/96	02/28/96	02/28/96	02/29/96
	DEPTH (ft)	GA-SSC	3.50	10.00	15.00	20.00	3.30
Benzene		0.120	[0.34]	[8.5] J	<0.0062	0.091	<0.0056
Ethylbenzene		140	0.027	6.1 J	<0.0062	0.026	<0.0056
Toluene		500	<0.0056	1.1 J	<0.0062	<0.0063	0.013
Xylene (total)		700	0.047	12 J	0.025	0.028	0.012
Acenaphthylene			<0.37	<0.36	<0.41	<0.42	<0.37
Benzo(a)pyrene			<0.37	<0.36	<0.41	<0.42	<0.37
Benzo(b,k)fluoranthene			<0.37	<0.36	<0.41	<0.42	<0.37
Benzo(ghi)perylene			0.84	<0.36	<0.41	<0.42	<0.37
Chrysene + Benzo(a)anthracene			<0.37	<0.36	<0.41	<0.42	<0.37
Fluoranthene			<0.37	<0.36	<0.41	<0.42	<0.37
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.37	<0.36	<0.41	<0.42	<0.37
Naphthalene			<0.37	<0.36	<0.41	<0.42	<0.37
Phenanthrene + Anthracene			<0.37	<0.36	<0.41	<0.42	<0.37
Pyrene			<0.37	<0.36	<0.41	<0.42	<0.37
2-Methylnaphthalene			<0.37	<0.36	<0.41	<0.42	<0.37
GRO			<0.28	210 J	<0.31	1.1	<0.28 J
DRO			17	23	<12	<13	<11

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB24	H833SB25	H833SB25	H833SB26	H833SB26
	SAMPLE ID		H833-SB2402	H833-SB2501	H833-SB2502	H833-SB2601	H833-SB2602
	DATE		02/29/96	02/29/96	02/29/96	03/04/96	03/04/96
	DEPTH (ft)	GA-SSC	9.30	3.50	10.00	3.50	10.00
Benzene		0.120	<0.0057	0.0067	<0.0062	<0.0056	<0.0060
Ethylbenzene		140	<0.0057	<0.0054	<0.0062	0.0095	<0.0060
Toluene		500	<0.0057	<0.0054	<0.0062	<0.0056	<0.0060
Xylene (total)		700	<0.0057	<0.0054	<0.0062	0.039	<0.0060
Acenaphthylene			<0.38	<0.36	<0.41	<0.37	<0.40
Benzo(a)pyrene			<0.38	<0.36	<0.41	<0.37	<0.40
Benzo(b,k)fluoranthene			<0.38	<0.36	<0.41	<0.37	<0.40
Benzo(ghi)perylene			<0.38	<0.36	<0.41	<0.37	<0.40
Chrysene + Benzo(a)anthracene			<0.38	<0.36	<0.41	<0.37	<0.40
Fluoranthene			<0.38	<0.36	<0.41	<0.37	<0.40
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.38	<0.36	<0.41	<0.37	<0.40
Naphthalene			<0.38	<0.36	<0.41	<0.37	<0.40
Phenanthrene + Anthracene			<0.38	<0.36	<0.41	<0.37	<0.40
Pyrene			<0.38	<0.36	<0.41	<0.37	<0.40
2-Methylnaphthalene			<0.38	<0.36	<0.41	<0.37	<0.40
GRO			<0.29 J	<0.27	<0.31	0.71	<0.30
DRO			<12	<11	<12	<11	<12

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB27	H833SB27	H833SB28	H833SB28	H833SB29
	SAMPLE ID		H833-SB2701	H833-SB2702	H833-SB2801	H833-SB2802	H833-SB2901
	DATE		02/29/96	02/29/96	02/29/96	02/29/96	02/28/96
	DEPTH (ft)	GA-SSC	3.50	10.00	3.20	7.20	3.50
Benzene		0.120	<0.0056	<0.0059	<0.0054	<0.0059	<0.0057
Ethylbenzene		140	<0.0056	<0.0059	<0.0054	<0.0059	<0.0057
Toluene		500	<0.0056	<0.0059	<0.0054	<0.0059	<0.0057
Xylene (total)		700	<0.0056	<0.0059	<0.0054	<0.0059	0.0067
Acenaphthylene			<0.37	<0.39	<0.36	<0.39	<0.38
Benzo(a)pyrene			<0.37	<0.39	<0.36	<0.39	<0.38
Benzo(b,k)fluoranthene			<0.37	<0.39	<0.36	<0.39	<0.38
Benzo(ghi)perylene			<0.37	<0.39	<0.36	<0.39	<0.38
Chrysene + Benzo(a)anthracene			<0.37	<0.39	<0.36	<0.39	<0.38
Fluoranthene			<0.37	<0.39	<0.36	<0.39	<0.38
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.37	<0.39	<0.36	<0.39	<0.38
Naphthalene			<0.37	<0.39	<0.36	<0.39	<0.38
Phenanthrene + Anthracene			<0.37	<0.39	<0.36	<0.39	<0.38
Pyrene			<0.37	<0.39	<0.36	<0.39	<0.38
2-Methylnaphthalene			<0.37	<0.39	<0.36	<0.39	<0.38
GRO			<0.28	<0.29	<0.27 J	<0.29	<0.29
DRO			<11	<12	<11	<12	<11

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB29	H833SB29	H833SB29	H833SB30	H833SB30
	SAMPLE ID		H833-SB2902	H833-SB2903	H833-SB2904	H833-SB3001	H833-SB3002
	DATE		02/28/96	02/28/96	02/28/96	03/04/96	03/04/96
	DEPTH (ft)	GA-SSC	10.00	15.00	20.00	3.60	10.00
Benzene		0.120	<0.0057	<0.0063	<0.0062	<0.0059	<0.0060
Ethylbenzene		140	<0.0057	<0.0063	<0.0062	<0.0059	<0.0060
Toluene		500	<0.0057	<0.0063	<0.0062	<0.0059	<0.0060
Xylene (total)		700	0.0077	<0.0063	<0.0062	<0.0059	<0.0060
Acenaphthylene			1.3	<0.42	<0.41	<0.39	<0.40
Benzo(a)pyrene			3.8	<0.42	<0.41	<0.39	<0.40
Benzo(b,k)fluoranthene			5.1	<0.42	<0.41	<0.39	<0.40
Benzo(ghi)perylene			2.9	<0.42	<0.41	<0.39	<0.40
Chrysene + Benzo(a)anthracene			6.7	<0.42	<0.41	<0.39	<0.40
Fluoranthene			1.3	<0.42	<0.41	<0.39	<0.40
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			1.9	<0.42	<0.41	<0.39	<0.40
Naphthalene			<0.76	<0.42	<0.41	<0.39	<0.40
Phenanthrene + Anthracene			<0.76	<0.42	<0.41	<0.39	<0.40
Pyrene			3.0	<0.42	<0.41	<0.39	<0.40
2-Methylnaphthalene			<0.76	<0.42	<0.41	<0.39	<0.40
GRO			<0.29	<0.32	<0.31	<0.29	<0.30
DRO			33	<13	<12	<12	<12

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB31	H833SB31	H833SB32	H833SB32	H833SB32
	SAMPLE ID		H833-SB3101	H833-SB3102	H833-SB3201	H833-SB3202	H833-SB3203
	DATE		03/04/96	03/04/96	02/28/96	02/29/96	02/29/96
	DEPTH (ft)	GA-SSC	3.50	10.00	3.50	10.00	15.00
Benzene		0.120	<0.0067	<0.0062	<0.0056	<0.0062	<0.0063
Ethylbenzene		140	<0.0067	<0.0062	<0.0056	<0.0062	<0.0063
Toluene		500	<0.0067	<0.0062	0.0059	<0.0062	<0.0063
Xylene (total)		700	<0.0067	0.0084	0.013	<0.0062	<0.0063
Acenaphthylene			<0.39	<0.41	<0.37	<0.41	<0.42
Benzo(a)pyrene			<0.39	<0.41	<0.37	<0.41	<0.42
Benzo(b,k)fluoranthene			<0.39	<0.41	<0.37	<0.41	<0.42
Benzo(ghi)perylene			<0.39	<0.41	<0.37	<0.41	<0.42
Chrysene + Benzo(a)anthracene			<0.39	<0.41	<0.37	<0.41	<0.42
Fluoranthene			<0.39	<0.41	<0.37	<0.41	<0.42
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.39	<0.41	<0.37	<0.41	<0.42
Naphthalene			<0.39	<0.41	<0.37	<0.41	<0.42
Phenanthrene + Anthracene			<0.39	<0.41	<0.37	<0.41	<0.42
Pyrene			<0.39	<0.41	<0.37	<0.41	<0.42
2-Methylnaphthalene			<0.39	<0.41	<0.37	<0.41	<0.42
GRO			<0.29	<0.31 J	<0.28	<0.31	<0.32 J
DRO			<12	<12	<11	<12	<13 J

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB32	H833SB33	H833SB33	H833SB34	H833SB34
	SAMPLE ID		H833-SB3204	H833-SB3301	H833-SB3302	H833-SB3401	H833-SB3402
	DATE		02/29/96	03/04/96	03/04/96	03/04/96	03/04/96
	DEPTH (ft)	GA-SSC	20.00	3.50	10.00	3.10	8.00
Benzene		0.120	<0.0062	<0.0054	<0.0062	<0.0054	<0.0060
Ethylbenzene		140	<0.0062	<0.0054	<0.0062	<0.0054	<0.0060
Toluene		500	<0.0062	<0.0054	<0.0062	<0.0054	<0.0060
Xylene (total)		700	<0.0062	<0.0054	<0.0062	<0.0054	<0.0060
Acenaphthylene			<0.41	<0.36	<0.41	<0.36	<0.39
Benzo(a)pyrene			<0.41	<0.36	<0.41	<0.36	<0.39
Benzo(b,k)fluoranthene			<0.41	<0.36	<0.41	<0.36	<0.39
Benzo(ghi)perylene			<0.41	<0.36	<0.41	<0.36	<0.39
Chrysene + Benzo(a)anthracene			<0.41	<0.36	<0.41	<0.36	<0.39
Fluoranthene			<0.41	<0.36	<0.41	<0.36	<0.39
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.41	<0.36	<0.41	<0.36	<0.39
Naphthalene			<0.41	<0.36	<0.41	<0.36	<0.39
Phenanthrene + Anthracene			<0.41	<0.36	<0.41	<0.36	<0.39
Pyrene			<0.41	<0.36	<0.41	<0.36	<0.39
2-Methylnaphthalene			<0.41	<0.36	<0.41	<0.36	<0.39
GRO			<0.31	<0.27	<0.31	<0.27	<0.30
DRO			20	<11	<12	<11	<12

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB35	H833SB35	H833SB36	H833SB36	H833SB37
	SAMPLE ID		H833-SB3501	H833-SB3502	H833-SB3601	H833-SB3602	H833-SB3701
	DATE		03/04/96	03/04/96	03/04/96	03/04/96	03/05/96
	DEPTH (ft)	GA-SSC	3.50	8.00	3.30	8.00	3.30
Benzene		0.120	<0.0055	<0.0063	<0.0056	<0.0060	<0.0054
Ethylbenzene		140	<0.0055	<0.0063	<0.0056	<0.0060	<0.0054
Toluene		500	<0.0055	<0.0063	<0.0056	<0.0060	<0.0054
Xylene (total)		700	<0.0055	<0.0063	<0.0056	<0.0060	<0.0054
Acenaphthylene			<0.36	<0.42	<0.37	<0.39	<1.8 R
Benzo(a)pyrene			<0.36	<0.42	<0.37	<0.39	9.1 J
Benzo(b,k)fluoranthene			<0.36	<0.42	<0.37	<0.39	15 J
Benzo(ghi)perylene			<0.36	<0.42	<0.37	<0.39	7.3 J
Chrysene + Benzo(a)anthracene			<0.36	<0.42	<0.37	<0.39	19 J
Fluoranthene			<0.36	<0.42	<0.37	<0.39	10 J
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.36	<0.42	<0.37	<0.39	9.2 J
Naphthalene			<0.36	<0.42	<0.37	<0.39	<1.8 R
Phenanthrene + Anthracene			<0.36	<0.42	<0.37	<0.39	4.1 J
Pyrene			<0.36	<0.42	<0.37	<0.39	11 J
2-Methylnaphthalene			<0.36	<0.42	<0.37	<0.39	<1.8 R
GRO			<0.27	<0.32	<0.28 J	<0.30	<0.27 J
DRO			<11	<13	<11	<12	36

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB37	H833SB37	H833SB37	H833SB38	H833SB38
	SAMPLE ID		H833-SB3702RE	H833-SB3703RE	H833-SB3704	H833-SB3801	H833-SB3802
	DATE		03/05/96	03/05/96	03/05/96	03/04/96	03/04/96
	DEPTH (ft)	GA-SSC	5.30	15.00	20.00	3.30	5.30
Benzene		0.120	<0.0054	<0.0060	<0.0060	<0.0056	<0.0057
Ethylbenzene		140	<0.0054	<0.0060	<0.0060	<0.0056	<0.0057
Toluene		500	<0.0054	<0.0060	<0.0060	<0.0056	<0.0057
Xylene (total)		700	<0.0054	<0.0060	<0.0060	<0.0056	<0.0057
Acenaphthylene			2.2 J	<0.40	<0.40	<0.37	<0.38
Benzo(a)pyrene			10 J	0.76	0.43	<0.37	<0.38
Benzo(b,k)fluoranthene			22 J	1.3	0.83	<0.37	<0.38
Benzo(ghi)perylene			11 J	0.63	<0.40	<0.37	<0.38
Chrysene + Benzo(a)anthracene			22 J	1.4	1.1	<0.37	<0.38
Fluoranthene			9.2 J	0.77	1.0	<0.37	<0.38
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			14 J	0.63	<0.40	<0.37	<0.38
Naphthalene			<1.8 R	<0.40	<0.40	<0.37	<0.38
Phenanthrene + Anthracene			6.5 J	0.51	1.1	<0.37	<0.38
Pyrene			11 J	0.81	0.90	<0.37	<0.38
2-Methylnaphthalene			<1.8 R	<0.40	<0.40	<0.37	<0.38
GRO			<0.27	<0.30	<0.30	<0.28	<0.28
DRO			51	<12	<12	<11	<11

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB39	H833SB39	H833SB40	H833SB40	H833SB40
	SAMPLE ID		H833-SB3901	H833-SB3902	H833-SB4001	H833-SB4002	H833-SB4003
	DATE		03/04/96	03/04/96	03/05/96	03/05/96	03/05/96
	DEPTH (ft)	GA-SSC	3.50	8.00	3.50	7.00	15.00
Benzene		0.120	<0.0058	<0.0063	<0.0061	<0.0062	<0.0064
Ethylbenzene		140	<0.0058	<0.0063	<0.0061	<0.0062	<0.0064
Toluene		500	<0.0058	<0.0063	<0.0061	<0.0062	<0.0064
Xylene (total)		700	<0.0058	<0.0063	<0.0061	<0.0062	<0.0064
Acenaphthylene			<0.38	<0.42	<0.80	<0.41	<0.42
Benzo(a)pyrene			<0.38	<0.42	<0.80	<0.41	<0.42
Benzo(b,k)fluoranthene			<0.38	<0.42	<0.80	<0.41	<0.42
Benzo(ghi)perylene			<0.38	<0.42	<0.80	<0.41	<0.42
Chrysene + Benzo(a)anthracene			<0.38	<0.42	<0.80	<0.41	<0.42
Fluoranthene			<0.38	<0.42	<0.80	<0.41	<0.42
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.38	<0.42	<0.80	<0.41	<0.42
Naphthalene			<0.38	<0.42	<0.80	<0.41	<0.42
Phenanthrene + Anthracene			<0.38	<0.42	<0.80	<0.41	<0.42
Pyrene			<0.38	<0.42	<0.80	<0.41	<0.42
2-Methylnaphthalene			<0.38	<0.42	<0.80	<0.41	<0.42
GRO			<0.29 J	<0.32	<0.30	<0.31	<0.32 J
DRO			<12	<13	65	<12	<13

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB40	H833SB41	H833SB41	H833SB42	H833SB42
	SAMPLE ID		H833-SB4004	H833-SB4101	H833-SB4102	H833-SB4201	H833-SB4202
	DATE		03/05/96	03/04/96	03/04/96	03/04/96	03/04/96
	DEPTH (ft)	GA-SSC	20.00	3.50	7.00	3.30	8.00
Benzene		0.120	<0.0064	<0.0056	<0.0060	<0.0054	<0.0062
Ethylbenzene		140	<0.0064	<0.0056	<0.0060	<0.0054	<0.0062
Toluene		500	<0.0064	<0.0056	<0.0060	<0.0054	<0.0062
Xylene (total)		700	0.014	<0.0056	<0.0060	<0.0054	<0.0062
Acenaphthylene			<0.42	<0.37	<0.39	<0.36	<0.41
Benzo(a)pyrene			<0.42	<0.37	<0.39	<0.36	<0.41
Benzo(b,k)fluoranthene			<0.42	<0.37	<0.39	<0.36	<0.41
Benzo(ghi)perylene			<0.42	<0.37	<0.39	<0.36	<0.41
Chrysene + Benzo(a)anthracene			<0.42	<0.37	<0.39	<0.36	<0.41
Fluoranthene			<0.42	<0.37	<0.39	<0.36	<0.41
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.42	<0.37	<0.39	<0.36	<0.41
Naphthalene			<0.42	<0.37	<0.39	<0.36	<0.41
Phenanthrene + Anthracene			<0.42	<0.37	<0.39	<0.36	<0.41
Pyrene			<0.42	<0.37	<0.39	<0.36	<0.41
2-Methylnaphthalene			<0.42	<0.37	<0.39	<0.36	<0.41
GRO			<0.32 J	<0.28	<0.30 J	<0.27	<0.31
DRO			<13	13	<12	<11	<12

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB43	H833SB43	H833SB44	H833SB44	H833SB44
	SAMPLE ID		H833-SB4301	H833-SB4302	H833-SB4401	H833-SB4402	H833-SB4403
	DATE		03/04/96	03/04/96	03/05/96	03/05/96	03/05/96
	DEPTH (ft)	GA-SSC	3.50	7.00	3.50	7.00	15.00
Benzene		0.120	<0.0055	<0.0057	<0.0054	<0.0058	<0.0063
Ethylbenzene		140	<0.0055	<0.0057	<0.0054	<0.0058	<0.0063
Toluene		500	0.0065	<0.0057	<0.0054	<0.0058	<0.0063
Xylene (total)		700	<0.0055	<0.0057	<0.0054	<0.0058	<0.0063
Acenaphthylene			<0.36	<0.38	<0.36	<0.38	<0.42
Benzo(a)pyrene			<0.36	<0.38	<0.36	<0.38	<0.42
Benzo(b,k)fluoranthene			<0.36	<0.38	<0.36	<0.38	<0.42
Benzo(ghi)perylene			<0.36	1.1	<0.36	<0.38	<0.42
Chrysene + Benzo(a)anthracene			<0.36	<0.38	<0.36	<0.38	<0.42
Fluoranthene			<0.36	<0.38	<0.36	<0.38	<0.42
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.36	<0.38	<0.36	<0.38	<0.42
Naphthalene			<0.36	<0.38	<0.36	<0.38	<0.42
Phenanthrene + Anthracene			<0.36	<0.38	<0.36	<0.38	<0.42
Pyrene			<0.36	<0.38	<0.36	<0.38	<0.42
2-Methylnaphthalene			<0.36	<0.38	<0.36	<0.38	<0.42
GRO			<0.27	<0.29 J	<0.27	<0.29	<0.32
DRO			15	<11	<11	<12	<13

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB44	H833SB45	H833SB45	H833SB46	H833SB46
	SAMPLE ID		H833-SB4404	H833-SB4501	H833-SB4502	H833-SB4601	H833-SB4602
	DATE		03/05/96	03/04/96	03/04/96	03/04/96	03/04/96
	DEPTH (ft)	GA-SSC	20.00	2.50	7.00	3.50	10.00
Benzene		0.120	<0.0061	<0.0055	<0.0060	<0.0054	<0.0056
Ethylbenzene		140	<0.0061	<0.0055	<0.0060	<0.0054	<0.0056
Toluene		500	<0.0061	<0.0055	<0.0060	<0.0054	<0.0056
Xylene (total)		700	<0.0061	<0.0055	0.0077	<0.0054	<0.0056
Acenaphthylene			<0.40	<0.36	<0.40	<0.36	<0.37
Benzo(a)pyrene			<0.40	<0.36	<0.40	<0.36	<0.37
Benzo(b,k)fluoranthene			<0.40	<0.36	<0.40	<0.36	<0.37
Benzo(ghi)perylene			<0.40	<0.36	0.47	<0.36	0.64
Chrysene + Benzo(a)anthracene			<0.40	<0.36	<0.40	<0.36	<0.37
Fluoranthene			<0.40	<0.36	<0.40	<0.36	<0.37
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.40	<0.36	<0.40	<0.36	<0.37
Naphthalene			<0.40	<0.36	<0.40	<0.36	<0.37
Phenanthrene + Anthracene			<0.40	<0.36	<0.40	<0.36	<0.37
Pyrene			<0.40	<0.36	<0.40	<0.36	<0.37
2-Methylnaphthalene			<0.40	<0.36	<0.40	<0.36	<0.37
GRO			<0.30	<0.27 J	<0.30	<0.27	<0.28 J
DRO			<12	<11	<12	30	<11

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated.

GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB47	H833SB47	H833SB48	H833SB48	H833SB48
	SAMPLE ID		H833-SB4701	H833-SB4702	H833-SB4801	H833-SB4802	H833-SB4803
	DATE		03/04/96	03/04/96	03/05/96	03/05/96	03/05/96
	DEPTH (ft)	GA-SSC	3.50	7.00	3.50	7.00	15.00
Benzene		0.120	<0.0056	<0.0057	<0.0061	<0.0060	<0.0063
Ethylbenzene		140	<0.0056	<0.0057	0.0082	<0.0060	<0.0063
Toluene		500	<0.0056	<0.0057	<0.0061	<0.0060	<0.0063
Xylene (total)		700	<0.0056	<0.0057	0.15	0.094	<0.0063
Acenaphthylene			<0.37	<0.38	<0.40	<0.40	<0.42
Benzo(a)pyrene			<0.37	<0.38	<0.40	<0.40	<0.42
Benzo(b,k)fluoranthene			<0.37	<0.38	<0.40	<0.40	<0.42
Benzo(ghi)perylene			<0.37	<0.38	<0.40	<0.40	<0.42
Chrysene + Benzo(a)anthracene			<0.37	<0.38	<0.40	<0.40	<0.42
Fluoranthene			<0.37	<0.38	<0.40	<0.40	<0.42
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.37	<0.38	<0.40	<0.40	<0.42
Naphthalene			<0.37	<0.38	<0.40	<0.40	<0.42
Phenanthrene + Anthracene			<0.37	<0.38	<0.40	<0.40	<0.42
Pyrene			<0.37	<0.38	<0.40	<0.40	<0.42
2-Methylnaphthalene			<0.37	<0.38	<0.40	<0.40	<0.42
GRO			<0.28	<0.29	1.6	0.54	<0.32
DRO			<11	11	<12	<12	<13

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated.

GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		H833SB48	H833SB49	H833SB49	H833SB50	H833SB50
	SAMPLE ID		H833-SB4804	H833-SB4901	H833-SB4902	H833-SB5001	H833-SB5002
	DATE		03/05/96	03/05/96	03/05/96	03/04/96	03/04/96
	DEPTH (ft)	GA-SSC	20.00	3.30	8.00	3.10	10.00
Benzene		0.120	<0.0061	<0.0054	<0.0057	<0.0056	<0.0060
Ethylbenzene		140	<0.0061	<0.0054	<0.0057	<0.0056	<0.0060
Toluene		500	<0.0061	<0.0054	<0.0057	<0.0056	<0.0060
Xylene (total)		700	<0.0061	<0.0054	<0.0057	<0.0056	<0.0060
Acenaphthylene			<0.40	<0.36	<0.38	<0.37	<0.39
Benzo(a)pyrene			<0.40	<0.36	<0.38	<0.37	<0.39
Benzo(b,k)fluoranthene			<0.40	<0.36	<0.38	<0.37	<0.39
Benzo(ghi)perylene			<0.40	<0.36	<0.38	<0.37	<0.39
Chrysene + Benzo(a)anthracene			<0.40	<0.36	<0.38	<0.37	<0.39
Fluoranthene			<0.40	<0.36	<0.38	<0.37	<0.39
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.40	<0.36	<0.38	<0.37	<0.39
Naphthalene			<0.40	<0.36	<0.38	<0.37	<0.39
Phenanthrene + Anthracene			<0.40	<0.36	<0.38	<0.37	<0.39
Pyrene			<0.40	<0.36	<0.38	<0.37	<0.39
2-Methylnaphthalene			<0.40	<0.36	<0.38	<0.37	<0.39
GRO			<0.30	<0.27	<0.29	<0.28	<0.30
DRO			<12	<11	<11	<11	<12

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-01	MW-01	MW-02	MW-02	MW-03
	SAMPLE ID		H833-WB0101	H833-WB0102	H833-WB0201	H833-WB0202	H833-WB0301
	DATE		04/23/96	04/23/96	04/23/96	04/23/96	04/24/96
	DEPTH (ft)	GA-SSC	7.20	15.00	5.00	15.00	5.00
Benzene		0.120	<0.0054	<0.0062	0.0056	[23]	0.0073 J
Ethylbenzene		140	<0.0054	<0.0062	<0.0055	2.2	<0.0053
Toluene		500	<0.0054	<0.0062	<0.0055	1.7	<0.0053
Xylene (total)		700	<0.0054	<0.0062	<0.0055	2.5	0.0066
Acenaphthylene			<0.36	<0.41	<0.36	<0.41	<0.35
Benzo(a)pyrene			<0.36	<0.41	<0.36	<0.41	<0.35
Benzo(b,k)fluoranthene			<0.36	<0.41	<0.36	<0.41	<0.35
Benzo(ghi)perylene			<0.36	<0.41	<0.36	<0.41	<0.35
Chrysene + Benzo(a)anthracene			<0.36	<0.41	<0.36	<0.41	<0.35
Fluoranthene			<0.36	<0.41	<0.36	<0.41	<0.35
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.36	<0.41	<0.36	<0.41	<0.35
Pyrene			<0.36	<0.41	<0.36	<0.41	<0.35
GRO			<0.20	<0.22	<0.20	680	<0.19 J
DRO			<11	<12	<11	13	<11

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-03	MW-04	MW-04	MW-05	MW-05
	SAMPLE ID		H833-WB0302	H833-WB0401	H833-WB0402	H833-WB0501	H833-WB0502
	DATE		04/24/96	04/24/96	04/24/96	04/25/96	04/25/96
	DEPTH (ft)	GA-SSC	10.00	7.30	10.00	10.00	15.00
Benzene		0.120	<0.0061	<0.0056	<0.0060	<5.6	0.0077 J
Ethylbenzene		140	<0.0061	<0.0056	<0.0060	13 J	0.027 J
Toluene		500	<0.0061	<0.0056	<0.0060	12 J	<0.0062
Xylene (total)		700	<0.0061	<0.0056	<0.0060	28 J	0.0090 J
Acenaphthylene			<0.40	<0.37	<0.39	<0.36	<0.41
Benzo(a)pyrene			<0.40	<0.37	<0.39	<0.36	<0.41
Benzo(b,k)fluoranthene			<0.40	<0.37	<0.39	<0.36	<0.41
Benzo(ghi)perylene			<0.40	<0.37	<0.39	<0.36	<0.41
Chrysene + Benzo(a)anthracene			<0.40	<0.37	<0.39	<0.36	<0.41
Fluoranthene			<0.40	<0.37	<0.39	<0.36	<0.41
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.40	<0.37	<0.39	<0.36	<0.41
Pyrene			<0.40	<0.37	<0.39	<0.36	<0.41
GRO			<0.22	<0.20 J	<0.21	<12000 J	35 J
DRO			<12	<11	<12	11	<12

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-06	MW-06	MW-07	MW-07	MW-08
	SAMPLE ID		H833-WB0601	H833-WB0602	H833-WB0701	H833-WB0702	H833-WB0801
	DATE		04/25/96	04/25/96	04/29/96	04/29/96	04/24/96
	DEPTH (ft)	GA-SSC	3.25	10.00	3.30	10.00	7.25
Benzene		0.120	<0.0054	<12	<0.0054	<0.0058	<0.0054 J
Ethylbenzene		140	0.033	23 J	<0.0054	<0.0058	<0.0054
Toluene		500	<0.0054	<12	<0.0054	<0.0058	<0.0054
Xylene (total)		700	0.13	44 J	<0.0054	<0.0058	<0.0054
Acenaphthylene			<0.36	<0.40	<0.36	<0.38	<0.36
Benzo(a)pyrene			<0.36	<0.40	<0.36	<0.38	0.46
Benzo(b,k)fluoranthene			<0.36	<0.40	<0.36	<0.38	0.94
Benzo(ghi)perylene			<0.36	<0.40	<0.36	<0.38	<0.36
Chrysene + Benzo(a)anthracene			<0.36	<0.40	<0.36	<0.38	0.43
Fluoranthene			<0.36	<0.40	<0.36	<0.38	0.40
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.36	<0.40	<0.36	<0.38	<0.36
Pyrene			<0.36	<0.40	<0.36	<0.38	0.54
GRO			<5.8 J	<26000 J	<0.20	<0.21	<0.20 J
DRO			<11	<12	15	<12	13

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-08	MW-09	MW-09	MW-10	MW-10
	SAMPLE ID		H833-WB0802	H833-WB0901	H833-WB0902	H833-WB1001	H833-WB1002
	DATE		04/24/96	04/24/96	04/24/96	04/24/96	04/24/96
	DEPTH (ft)	GA-SSC	10.00	6.40	15.00	4.40	10.00
Benzene		0.120	[28] J	<0.0054	<0.0060	<0.0054	<0.0060
Ethylbenzene		140	<5.6 J	<0.0054	<0.0060	<0.0054	<0.0060
Toluene		500	<5.0	<0.0054	<0.0060	<0.0054	<0.0060
Xylene (total)		700	10 J	<0.0054	<0.0060	<0.0054	<0.0060
Acenaphthylene			<0.37	<0.35	<0.39	<0.36	<0.40
Benzo(a)pyrene			<0.37	<0.35	<0.39	<0.36	<0.40
Benzo(b,k)fluoranthene			<0.37	<0.35	<0.39	<0.36	<0.40
Benzo(ghi)perylene			<0.37	<0.35	<0.39	<0.36	<0.40
Chrysene + Benzo(a)anthracene			<0.37	<0.35	<0.39	<0.36	<0.40
Fluoranthene			<0.37	<0.35	<0.39	<0.36	<0.40
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.37	<0.35	<0.39	<0.36	<0.40
Pyrene			<0.37	<0.35	<0.39	<0.36	<0.40
GRO			<1.20 J	<0.19 J	<0.21	<0.20	<0.22
DRO			<11	<11	<12	<11	<12

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed
[] = Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated.

GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-11	MW-11	MW-12	MW-12	MW-13
	SAMPLE ID		H833-WB1101	H833-WB1102	H833-WB1201	H833-WB1202	H833-WB1301
	DATE		04/23/96	04/23/96	04/22/96	04/22/96	04/22/96
	DEPTH (ft)	GA-SSC	5.30	10.00	7.30	10.00	5.50
Benzene		0.120	<0.0054	[0.92]	0.0085	[4.3]	<0.0056
Ethylbenzene		140	<0.0054	<0.47	0.017	1.4	<0.0056
Toluene		500	<0.0054	0.55	<0.0057	<0.46	<0.0056
Xylene (total)		700	<0.0054	0.49	0.012	0.92	<0.0056
Acenaphthylene			<0.35	<0.39	<0.35	<0.38	0.61
Benzo(a)pyrene			<0.35	<0.39	<0.35	<0.38	2.4
Benzo(b,k)fluoranthene			<0.35	<0.39	<0.35	<0.38	4.8
Benzo(ghi)perylene			<0.35	<0.39	<0.35	<0.38	1.9
Chrysene + Benzo(a)anthracene			<0.35	<0.39	<0.35	<0.38	4.0
Fluoranthene			<0.35	<0.39	<0.35	<0.38	1.4
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.35	<0.39	<0.35	<0.38	2.0
Pyrene			<0.35	<0.39	<0.35	<0.38	1.5
GRO			<0.19	51	<6.1 J	<1000 J	1.5 J
DRO			<11	19	28	13	18

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-13	MW-14	MW-14	MW-15	MW-15
	SAMPLE ID		H833-WB1302	H833-WB1401	H833-WB1402	H833-WB1501	H833-WB1502
	DATE		04/22/96	04/22/96	04/22/96	04/25/96	04/25/96
	DEPTH (ft)	GA-SSC	10.00	10.00	17.00	7.30	10.00
Benzene		0.120	[3.2]	<0.0060	<0.0063	<0.0060	<0.0062
Ethylbenzene		140	1.2	<0.0060	<0.0063	<0.0060	<0.0062
Toluene		500	<0.45	<0.0060	<0.0063	<0.0060	<0.0062
Xylene (total)		700	1.3	<0.0060	<0.0063	<0.0060	<0.0062
Acenaphthylene			<0.38	<0.40	<0.42	<0.40	<0.41
Benzo(a)pyrene			<0.38	<0.40	<0.42	<0.40	<0.41
Benzo(b,k)fluoranthene			<0.38	<0.40	<0.42	<0.40	<0.41
Benzo(ghi)perylene			<0.38	<0.40	<0.42	<0.40	<0.41
Chrysene + Benzo(a)anthracene			<0.38	<0.40	<0.42	<0.40	<0.41
Fluoranthene			<0.38	<0.40	<0.42	<0.40	<0.41
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.38	<0.40	<0.42	<0.40	<0.41
Pyrene			<0.38	<0.40	<0.42	<0.40	<0.41
GRO			160 J	<0.22	<0.23 J	<0.22	<0.22
DRO			36	<12	<13 J	<12	<12

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[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-16	MW-16	MW-17	MW-17	MW-18
	SAMPLE ID		H833-WB1601	H833-WB1602	H833-WB1701	H833-WB1702	H833-WB1801
	DATE		04/25/96	04/25/96	04/22/96	04/22/96	04/23/96
	DEPTH (ft)	GA-SSC	5.30	10.00	7.40	10.00	5.30
Benzene		0.120	<0.0062	<0.0060	<0.0054	[410] J	<0.0053
Ethylbenzene		140	<0.0062	<0.0060	<0.0054	50 J	<0.0053
Toluene		500	<0.0062	<0.0060	<0.0054	30 J	<0.0053
Xylene (total)		700	<0.0062	<0.0060	<0.0054	120 J	<0.0053
Acenaphthylene			<0.41	<0.39	<0.36	<0.38	<0.35
Benzo(a)pyrene			<0.41	<0.39	<0.36	<0.38	<0.35
Benzo(b,k)fluoranthene			<0.41	<0.39	<0.36	<0.38	<0.35
Benzo(ghi)perylene			<0.41	<0.39	<0.36	<0.38	<0.35
Chrysene + Benzo(a)anthracene			<0.41	<0.39	<0.36	<0.38	<0.35
Fluoranthene			<0.41	<0.39	<0.36	<0.38	<0.35
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.41	<0.39	<0.36	<0.38	<0.35
Pyrene			<0.41	<0.39	<0.36	<0.38	<0.35
GRO			<0.22	<0.21	<0.20 J	<120000 J	<0.19
DRO			<12	<12 J	17	64	<11

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed
[] = Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-18	MW-19	MW-19	MW-20	MW-20
	SAMPLE ID		H833-WB1802	H833-WB1901	H833-WB1902	H833-WB2001	H833-WB2002
	DATE		04/23/96	04/22/96	04/22/96	04/23/96	04/23/96
	DEPTH (ft)	GA-SSC	10.00	10.00	15.00	10.00	15.00
Benzene		0.120	<0.0056	[11] J	[0.30]	<0.0060	<0.0064
Ethylbenzene		140	<0.0056	2.0 J	<0.031	<0.0060	<0.0064
Toluene		500	<0.0056	<0.46	<0.031	<0.0060	<0.0064
Xylene (total)		700	<0.0056	1.3 J	0.044	<0.0060	<0.0064
Acenaphthylene			<0.37	<0.38	<0.41	<0.40	<0.42
Benzo(a)pyrene			<0.37	<0.38	<0.41	<0.40	<0.42
Benzo(b,k)fluoranthene			<0.37	<0.38	<0.41	<0.40	<0.42
Benzo(ghi)perylene			<0.37	<0.38	<0.41	<0.40	<0.42
Chrysene + Benzo(a)anthracene			<0.37	<0.38	<0.41	<0.40	<0.42
Fluoranthene			<0.37	<0.38	<0.41	<0.40	<0.42
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.37	<0.38	<0.41	<0.40	<0.42
Pyrene			<0.37	<0.38	<0.41	<0.40	<0.42
GRO			<0.20	<12000 J	7.7 J	<0.22	<0.23 J
DRO			<11	22	<12	<12	<13

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-21	MW-21	MW-22	MW-22	MW-23
	SAMPLE ID		H833-WB2101	H833-WB2102	H833-WB2201	H833-WB2202	H833-WB2301
	DATE		04/23/96	04/23/96	04/23/96	04/23/96	04/23/96
	DEPTH (ft)	GA-SSC	7.25	10.00	5.25	10.00	7.25
Benzene		0.120	<0.0056	<0.0061	<0.0056	<0.0058	<0.0058
Ethylbenzene		140	<0.0056	<0.0061	<0.0056	<0.0058	<0.0058
Toluene		500	<0.0056	<0.0061	<0.0056	<0.0058	<0.0058
Xylene (total)		700	<0.0056	<0.0061	<0.0056	<0.0058	<0.0058
Acenaphthylene			<0.37	<0.40	<0.37	<0.38	<0.38
Benzo(a)pyrene			<0.37	<0.40	<0.37	<0.38	<0.38
Benzo(b,k)fluoranthene			<0.37	<0.40	<0.37	<0.38	<0.38
Benzo(ghi)perylene			<0.37	<0.40	<0.37	<0.38	<0.38
Chrysene + Benzo(a)anthracene			<0.37	<0.40	<0.37	<0.38	<0.38
Fluoranthene			<0.37	<0.40	<0.37	<0.38	<0.38
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.37	<0.40	<0.37	<0.38	<0.38
Pyrene			<0.37	<0.40	<0.37	<0.38	<0.38
GRO			<0.20 J	<0.22 J	<0.20 J	<0.21 J	<0.21
DRO			<11	<12	<11	<12	<12

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-23	MW-24	MW-24	MW-25	MW-25
	SAMPLE ID		H833-WB2302	H833-WB2401	H833-WB2402	H833-WB2501	H833-WB2502
	DATE		04/23/96	04/23/96	04/23/96	04/24/96	04/24/96
	DEPTH (ft)	GA-SSC	10.00	5.25	10.00	5.40	10.00
Benzene		0.120	<0.0067	<0.0055	<0.0064	<0.0053	<0.0062
Ethylbenzene		140	<0.0067	<0.0055	<0.0064	<0.0053	<0.0062
Toluene		500	<0.0067	<0.0055	<0.0064	<0.0053	0.0085
Xylene (total)		700	<0.0067	<0.0055	<0.0064	<0.0053	0.0090
Acenaphthylene			<0.44	<0.36	<0.42	<0.35	<0.41
Benzo(a)pyrene			<0.44	<0.36	<0.42	<0.35	<0.41
Benzo(b,k)fluoranthene			<0.44	<0.36	<0.42	<0.35	<0.41
Benzo(ghi)perylene			<0.44	<0.36	<0.42	<0.35	<0.41
Chrysene + Benzo(a)anthracene			<0.44	<0.36	<0.42	<0.35	<0.41
Fluoranthene			<0.44	<0.36	<0.42	<0.35	<0.41
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.44	<0.36	<0.42	<0.35	<0.41
Pyrene			<0.44	<0.36	<0.42	<0.35	<0.41
GRO			<0.24	<0.20	<0.23	<0.19	<0.22
DRO			<13	<11	<13	<10	<12

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-26	MW-26	MW-27	MW-27	MW-28
	SAMPLE ID		H833-WB2601	H833-WB2602	H833-WB2701	H833-WB2702	H833-WB2801
	DATE		04/24/96	04/24/96	04/24/96	04/24/96	04/25/96
	DEPTH (ft)	GA-SSC	7.30	10.00	5.30	10.00	6.00
Benzene		0.120	<0.0054	<0.0062	<0.0057	<0.0061	<0.0053
Ethylbenzene		140	<0.0054	<0.0062	<0.0057	<0.0061	<0.0053
Toluene		500	<0.0054	<0.0062	<0.0057	<0.0061	<0.0053
Xylene (total)		700	<0.0054	<0.0062	<0.0057	<0.0061	<0.0053
Acenaphthylene			<0.35	<0.41	<0.38	<0.40	<0.35
Benzo(a)pyrene			0.45	<0.41	<0.38	<0.40	<0.35
Benzo(b,k)fluoranthene			0.80	<0.41	<0.38	<0.40	<0.35
Benzo(ghi)perylene			<0.35	<0.41	<0.38	<0.40	<0.35
Chrysene + Benzo(a)anthracene			0.39	<0.41	<0.38	<0.40	<0.35
Fluoranthene			0.44	<0.41	<0.38	<0.40	<0.35
Indeno(1,2,3-cd)pyrene + Dibenzo(a,h)anthr			<0.35	<0.41	<0.38	<0.40	<0.35
Pyrene			0.48	<0.41	<0.38	<0.40	<0.35
GRO			<0.19	<0.22	<0.21	<0.22	<0.19
DRO			<11	<12	<11	<12	<10

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-28	MW-29	MW-29	MW-30	MW-30
	SAMPLE ID		H833-WB2802	H833-WB2901	H833-WB2902	H833-WB3001	H833-WB3002
	DATE		04/25/96	04/29/96	04/29/96	04/29/96	04/29/96
	DEPTH (ft)	GA-SSC	15.00	3.30	10.00	7.30	10.00
Benzene		0.120	<0.0068	<0.0056	<0.0062	<0.0059	<0.0063
Ethylbenzene		140	<0.0068	<0.0056	<0.0062	0.0061	<0.0063
Toluene		500	<0.0068	<0.0056	<0.0062	0.0078	<0.0063
Xylene (total)		700	<0.0068	0.0075 J	<0.0062	0.023	<0.0063
Acenaphthylene			<0.45	<3.7	<0.41	<0.39	<0.42
Benzo(a)pyrene			<0.45	4.3 J	<0.41	1.2	<0.42
Benzo(b,k)fluoranthene			<0.45	<3.7	<0.41	2.0	<0.42
Benzo(ghi)perylene			<0.45	<3.7	<0.41	<0.39	<0.42
Chrysene + Benzo(a)anthracene			<0.45	5.2 J	<0.41	0.64	<0.42
Fluoranthene			<0.45	5.9 J	<0.41	0.43	<0.42
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.45	<3.7	<0.41	<0.39	<0.42
Pyrene			<0.45	5.7 J	<0.41	0.83	<0.42
GRO			<0.25	<0.20 J	<0.22	<6.3	<0.22
DRO			<14	33	34	27	24

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 3

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN SOIL

Date: 07/18/96

CONSTITUENT (Units in mg/kg)	SITE		MW-31	MW-31	MW-32	MW-32
	SAMPLE ID		H833-WB3101	H833-WB3102	H833-WB3201	H833-WB3202
	DATE		04/29/96	04/29/96	04/29/96	04/29/96
	DEPTH (ft)	GA-SSC	5.50	10.00	7.40	10.00
Benzene		0.120	<0.0060	<0.0062	<0.0060	<0.0062
Ethylbenzene		140	<0.0060	<0.0062	<0.0060	<0.0062
Toluene		500	<0.0060	<0.0062	<0.0060	<0.0062
Xylene (total)		700	<0.0060	<0.0062	0.026	<0.0062
Acenaphthylene			<0.40	<0.41	<0.40	<0.41
Benzo(a)pyrene			<0.40	<0.41	<0.40	<0.41
Benzo(b,k)fluoranthene			<0.40	<0.41	<0.40	<0.41
Benzo(ghi)perylene			<0.40	<0.41	<0.40	<0.41
Chrysene + Benzo(a)anthracene			<0.40	<0.41	<0.40	<0.41
Fluoranthene			<0.40	<0.41	<0.40	<0.41
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthr			<0.40	<0.41	<0.40	<0.41
Pyrene			<0.40	<0.41	<0.40	<0.41
GRO			<0.22	<0.22	<6.6 J	<0.22
DRO			20	22	19	44

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

METHODS: EPA 8020,8100,8100M,8015M. J = Result is estimated. GA-SSC = Georgia Soil Screening Criteria listed in TABLE 1.

TABLE 4

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER

Date: 07/19/96

CONSTITUENT (Units in ug/l)	SITE		MW-01	MW-02	MW-03	MW-04	MW-05
	SAMPLE ID		H833-GW0101	H833-GW0201	H833-GW0301	H833-GW0401	H833-GW0501
	DATE	GA-WQS	05/21/96	05/21/96	05/23/96	05/23/96	05/23/96
Benzene		71.28	[100]	[700]	<1	<1	[4100]
Ethylbenzene		28718	230	1100	<1	<1	1700
Toluene		200000	<25	12000	<1	4.6	8900
Xylene (total)			860	4500	<1	<1	6400
Acenaphthene			<10	20	<10	<10	<10
Acenaphthylene			<10	<10	<10	<10	<10
Fluorene		14000	<10	<10	<10	<10	<10
Naphthalene			<10	<10	<10	<10	<10
1-Methylnaphthalene			<10	<10	<10	<10	<10
2-Methylnaphthalene			<10	<10	<10	<10	<10

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed
[] = Greater than Action Level

METHODS: EPA 8020, 8100. J = The result is estimated. GA-WQS = Georgia Instream Water Quality Standards

TABLE 4

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER

Date: 07/19/96

CONSTITUENT (Units in ug/l)	SITE		MW-06	MW-07	MW-07	MW-08	MW-09
	SAMPLE ID		H833-GW0601	H833-TB0301	H833-GW0701	H833-GW0801	H833-GW0901
	DATE	GA-WQS	05/23/96	05/22/96	05/22/96	05/21/96	05/23/96
Benzene		71.28	<25	<1	<1	[200]	<1
Ethylbenzene		28718	320	<1	<1	310	<1
Toluene		200000	1400	<1	<1	920	<1
Xylene (total)			1400	<1	<1	1200	<1
Acenaphthene			<10	---	<10	<10	<10
Acenaphthylene			<10	---	<10	<10	10
Fluorene		14000	<10	---	<10	<10	<10
Naphthalene			<10	---	<10	<10	21
1-Methylnaphthalene			<10	---	<10	<10	<10
2-Methylnaphthalene			<10	---	<10	<10	<10

Values represent total concentrations unless noted < =Not detected at indicated reporting limit ---=Not analyzed
[] =Greater than Action Level

METHODS: EPA 8020, 8100. J = The result is estimated. GA-WQS = Georgia Instream Water Quality Standards

TABLE 4

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER

Date: 07/19/96

CONSTITUENT (Units in ug/l)	SITE		MW-10	MW-11	MW-12	MW-13	MW-14
	SAMPLE ID		H833-GW1001	H833-GW1101	H833-GW1201	H833-GW1301	H833-GW1401
	DATE	GA-WQS	05/23/96	05/22/96	05/22/96	05/23/96	05/23/96
Benzene		71.28	<1	[230]	[140]	<50	<1
Ethylbenzene		28718	<1	440	310	1500	<1
Toluene		200000	<1	3600	540	600	<1
Xylene (total)			<1	2100	2700	6200	<1
Acenaphthene			15	<10	<10	<10	<10
Acenaphthylene			<10	<10	<10	<10	<10
Fluorene		14000	10	<10	<10	<10	<10
Naphthalene			<10	<10	<10	<10	<10
1-Methylnaphthalene			<10	<10	<10	<10	<10
2-Methylnaphthalene			<10	<10	<10	<10	<10

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed
[] = Greater than Action Level

METHODS: EPA 8020, 8100. J = The result is estimated. GA-WQS = Georgia Instream Water Quality Standards

TABLE 4

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER

Date: 07/19/96

CONSTITUENT (Units in ug/l)	SITE		MW-15	MW-16	MW-17	MW-18	MW-19
	SAMPLE ID		H833-GW1501	H833-GW1601	H833-GW1701	H833-GW1801	H833-GW1901
	DATE	GA-WQS	05/22/96	05/22/96	05/22/96	05/22/96	05/22/96
Benzene		71.28	<1	<1	<500	20	[390]
Ethylbenzene		28718	<1	<1	1200	110	350
Toluene		200000	<1	<1	16000	17	3300
Xylene (total)			<1	<1	5200	450	1300
Acenaphthene			<10	<10	<10	<10	<10
Acenaphthylene			<10	<10	<10	<10	<10
Fluorene		14000	<10	<10	<10	<10	<10
Naphthalene			<10	<10	30	41	<10
1-Methylnaphthalene			<10	<10	<10	16	<10
2-Methylnaphthalene			<10	<10	<10	23	<10

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed
[] = Greater than Action Level

METHODS: EPA 8020, 8100. J = The result is estimated. GA-WQS = Georgia Instream Water Quality Standards

TABLE 4

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER

Date: 07/19/96

CONSTITUENT (Units in ug/l)	SITE		MW-21	MW-22	MW-23	MW-24	MW-25
	SAMPLE ID		H833-GW2101	H833-GW2201	H833-GW2301	H833-GW2401	H833-GW2501
	DATE	GA-WQS	05/23/96	05/22/96	05/22/96	05/22/96	05/22/96
Benzene		71.28	<1	<2	<1	<1	<1
Ethylbenzene		28718	<1	27	<1	<1	<1
Toluene		200000	<1	<2	<1	<1	<1
Xylene (total)			<1	29	<1	<1	<1
Acenaphthene			<10	<10	<10	<10	<10
Acenaphthylene			<10	<10	<10	<10	<10
Fluorene		14000	<10	<10	<10	<10	<10
Naphthalene			<10	<10	<10	<10	<10
1-Methylnaphthalene			<10	<10	<10	<10	<10
2-Methylnaphthalene			<10	<10	<10	<10	<10

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020, 8100. J = The result is estimated. GA-WQS = Georgia Instream Water Quality Standards

TABLE 4

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER

Date: 07/19/96

CONSTITUENT (Units in ug/l)	SITE		MW-26	MW-27	MW-28	MW-29	MW-30
	SAMPLE ID		H833-GW2601	H833-GW2701	H833-GW2801	H833-GW2901	H833-TB0201
	DATE	GA-WQS	05/22/96	05/22/96	05/23/96	05/22/96	05/22/96
Benzene		71.28	<1	<1	<1	<1	<1
Ethylbenzene		28718	<1	<1	<1	<1	<1
Toluene		200000	<1	<1	<1	2.2	<1
Xylene (total)			<1	<1	<1	<1	<1
Acenaphthene			<10	<10	<10	<10	---
Acenaphthylene			<10	<10	<10	<10	---
Fluorene		14000	<10	<10	<10	<10	---
Naphthalene			<10	<10	<10	<10	---
1-Methylnaphthalene			<10	<10	<10	<10	---
2-Methylnaphthalene			<10	<10	<10	<10	---

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

METHODS: EPA 8020, 8100. J = The result is estimated. GA-WQS = Georgia Instream Water Quality Standards

TABLE 4

HUNTER ARMY AIRFIELD
BUILDING 833
SUMMARY OF CONSTITUENTS DETECTED IN GROUNDWATER

Date: 07/19/96

CONSTITUENT (Units in ug/l)	SITE		MW-30	MW-31	MW-31	MW-32
	SAMPLE ID		H833-GW3001	H833-TB0401	H833-GW3101	H833-GW3201
	DATE	GA-WQS	05/22/96	05/23/96	05/23/96	05/22/96
Benzene		71.28	<1	<1	14	50 J
Ethylbenzene		28718	<1	<1	<5	17
Toluene		200000	<1	<1	<5	14
Xylene (total)			<1	<1	300	400
Acenaphthene			<10	---	<10	<10
Acenaphthylene			<10	---	<10	19
Fluorene		14000	<10	---	<10	<10
Naphthalene			<10	---	15	45
1-Methylnaphthalene			<10	---	<10	<10
2-Methylnaphthalene			<10	---	<10	18

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

METHODS: EPA 8020, 8100. J = The result is estimated. GA-WQS = Georgia Instream Water Quality Standards

TABLE 5

WATER SUPPLY WELLS WITHIN 2-MILE RADIUS

Well I.D.	Quad.	Owner	Total Depth	Casing Depth	Use
302	36Q	City of Savannah 25	540	287	Public
112	36Q	SCL RR, Shops	508	275	Commercial
284	36Q	U.S. Army, Hunter 9	623	270	Public
285	36Q	U.S. Army, Hunter 1	504	259	Public
286	36Q	U.S. Army, Hunter 2	555	260	Public
290	36Q	U.S. Army, Hunter 4	300	90	Not Used
287	36Q	U.S. Army, Hunter 3	370	324	Public
036	36P	City of Savannah 36	414	252	Public
006	37P	City of Savannah 13	1000	270	Public

Quad: Georgia Grid System. The full well name as in Bulletin 113 is 36Q302 but only 302 is listed on the map for brevity.

Sources: Hunter AAF in AT&E, 1993.
GA Geologic Survey, Bulletin 113, 1990.
U.S.G.S. Well Listing, 1991 in AT&E, 1993.

Table 6
DAACG AREA WELL SUMMARY

Location	Screen Interval ft,bgs	Water Depth TOC	TOC Elevation msl	Water Level Elevation msl	Surface Elevation msl
MW1	7.0-17.0	11.73	36.83	25.10	37.0
MW2	7.6-17.6	11.28	37.45	26.17	37.6
MW3	6.0-16.0	9.92	37.55	27.63	37.8
MW4	5.0-15.0	9.98	37.87	27.89	38.1
MW5	6.5-16.5	10.15	37.98	27.83	38.3
MW6	6.0-16.0	9.80	37.71	27.91	37.9
MW7	5.8-15.8	10.34	38.16	27.82	38.5
MW8	7.0-17.0	10.50	37.10	26.60	37.4
MW9	6.0-16.0	9.32	36.76	27.44	37.0
MW10	6.0-16.0	9.36	37.15	27.79	37.3
MW11	6.6-16.6	10.00	34.66	24.66	34.8
MW12	5.6-15.6	10.10	36.40	26.30	36.6
MW13	5.0-15.0	9.79	36.75	26.96	36.9
MW14	5.0-15.0	8.28	35.62	27.34	35.8
MW15	4.7-14.7	7.85	35.74	27.79	35.9
MW16	4.9-14.9	8.19	36.06	27.87	36.3
MW17	6.5-16.5	9.54	35.88	26.34	36.1
MW18	6.6-16.6	10.48	35.40	24.92	35.6
MW19	6.0-16.0	9.18	35.46	26.28	35.8
MW20	7.0-17.0	9.77	36.81	27.04	37.0
MW21	6.0-16.0	9.72	35.82	26.10	36.0
MW22	6.0-16.0	8.74	35.44	26.70	35.7
MW23	5.0-15.0	7.49	34.37	26.88	34.6
MW24	5.0-15.0	8.16	34.79	26.63	34.9
MW25	4.8-14.8	7.94	35.09	27.15	35.3

Table 6 (Continued)
DAACG AREA WELL SUMMARY

Location	Screen Interval ft,bgs	Water Depth TOC	TOC Elevation msl	Water Level Elevation msl	Surface Elevation msl
MW26	4.7-14.7	8.66	36.17	27.51	36.4
MW27	4.5-14.5	7.88	34.79	26.91	35.0
MW28	14.5-24.5	10.15	35.18	25.03	35.3
MW29	4.5-14.5	8.28	36.57	28.29	36.7
MW30	2.9-12.9	8.50	36.76	28.26	36.9
MW31	4.0-14.0	7.71	36.79	29.08	37.0
MW32	4.6-14.6	6.99	36.40	29.41	36.6
Wells measured 5-21-96					

TABLE 7 DAACG AREA GRAIN SIZE ANALYSIS					
		Grain Size Distribution (%)			
Location	Depth (ft, bgs)	Gravel	Sand	Silt/Clay	USCS
WB1	8-10	0	96.4	3.6	SP
WB2	8-10	0	77.8	22.2	SM
WB3	14	0	93.0	7.0	SP-SM
WB4	13-15	0	92.9	7.1	SP-SM
WB5	8-10	0	92.1	7.9	SP-SM
WB6	13-15	0	96.3	3.7	SP
WB7	13-15	0	96.8	3.2	SP
WB8	14	0	91.9	8.1	SP-SM
WB9	13-15	0	94.7	5.3	SP-SM
WB10	13-15	0	93.8	6.2	SP-SM
WB11	13-15	0	98.6	1.4	SP
WB12	10	0	22.2	77.8	CH
WB13	13-15	0	45.5	54.5	CL
WB14	8-10	0	94.7	5.3	SP-SM
WB15	13-15	0	96.6	3.4	SP
WB16	5.3-7.3	0	89.5	10.5	SP-SM
WB17	15	0	93.7	6.3	SP-SM
WB18	15	0	85.0	15.0	SM
WB19	13-15	0	92.4	7.6	SP-SM
WB20	8-10	0	95.9	4.1	SP
WB21	15	0	4.8	95.2	CH
WB22	14	0	91.1	8.9	SP-SM
WB23	8-10	0	95.9	4.1	SP
WB24	8-10	0	84.6	15.4	SM

TABLE 7 (Continued)
DAACG AREA GRAIN SIZE ANALYSIS

TABLE 7 DAACG AREA GRAIN SIZE ANALYSIS					
		Grain Size Distribution (%)			
Location	Depth (ft, bgs)	Gravel	Sand	Silt/Clay	USCS
WB25	13-15	0	72.3	27.7	SM
WB26	3.3-5.3	0	96.3	3.7	SP
WB27	13-15	0	96.1	3.9	SP
WB28	18-20	0	83.8	16.2	SM
WB29	8-10	0	97.8	2.2	SP
WB30	13-15	0	97.7	2.3	SP
WB31	8-10	0	89.4	10.6	SP-SM
WB32	13-15	0	98.7	1.3	SP

Note: WB (well boring) refers to monitoring well location (e.g. WB31 is synonymous with MW31)

APPENDIX A

PASSIVE SOIL GAS SURVEY DATA

DESCRIPTION OF PASSIVE SOIL VAPOR MODULES AND MODULE INSTALLATION AND RETRIEVAL PROCESSES

Each soil vapor module consists of three separate GORE-SORBER® Passive Sorbent Collection Devices (sorbers). A sorber is 40 millimeters (mm) long, with a 3 mm inside diameter (ID), and contains 40 milligrams (mg) of a suitable granular adsorbent material. The three sorbers are sheathed in the bottom of a 4-foot length of vapor-permeable insertion and retrieval cord. Both the retrieval cord and sorbent container are constructed solely of inert, hydrophobic, microporous GORE-TEX® expanded polytetrafluoroethylene.

The hydrophobic nature of the material means that liquid water will be excluded yet they do not retard vapor transfer, thus allowing VOC and SVOC vapors to freely penetrate the module and collect on the adsorbent material. This ability to protect the sorbent media from contact with ground and soil pore water without retarding soil vapor adsorption facilitates the use of the modules in saturated and very low permeability, poorly drained soils.

Installation of the modules was performed by utilizing a slam bar and an electric rotary hammer-drill to create a 3/4-inch-diameter pilot hole for the deployment of the modules to an average depth of 3 to 5 feet below grade. Modules were inserted into the completed boreholes using a stainless steel insertion rod after the pilot hole was completed. The top of each cord was fastened to a cork, which was tamped flush with the ground surface to assist in retrieval of the module, and to seal the annulus of the boring.

The modules were left in place for the recommended 3-week screening period. Module retrieval required field personnel to remove the cork, grasp the retrieval cord and manually pull the module from each location. Corks were separated from the module and discarded. The exposed modules were resealed in their respective designated shipping vials and placed immediately on ice in coolers, along with trip blanks and water temperature control blanks (provided by GORE). Coolers were returned along with the chain-of-custody (COC) form to GORE's laboratory in Elkton, Maryland via overnight carrier. The results of the Screening Survey are summarized in a brief report which includes the chain of custody, laboratory analytical data summary tables, and color contour maps. Excerpts from Gore's report and the BTEX contour map are provided in this Appendix.

GORE
Creative Technologies Worldwide

W. L. GORE & ASSOCIATES, INC.
101 LEWISVILLE ROAD • P.O. BOX 1100 • ELKTON, MARYLAND 21922-1100 PHONE: 410/392-3300
FAX: 410/996-3325 • TELEX 467637 GORE FB ELKT
ENVIRONMENTAL PRODUCTS GROUP

GORE-SORBER℠ Screening Survey
Final Report

Stormwater Drainage System, Hunter Army Airfield
Savannah, GA

February 12, 1996

Prepared For:
Metcalf & Eddy, Inc.
1201 Peachtree Street, NE
400 Colony Square, Suite 1101
Atlanta, GA 30361

W.L. Gore & Associates, Inc.
Written/Submitted by

Jay W. Hodny, M.S.
Associate

W.L. Gore & Associates, Inc.
Reviewed/Approved by

Mark J. Wrigley, P.G.
Product Specialist

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GORE-SORBER[sm] Screening Survey
Final Report

REPORT DATE: February 12, 1996 **AUTHOR:** JWH

SITE INFORMATION

Site Reference: Stormwater Drainage System, Hunter Army Airfield, Savannah, GA
Customer Purchase Order Number: 145694
Gore Production Order Number: 066625 **Gore Site Code:** LO

FIELD PROCEDURES

 # Modules shipped: 735
Installation Date(s): December 11, 12, 13, 18, 19, & 20 1995 **# Modules Installed:** 699
Field work performed by: G. Rowell, K. Shimkus (Metcalf & Eddy, Inc.)

Retrieval date(s): January 3, 9, & 10, 1996
 # Modules Retrieved: 698
 # Modules Lost in Field: 1

Exposure Time: 18 to 23 **[days]**
 # Trip Blanks Returned: 36
 # Unused Modules Returned: 0

Received by at Gore: CJF, TS

Chain of Custody/Cooler	Date/Time Received at Gore	Water Temperature Control Blank temperature - °C
066625B	January 4, 1996/no time recorded	2.5
066625A	January 5, 1996/1:00pm	4.3
066625D	January 5, 1996/2:00pm	3.6*
066625F	January 5, 1996/12:10pm	3.0*
066625E	January 5, 1996/3:00pm	7.4**
066625I	January 10, 1996/1:45pm	3.1*
066625C	January 11, 1996/2:00pm	3.6*
066625J	January 11, 1996/2:25pm	3.9
066625K	January 11, 1996/2:50pm	2.8
066625H	January 11, 1996/2:40pm	2.7
066625G	January 11, 1996/3:20pm	3.8

* - No water control blank was returned in the cooler. Cooler temperature is measured on the ambient air within the cooler.
** - Temperature of the water control blank exceeded the generally accepted criteria for preservation of environmental samples, 4.0 ± 2.0 °C.

Chain of Custody Form attached: √
Chain of Custody discrepancies: See individual COC sheets.
Comments: None.

GORE-SORBER[sm] Screening Survey
Final Report

ANALYTICAL PROCEDURES

NOTE: All data have been archived. Any replicate sorbers not used in the initial analysis will be discarded thirty (30) days from the date of this report.

Laboratory analysis: thermal desorption, gas chromatography, mass selective detection
Quality Assurance Level: 1 (ANA-1)
Instrument ID: # 1 & 2 **Chemist:** JW/WW **Data Subdirectory:** 066625
Compounds/mixtures requested: Gore GS3; Expanded VOCs and SVOCs target list (A5), plus tentative fluids identification on unresolved peak envelopes (UPEs).
Deviations from Standard Method: BFB tuning criteria was based on 2.5 µg, instead 5.0 µg for the analysis dated 1-29-96 to 1-31-96.
Comments: Soil vapor analytes and abbreviations are tabulated in the Data Table Key (page 4).

DATA TABULATION

 # CONTOUR MAPS ENCLOSED: Six (6) B-size color contour maps
LIST OF MAPS ENCLOSED:

- Combined BTEX Masses (BTEX)
- Undecane, Pentadecane, & Tridecane (C11, C15, & C13)
- Naphthalene, 2-Methylnaphthalene, Acenaphthalene, Acenaphthene, & Fluorene (5 PAHs)
- 1,2,4-Trimethylbenzene (1,2,4-TMB)
- Octane
- Unknown C8 Alkane

Compound Name	Low Reporting Limit [µg]	Low Map (gray) Limit [µg]	Highest Detect Level [µg]	Upper Map (purple) Limit [µg]
BTEX	0.01	0.01	360.10	360.10
C11, C15, & C13	0.01	0.01	73.40	73.40
5 PAHs	0.01	0.01	84.31	84.31
1,2,4-TMB	0.01	0.02	34.20	34.20
Octane	0.01	0.02	11.76	11.76
Unknown C8 Alkane	0.01	0.01*	115.92	115.92

* - No method detection limit (MDL) available.

GORE-SORBER[sm] Screening Survey
Final Report

NOTE: All data values presented in Appendix A represent masses of compound(s) desorbed from the GORE-SORBER Screening Modules received and analyzed by W.L. Gore, as identified in the Chain of Custody (Appendix A). The measurement traceability and instrument performance are reproducible and accurate for the measurement process documented. Semi-quantitation of the compound mass is based on either a single-level (QA Level 1) or three-level (QA Level 2) standard calibration.

Comments:

- During the analysis of several modules (see the data table in Appendix A), the masses of hydrocarbons eluting from the instrumentation caused an instrument detector overload (under maximum dilution conditions). As a result, ethylbenzene and m/p-xylene overlapped in the chromatogram and were reported as m/p-xylene, in some cases. Interference by non-target compounds prevented the quantification and reporting of 1,3,5-trimethylbenzene in some samples. In these situations, values reported in the data table were indicated with a ">" sign. This indicates that the microgram levels were at least this high. Quantification of these compounds is integrated up to a point of confidence in the chromatograms. For mapping purposes, those values reported with a ">" sign were set equal to that value. For example, with module #117433, m/p-xylene was reported as >106.35 µg. Thus, this level was set at 106.35 µg in the mapping data table.

- Modules exhibiting unresolved peak envelopes (UPEs) were tentatively identified by matching the UPE to fluids in Gore's fluids library. Metcalf & Eddy, Inc. were interested in tentative matches indicating fluids in the range of aviation fuel products, specifically aviation gasoline and other aviation fuel products.

  The aviation gasoline standard in Gore's fluids library consists primarily of early eluting compounds with a relatively simple chromatographic peak pattern. Other aviation fuel products have chromatographic fingerprints which are more complex and cover a broader range of elution times. Due to the complexity of some of the chromatograms, computer matching was not very helpful. Therefore visual matching was performed using three general categories to classify the chromatographic signal: AVGAS (virtually all signal is consistent with Gore's aviation gasoline standard), AVGAS PLUS (The peak pattern was dominated by aviation gasoline signature peaks but evidence of other unknown products was present), and MIXTURE (these peak patterns were complex, typically indicating fuels in the range of JP4, JP8, Jet A, kerosene. However, early eluting fractions could not be differentiated as being aviation gasoline or light components of these heavier fuels). The results are summarized in Appendix A, Tentative Fluid Matching Results.

- In order to identify potential hydrocarbon distributions which could be associated with different fuel types, the primary peak in aviation gasoline (which may also be present in other fuel types) was tentatively identified as a branched C8 alkane and was mapped. Other analytes that were mapped included normal octane and C11-C15 alkanes, neither of which were present in our aviation gasoline fluid standard. Comparison of the maps show several

areas of impact are common on all maps. The unknown C8 alkane distribution also shows two linear features which are overlaid on the other pattern and may, or may not, be significant.

- Normally, the minimum (gray) contour level, for each mapped analyte or group of analytes, is set at the maximum blank level observed or the method detection limit (MDL), whichever is greater. The maximum contour level is set at the maximum value observed. At the request of Metcalf and Eddy, Inc., the gray level for each map was set at the MDL. The maximum and average blank levels observed were printed on the maps adjacent to the respective color scale bars. The MDL for the Unknown C8 alkane was not available.

GORE-SORBER[sm] Screening Survey
Final Report

KEY TO DATA TABLE
Stormwater Drainage System, Hunter Army Airfield, Savannah, GA

UNITS

µg	micrograms (per sorber), reported for compounds for which external standards were analyzed.

ANALYTES

BTEX	combined masses of benzene, toluene, ethylbenzene and total xylenes (Gasoline Range Aromatics)
C11,C13&C15	combined masses of undecane, tridecane, and pentadecane (C11+C13+C15) (Diesel Range Alkanes)
MTBE	methyl t-butyl ether
t12DCE	trans-1,2-dichloroethene
11DCA	1,1-dichloroethane
c12DCE	cis-1,2-dichloroethene
$CHC1_3$	chloroform
111TCA	1,1,1-trichloroethane
12DCA	1,2-dichloroethane
BENZ	benzene
$CC1_4$	carbon tetrachloride
TCE	trichloroethene
TOL	toluene
OCT	octane
PCE	tetrachloroethene
ClBENZ	chlorobenzene
EtBENZ	ethylbenzene
mpXYL	m-, p-xylene
oXYL	o-xylene
PHENOL	phenol
135TMB	1,3,5-trimethylbenzene
124TMB	1,2,4-trimethylbenzene
TMBs	1,2,4- & 1,3,5-trimethylbenzenes
14DCB	1,4-dichlorobenzene
2MePHENOL	2-methyl phenol
C_{11}/UNDEC	undecane
NAPH	naphthalene
NAPH&2MN	naphthalene & 2-methyl naphthalene
C13/TRIDEC	tridecane
2MeNAPH	2-methyl naphthalene
C15/PENTADEC	pentadecane
5 PAHs	naphthalene, 2-methylnaphthalene, acenaphthene, acenaphthalene, and fluorene

BLANKS

TB n	unexposed trip blanks, which traveled with the exposed modules
BLK n	method blank, retained at Gore

V 20 GORE-SORBER Screening Module Location

N

213.796
166.629
129.867
101.216
78.886
61.482
47.918
37.347
29.107
22.686
17.681
13.780
10.740
8.370
6.524
5.085
3.963
3.089
2.407
1.876
1.462
1.140
0.888
0.692
0.540
0.420
0.328
0.255
0.199
0.155
0.121
0.094
0.073
0.057
0.045
0.035
0.027
0.021
0.016
0.013
0.010

← Max Blank, 0.23 ug

← Average Blank, 0.03 ug

BTEX [ug]

BLDG. 8084

BLDG. 8082

BLDG. 8080

BLDG. 8060

BLDG. 8083

STRACHAN EXT

TAXIWAY NO. 3

300'

250'

Scale 1:3600

250 0 250

(feet)

NOTE: CONTOUR PLOT REPRESENTS MASS OF COMPOUND DESORBED FROM GORE-SORBER SCREENING MODULES, IDENTIFIED AND QUANTIFIED BY GAS CHROMATOGRAPH MASS SELECTIVE DETECTION.

ORIG. CAD: GOREHAF1.DWG

GORE-SORBER SCREENING SURVEY

W.L. GORE & ASSOCIATES, INC.
P.O. BOX 1100
101 LEWISVILLE ROAD
ELKTON, MD 21922-1100
(410) 392-3300

STORMWATER DRAINAGE SYSTEM, HUNTER ARMY AIRFIELD, SAVANNAH, GA

COMBINED BTEX MASSES

METCALF & EDDY, INC., ATLANTA, GA

REV. #: 0

REV. DATE:

DATE DRAWN:	25 JAN 1996	GRID FILE:	BTO1.GRD
DRAWN BY:	JH	PLOT FILE:	BTC.PLT
DATE GRIDDED:	1 FEB 1996	PROJECT NUMBER:	066625
GRIDDED BY:	JH	SITE CODE:	LO

APPENDIX B

FIELD EQUIPMENT CALIBRATION SHEETS

INSTRUMENT CALIBRATION

DATE. 2/27/96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ OVA-FID	~~COND PEN~~ CGI	CGI	HNu-PID
MODEL NUMBER	OVA128	OVA128	MX251	MX251	
SERIAL / ID NUMBER	A42171	A41388	1267	1909	
CALIBRATION STANDARD					
MANUFACTURER	EagleInstr	EagleInstr.	HAZCO	HAZCO	
IDENTIFICATION (LOT #)	029194	029194	43432	43432	
CONCENTRATION	95.5ppm	95.5ppm	50.0%	50.0%	
READING/ADJUSTMENT	90 ppm	89 ppm	50%/20.9 ox	50%/20.9 ox	
ZERO GAS:	ambient	ambient	ambient	ambient	
MANUFACTURER					
IDENTIFICATION (LOT #)					
READING/ADJUSTMENT	0	0	0	0	
BATTERY CHECK:	✓	✓	✓	✓	
TIME CALIBRATED:	0751	0752	0811	0811	
CALIBRATED BY:	DLN	DLN	DLN	DLN	
CALIBRATION CHECK:					
TIME:	1708	1900	1709	1702	
BY:	DLN	DLN	DLN	DLN	
STATUS:	101	92	37	53	
TIME:					
BY:					
STATUS:					

1. OVA-FED: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE. 2/28/96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ OVA PID	~~COND PEN~~ CGI	CGI	HNu-PID
MODEL NUMBER	OVA128	OVA128	MX251	MX251	
SERIAL / ID NUMBER	A42171	A41388	1267	1909	
CALIBRATION STANDARD					
MANUFACTURER	Eagle Instr	Eagle Instr	HAZCO	HAZCO	
IDENTIFICATION (LOT #)	029194	029194	43432	43432	
CONCENTRATION	95.5ppm	95.5ppm	50%	50%	
READING/ADJUSTMENT	100	91	45%/20.9 OK	52%/20.9 OK	
ZERO GAS:					
MANUFACTURER	ambient	ambient	ambient	ambient	
IDENTIFICATION (LOT #)	—	—	—	—	
READING/ADJUSTMENT	0	0	0	0	
BATTERY CHECK:	~~OK~~ low	✓	✓	✓	
TIME CALIBRATED:	0741	0741	0745	0745	
CALIBRATED BY:	DLH	DLH	DLH	DLH	
CALIBRATION CHECK:					
TIME:	Did not	1643	1712	1703	
BY:		DH	WPV	DH	
STATUS:		92	46	60	
TIME:					
BY:					
STATUS:					

1. OVA-FED: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE. 2/29/96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ OVA PID	~~COND PEN~~ CGI	CGI	HNu-PID
MODEL NUMBER	128	128	MX251	MX251	
SERIAL / ID NUMBER	A42171	A41388	1267	1909	
CALIBRATION STANDARD					
MANUFACTURER	EagleInstr	EagleInstr	HAZCO	HAZCO	
IDENTIFICATION (LOT #)	029194	029194	43432	43432	
CONCENTRATION	95.5ppm	95.5ppm	50%	50%	
READING/ADJUSTMENT	94 ppm	92ppm	50%/20.9	50%/20.9	
ZERO GAS:					
MANUFACTURER	ambient	ambient	ambient	ambient	
IDENTIFICATION (LOT #)	—	—	—	—	
READING/ADJUSTMENT	0	0	0	0	
BATTERY CHECK:	✓	✓	✓	✓	
TIME CALIBRATED:	0724	0724	0730	0730	
CALIBRATED BY:	~~DH~~ DH	~~DH~~ DH	BC	BC	
CALIBRATION CHECK:					
TIME:	~~1636~~	1736 ~~0736~~ BC	1730	1736	
BY:	DH	BC	BC	BC	
STATUS:	LO BATT	93 ppm	48%	48%	
TIME:					
BY:					
STATUS:					

1. OVA-FED: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE. 3/4/96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ OVA PID	~~COND PEN~~ CGI	CGI	HNu-PID
MODEL NUMBER	128	128	MX251	MX251	
SERIAL / ID NUMBER	A42171	A41388	1267	1909	
CALIBRATION STANDARD					
MANUFACTURER	EagleInstr	EagleInstr	HAZCO	HAZCO	
IDENTIFICATION (LOT #)	029194	029194	43432	43432	
CONCENTRATION	95.5ppm	95.5ppm	50%	50%	
READING/ADJUSTMENT	96ppm	96ppm	50%/20.9%	50%/20.9%	
ZERO GAS:					
MANUFACTURER	ambient	ambient	ambient	ambient	
IDENTIFICATION (LOT #)	—	—	—	—	
READING/ADJUSTMENT	0	0	0	0	
BATTERY CHECK:	✓	✓	✓	—	
TIME CALIBRATED:	0740	0740	0735	0735	
CALIBRATED BY:	DH	DH	BC	BC	
CALIBRATION CHECK:					
TIME:		1545	1630	1630	
BY:	DH 1530 BC	DH	DH	DH	
STATUS:		90	44	50	
TIME:					
BY:					
STATUS:					

1. OVA-FED: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE. 3/5/96

INSTRUMENT (1)	OVA-FID	OVA pH PEN	COND PEN	CGI	HNu-PID
MODEL NUMBER	128	128	MX 251	MX 251	
SERIAL / ID NUMBER	A 42171	A 41388	1267	1909	
CALIBRATION STANDARD					
MANUFACTURER	Eagle Instr	"	Hach		
IDENTIFICATION (LOT #)	029194	"	#3432		
CONCENTRATION	95.5 ppm		50%		
READING/ADJUSTMENT	90	90	50%/20.9	50%/20.9	
ZERO GAS:					
MANUFACTURER	Ambient	"	"	"	
IDENTIFICATION (LOT #)	—	—	—	—	
READING/ADJUSTMENT	0	0	0	0	
BATTERY CHECK:	OK	OK	OK	OK	
TIME CALIBRATED:	0720	0720	0722	0722	
CALIBRATED BY:	DH	DH	DH	DH	
CALIBRATION CHECK:					
TIME:	1505	1506	1500	1500	
BY:	DH	DH	DH	DH	
STATUS:	96	90	46	50	
TIME:					
BY:					
STATUS:					

1. OVA-FED: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 4/22/96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ OVA-FID	COND PEN	CGI	~~HNu-PID~~ CGI
MODEL NUMBER	OVA128	OVA128		MX251	MX251
SERIAL / ID NUMBER	A42171	A41858		9503405-020	9305079-034
CALIBRATION STANDARD					
MANUFACTURER	American Envir. Instr	American Envir		HAZCO	HAZCO
IDENTIFICATION (LOT #)	45273	45273		43432	43432
CONCENTRATION	97.7 ppm	97.7 ppm		50%LEL/O_2	50%LEL/O_2
READING/ADJUSTMENT	86 ppm	105 ppm		50%/20.94	96/20.9
ZERO GAS:	ambient	ambient			
MANUFACTURER	—	—			
IDENTIFICATION (LOT #)	0	0			
READING/ADJUSTMENT	✓	✓		✓	✓
BATTERY CHECK:	0900	0905		0928	0925
TIME CALIBRATED:	DH	DH		GR	DH
CALIBRATED BY:					
CALIBRATION CHECK:					
TIME:	16:15	16:20		16:25	16:27
BY:	DH	DH		DH	DH
STATUS:	90	100		47%	46
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 4-23-96

INSTRUMENT (1)	OVA-FID	OVA pH PEN	COND PEN	CGI	CGI HNu-PID
MODEL NUMBER	OVA 128	128		MX 251	
SERIAL / ID NUMBER	A 42171	A41858		950340S-020	9305079-054
CALIBRATION STANDARD					
MANUFACTURER	Amer Envir. Inst.			HAZCO	
IDENTIFICATION (LOT #)	45273			43432	
CONCENTRATION	97.7 ppm			50% LEL Pentane	
READING/ADJUSTMENT	93 ppm	100 ppm		50%	50%
ZERO GAS:					
MANUFACTURER	Ambient				
IDENTIFICATION (LOT #)					
READING/ADJUSTMENT	0	0			
BATTERY CHECK:	✓	✓		✓	✓
TIME CALIBRATED:	0715	0715		0720	0720
CALIBRATED BY:	GR	GR		GR	GR
CALIBRATION CHECK:					
TIME:	1710	1710			
BY:	DH	DH		DH	DH
STATUS:	82	105			
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 4-24-96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ OVA	COND PEN	CGI	~~HNu-PID~~ CGI
MODEL NUMBER	128			MX251	
SERIAL / ID NUMBER	A42171	A44858		9503405-020	9305079-034
CALIBRATION STANDARD					
MANUFACTURER	Amer. Envir. Inst			HARCO	
IDENTIFICATION (LOT #)	45273			43432	
CONCENTRATION	97.7 ppm			50% LEL Pentane	
READING/ADJUSTMENT	98 ppm	100 ppm		50%	50%
ZERO GAS:					
MANUFACTURER	Ambient				
IDENTIFICATION (LOT #)	—	—			
READING/ADJUSTMENT	0	0			
BATTERY CHECK:	OK	OK		OK	OK
TIME CALIBRATED:	0730	0730		0720	0720
CALIBRATED BY:	GR	GR		GR	GR
CALIBRATION CHECK:					
TIME:	1650	1650		1645	1645
BY:	GR	GR		GR	GR
STATUS:	Battery Dead	110 ppm		52%	58%
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 4-25-96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ OVA	COND PEN	CGI	~~HNu-PID~~ CGI
MODEL NUMBER	128	—		MX 251	
SERIAL / ID NUMBER	A42171	A41858		9503405-020	9305079-034
CALIBRATION STANDARD					
MANUFACTURER	Amer Env. Inst.			Hazco	
IDENTIFICATION (LOT #)	45273			43432	
CONCENTRATION	97.7 ppm			50% LEL Pentane	
READING/ADJUSTMENT	115 ppm	100 ppm		50%	50%
ZERO GAS:					
MANUFACTURER	Ambient				
IDENTIFICATION (LOT #)	—	—			
READING/ADJUSTMENT	0	0			
BATTERY CHECK:	OK	OK		OK	OK
TIME CALIBRATED:					
CALIBRATED BY:	GL	GL		GL	GL
CALIBRATION CHECK:					
TIME:	1710	1710		1705	1705
BY:	GL	GL		GL	GL
STATUS:	115 ppm	100 ppm		47%	Low Batt.
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 4-29-96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ OVA	COND PEN	CGI	~~HNu-PID~~ CGI
MODEL NUMBER	128			MX251	
SERIAL / ID NUMBER	A42171	A41858		9503405-020	9305079-034
CALIBRATION STANDARD :					
MANUFACTURER :	Amer Env. Inst			HAZCO	
IDENTIFICATION (LOT #)	45273			43432	
CONCENTRATION :	97.7 ppm			50% LEL	Pentane
READING/ADJUSTMENT					
ZERO GAS:					
MANUFACTURER :	Ambient				
IDENTIFICATION (LOT #)	—	—			
READING/ADJUSTMENT	~~0~~	100 ppm		~~50~~	50% LEL
BATTERY CHECK:		OK			OK
TIME CALIBRATED:		0720 GL			0715
CALIBRATED BY:		~~0720~~			GL
CALIBRATION CHECK:					
TIME:		1745			1740
BY:		GL			GL
STATUS:		OK			OK
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 4-30-96

INSTRUMENT (1)	OVA-FID	pH PEN	Hydac ~~COND PEN~~	Hydac ~~CGI~~	HNu-PID
MODEL NUMBER	128		910	910	
SERIAL / ID NUMBER	A41858		9107B	9502	
CALIBRATION STANDARD					
MANUFACTURER	Amex Env. Inst.		Fisher	Fisher	
IDENTIFICATION (LOT #)	45273				
CONCENTRATION	97.7 ppm		105.4/4.00/10.00	105.4/4.00/10.00	
READING/ADJUSTMENT	99 ppm		105.4/4.00/10.00	105.4/4.00/10.00	
ZERO GAS:					
MANUFACTURER	Ambient				
IDENTIFICATION (LOT #)	—				
READING/ADJUSTMENT	0				
BATTERY CHECK:	OK		OK	OK	
TIME CALIBRATED:	0740		0730	0730	
CALIBRATED BY:	CR		CR	CR	
CALIBRATION CHECK:					
TIME:	1740		1730	1730	
BY:	CR		DH	GR	
STATUS:	100 ppm		4.03/10.03 10.18 Cond	4.08/9.60 9.53 Cond	
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 5-1-96

INSTRUMENT (1)	OVA-FID	pH PEN	~~COND PEN~~ Hydac	CGI	HNu-PID
MODEL NUMBER	128		910		
SERIAL / ID NUMBER	A41858		9502		
CALIBRATION STANDARD					
MANUFACTURER	Amer Env. Inst		Fisher		
IDENTIFICATION (LOT #)	45273				
CONCENTRATION	97.7 ppm		105.4/4.00/10.00		
READING/ADJUSTMENT	98		105.4/4.00/10.00		
ZERO GAS:					
MANUFACTURER	Ambient				
IDENTIFICATION (LOT #)					
READING/ADJUSTMENT	0				
BATTERY CHECK:	OK		OK		
TIME CALIBRATED:	0720		0740		
CALIBRATED BY:	DH		GL		
CALIBRATION CHECK:					
TIME:	1310		1305		
BY:	DH		DH		
STATUS:	96		103.2/10.02/4.29		
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 5-7-96

INSTRUMENT (1)	OVA-FID	pH PEN	Hydac ~~COND PEN~~	Hydac ~~CGI~~	HNu-PID
MODEL NUMBER			910	910	
SERIAL / ID NUMBER			9502	9107B	
CALIBRATION STANDARD					
MANUFACTURER			Fisher	Fisher	
IDENTIFICATION (LOT #)					
CONCENTRATION			105.4/4.00/10.00	105.4/4.00/10.00	
READING/ADJUSTMENT			105.4/4.00/9.62	105.4/4.00/10.00	
ZERO GAS:					
MANUFACTURER					
IDENTIFICATION (LOT #)					
READING/ADJUSTMENT					
BATTERY CHECK:			OK	OK	
TIME CALIBRATED:			0730	0730	
CALIBRATED BY:			GL	GL	
CALIBRATION CHECK:					
TIME:			1735	1702	
BY:			GL	DH	
STATUS:			97.7/4.05/9.60	92.8/4.44/10.08	
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 5-8-96

INSTRUMENT (1)	OVA-FID	pH PEN	~~COND PEN~~ Hydac	~~CGI~~ Hydac	HNu-PID
MODEL NUMBER			910	910	
SERIAL / ID NUMBER			9502	9107B	
CALIBRATION STANDARD					
MANUFACTURER			Fisher	Fisher	
IDENTIFICATION (LOT #)					
CONCENTRATION			105.4/4.00/10.00	105.4/4.00/10.00	
READING/ADJUSTMENT			105.4/4.00/10.00	105.4/4.03/10.02	
ZERO GAS:					
MANUFACTURER					
IDENTIFICATION (LOT #)					
READING/ADJUSTMENT					
BATTERY CHECK:			OK	OK	
TIME CALIBRATED:			0715	0650	
CALIBRATED BY:			GL	DH	
CALIBRATION CHECK:					
TIME:			1755	1140	
BY:			DH	DH	
STATUS:			105.8/4.12/10.21	104.8/4.08/9.87	
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 5-9-96

INSTRUMENT (1)	OVA-FID	pH PEN	~~COND PEN~~ Hydac	~~CGI~~ Hydac	HNu-PID
MODEL NUMBER			910	910	
SERIAL / ID NUMBER			9502	91073	
CALIBRATION STANDARD					
MANUFACTURER			Fisher	Fisher	
IDENTIFICATION (LOT #)					
CONCENTRATION			105.4/4.00/7.00	105.4/4.00/7.00	
READING/ADJUSTMENT			105.4/4.01/7.11	105.4/4.00/7.00	
ZERO GAS:					
MANUFACTURER					
IDENTIFICATION (LOT #)					
READING/ADJUSTMENT					
BATTERY CHECK:			OK	OK	
TIME CALIBRATED:			0655	0645	
CALIBRATED BY:			GR	DH	
CALIBRATION CHECK:					
TIME:			1740	1730	
BY:			GR	DH	
STATUS:			105.2/4.98/7.20	101.3/3.97/6.74	
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 5-10-96

INSTRUMENT (1)	OVA-FID	pH PEN	+Hydac ~~COND~~ PEN	Hydac ~~CGI~~	HNu-PID
MODEL NUMBER			910	910	
SERIAL / ID NUMBER			9502	9107B	
CALIBRATION STANDARD					
MANUFACTURER			Fisher	Fisher	
IDENTIFICATION (LOT #)					
CONCENTRATION			105.4/7.00/4.00		
READING ADJUSTMENT			105.4/7.00/4.00	/ /	
ZERO GAS:					
MANUFACTURER					
IDENTIFICATION (LOT #)					
READING ADJUSTMENT					
BATTERY CHECK:					
TIME CALIBRATED:			0710	instrument failure (DD/out)	
CALIBRATED BY:			DH		
CALIBRATION CHECK:					
TIME:			1550	1010	
BY:			DH	DH	
STATUS:			105.2/7.10/4.02	105.4/7.02/4.00	
TIME:				1520	
BY:				DH	
STATUS:				100.6/7.12/4.23	

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 5-21-94

INSTRUMENT (1)	OVA-FID	Hydac pH PEN	COND PEN	CGI	HNu-PID
MODEL NUMBER	128	910			
SERIAL / ID NUMBER	A41858	9308			
CALIBRATION STANDARD					
MANUFACTURER	Amer. Env. Inst.	Fisher			
IDENTIFICATION (LOT #)	45273	—			
CONCENTRATION	97.7ppm	105.4/7.00/4.00			
READING/ADJUSTMENT	99 ppm	105.3/7.00/4.00			
ZERO GAS:					
MANUFACTURER	Ambient				
IDENTIFICATION (LOT #)	—				
READING/ADJUSTMENT	0				
BATTERY CHECK:	O.K.				
TIME CALIBRATED:	0740	1350			
CALIBRATED BY:	GR	GR			
CALIBRATION CHECK:					
TIME:	1800				
BY:	GR				
STATUS:	100 ppm				
TIME:		105.6/7.00/4.01			
BY:		GR			
STATUS:		1800			

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 5-22-96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ Hydac	~~COND PEN~~ Hydac	CGI	HNu-PID
MODEL NUMBER		910	910		
SERIAL / ID NUMBER		9308	9304		
CALIBRATION STANDARD					
MANUFACTURER		Fisher	Fisher		
IDENTIFICATION (LOT #)		—			
CONCENTRATION		105.4/4.00/7.00	105.4/4.0/7.0		
READING/ADJUSTMENT		105.4/4.01/7.00	105.4/3.99/7.0		
ZERO GAS:					
MANUFACTURER					
IDENTIFICATION (LOT #)					
READING/ADJUSTMENT					
BATTERY CHECK:			✓		
TIME CALIBRATED:		0730	1100		
CALIBRATED BY:		DH	GR		
CALIBRATION CHECK:					
TIME:		1800	1805		
BY:		105.2/3.98/7.01	105.2/4.00/7.01		
STATUS:		CA	CA		
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

INSTRUMENT CALIBRATION

DATE: 5-23-96

INSTRUMENT (1)	OVA-FID	~~pH PEN~~ Hydac	COND PEN	CGI	HNu-PID
MODEL NUMBER		910			
SERIAL / ID NUMBER		9308			
CALIBRATION STANDARD					
MANUFACTURER		Fisher			
IDENTIFICATION (LOT #)		—			
CONCENTRATION		105.4/4.00/7.00			
READING/ADJUSTMENT		105.4/4.00/7.01			
ZERO GAS:					
MANUFACTURER					
IDENTIFICATION (LOT #)					
READING/ADJUSTMENT					
BATTERY CHECK:		OK			
TIME CALIBRATED:		0700			
CALIBRATED BY:		GA			
CALIBRATION CHECK:					
TIME:		1300			
BY:		GA			
STATUS:		105.2/4.00/7.02			
TIME:					
BY:					
STATUS:					

1. OVA-FID: Organic Vapor Analyzer, Flame Ionization Detector manufactured by Foxboro

   pH PEN: Electronic pH tester manufactured by Fisher Brand

   COND PEN: Total dissolved solids tester with automatic temperature correction. Manufactured by Fisher Brand.

   CGI: Combustible Gas Indicator manufactured by Industrial Scientific Devices.

   HNu-PID: Photo - Ionization Detector manufactured by HNu.

APPENDIX C

SOIL AND GROUNDWATER SAMPLING SHEETS

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 3/5/96 Location H833-SB01'

Samplers Used D Howard D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Partly cloudy, temp 60°F, slight breeze

Soil/sediment sampling parameters:

Description of sample see boring log

Time of sample collection 0820-SB0101 / 0830-SB0102

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry) _____

David Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-580201

Samplers Used SS spoons
SS split spoon
Al pie pans

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Pale yellow - silty sand

Time of sample collection 1342

Depth of water (for sediment sampling) _____

Decontamination (page number reference) QAP A-27

Spoons or spatulas 5 (up) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 (up) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Vem

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB020Z

Samplers Used SS - Spoon
SS - Split Spoon
AL - PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample White - Silty Sand

Time of sample collection 1400

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 5 (Used) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons _____

Photograph frame numbers 5 (Used) ✓

Signature (of field team personnel making data entry) _____

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB0203

Samplers Used SS- SPOON
SS- SPLIT SPOON
AL- Pie Pans

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample White - silty sand

Time of sample collection 1420

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas STAINLESS ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons STAINLESS ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Hyp

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 7/27/96 Location #833-SB020F

Samplers Used

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample White - silty sand

Time of sample collection 1430

Depth of water (for sediment sampling)

Decontamination (page number reference) CDAP A-27

Spoons or spatulas S(NA) ✓

Trowel

Hand corer

Hand auger

Bowls

Split spoons S(NA) ✓

Photograph frame numbers

Signature (of field team personnel making data entry)

W. Ven

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 3/5/96 Location H833-SB03

Samplers Used D Howard, D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Partly sunny, temp 60-65°F, slight breeze

Soil/sediment sampling parameters:

Description of sample see boring log

Time of sample collection 0850-SB0301 / 0900-SB0302

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry)

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB0401

Samplers Used SS - SPOON
SS - SPLIT SPOON
AI - PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt. Brown - Gray

Time of sample collection 1500

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 5 (UPN) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 (UPN) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Verry

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB0402

Samplers Used SS-spoon
SS-split spoon
AT-pie plate

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt Brown-Gray

Time of sample collection 1505

Depth of water (for sediment sampling)

Decontamination (page number reference) CDAP A-27

Spoons or spatulas SS/SPOON ✓

Trowel

Hand corer

Hand auger

Bowls

Split spoons SS/SPOON ✓

Photograph frame numbers

Signature (of field team personnel making data entry)

W. Hay

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location HP33-SB0403

Samplers Used SS- SPOON
SS- SPLIT SPOON
AL- PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Dark red-gray

Time of sample collection 1515

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas ~~5~~ 4 ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ~~5~~ 4 ✓

Photograph frame numbers _____

Signature (of field team/personnel making data entry) _____

W. Very

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB0404

Samplers Used SS-SPOON
SS- SPLIT SPOON
AI - PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Dark red-gray

Time of sample collection 1520

Depth of water (for sediment sampling)

Decontamination (page number reference) COAP-A-27

Spoons or spatulas SP ✓

Trowel

Hand corer

Hand auger

Bowls

Split spoons SP ✓

Photograph frame numbers

Signature (of field team personnel making data entry)

W. Wright

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 3/5/96 Location H833-SB05

Samplers Used D Howard, D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Clear + sunny, temp 65°F, slight breeze

Soil/sediment sampling parameters:

Description of sample see boring log

Time of sample collection 1025-SB0501 + dup SB0503 / 1032-SB0502

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry)

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB0601

Samplers Used SS-SPOON
SS-SPLIT SPOON
AL-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt. Yellow Brown

Time of sample collection 1630

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas SPOON ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons SPOON ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry)

W. Vey

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB0602

Samplers Used SS-SPOON
SS-SPLIT SPOON
AL-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Brown silty sand

Time of sample collection 1645

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB0603

Samplers Used SS-SPOON
SS-SPLIT SPOON
AL-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt Gray

Time of sample collection 1655

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas STEAM ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons STEAM ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Henry

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/27/96 Location H833-SB060F

Samplers Used

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 85°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Olive - Silty sand

Time of sample collection 1705

Depth of water (for sediment sampling)

Decontamination (page number reference) CDAP A-27

Spoons or spatulas ST (WP) ✓

Trowel

Hand corer

Hand auger

Bowls

Split spoons ST (WP) ✓

Photograph frame numbers

Signature (of field team personnel making data entry)

W. Vey

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB07

Samplers Used D Howard, D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Overcast, temp 60°F, slight breeze

Soil/sediment sampling parameters:

Description of sample SB0701 medium brown sand / SB0702 medium brown sand with petro odor

Time of sample collection 1135 / 1150

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry) _____

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 3/5/96 Location H833-SB08

Samplers Used D Howard, D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Partly Clear + sunny, temp 65°F, slight breeze

Soil/sediment sampling parameters:

Description of sample see boring log

Time of sample collection 0950 - H833-SB0801 / 09 1004 - SB0802

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry)

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB0901

Samplers Used SS-SPOON
SS- SPLIT SPOON
AL-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy-High 65°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Gray Brown

Time of sample collection 1615

Depth of water (for sediment sampling) ________

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 6 (up) ✓

Trowel ________

Hand corer ________

Hand auger ________

Bowls ________

Split spoons 6 (up) ✓

Photograph frame numbers ________

Signature (of field team personnel making data entry) W. Vega

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 3/4/96 Location H833-SB0902

Samplers Used SS-SPOON
SS- SPLIT SPOON
AT-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Sunny - High 70°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Pale Yellow

Time of sample collection 1625

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 66 ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 66 ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Key

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB1001

Samplers Used SS - SPOON
SS - SPLIT SPOON
AT - DIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 75°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt Brown - Gray

Time of sample collection 0830

Depth of water (for sediment sampling)

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 53(AT) ✓

Trowel

Hand corer

Hand auger

Bowls

Split spoons 53(AT) ✓

Photograph frame numbers

Signature (of field team personnel making data entry)

W. Ley

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB1002

Samplers Used SS - SPOON
SS - SPLIT SPOON
AF - PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 75°

Soil/sediment sampling parameters: 8020/8104/DRO/GRO

Description of sample Lt. Gray

Time of sample collection 0845

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 5 (WPV) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 (WPV) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Vogel

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB1003

Samplers Used SS - SPOON
SS - SPLIT SPOON
AL - PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 75°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt. Gray

Time of sample collection 0910

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 5 (WA) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 (WA) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W Vang

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB1004

Samplers Used SS-SPLIT SPOON
SS-SPOON
AI-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy-High 75°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample OLIVE

Time of sample collection 0925.

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 5 (CDAP) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 (CDAP) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Vey

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location 1+833-SB11

Samplers Used D Howard, D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Overcast, windy, temp. 65-70°F chance of rain

Soil/sediment sampling parameters: SB1101 SB1102

Description of sample medium brown silty sand / medium brown silty sand

Time of sample collection 1255 / 1315

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry)

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB12

Samplers Used D Howard D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy, chance of additional rain, breezy. 65-70°F

Soil/sediment sampling parameters:

Description of sample see boring log

Time of sample collection H833-SB1201 1615 / H833-SB1202 0~~1~~6~~-8~~ 1635

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry)

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB13

Samplers Used D Howard D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy, chance of additional rain, breezy DH 65-70°F

Soil/sediment sampling parameters: SB1301 SB1302

Description of sample medium brown silty sand / medium brown silty sand

Time of sample collection 1525 / 1540

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas Spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry) _____

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB14

Samplers Used D Howard D Humphries

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Partly cloudy, slight breeze cool temp ≈ 55°F

Soil/sediment sampling parameters: SB1401 / SB1402

Description of sample top soil + medium brown silty sand / cream color silty sand

Time of sample collection 0825 / 0845

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoons

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry) _____

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB1501

Samplers Used SS - SPLIT SPOON
SS - SPOON
AT - PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt. Yellow Brown

Time of sample collection 1055

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 5 ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Very

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB1502

Samplers Used SS- SPLIT SPOON
SS- SPOON
AT- PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Dark Brown

Time of sample collection 1100

Depth of water (for sediment sampling) _____

Decontamination (page number reference) QAP A-27

Spoons or spatulas 59 (up) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 59 (up) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Vaye

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB16

Samplers Used D Howard, D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Partly cloudy, slight breeze, temp 55°F

Soil/sediment sampling parameters: SB1601 SB1602

Description of sample light brown silty sand / rusty brown silty sand

Time of sample collection 0915 / 0930

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry)

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB1701

Samplers Used SS-SPOON
SS-SPLIT SPOON
AI-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8029/8021/DRO/GRO

Description of sample Dark Brown

Time of sample collection 1120

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas ~~SS~~ (WP) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ~~SS~~ (WP) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Ley

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location #833-SB1702

Samplers Used SS-SPOON
SS-SPLIT SPOON
AT-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Dark Brown

Time of sample collection 1130

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP- A-27

Spoons or spatulas Spoon ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons Spoon ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB18

Samplers Used D Howard D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Partly cloudy, breezy, temp 55°F

Soil/sediment sampling parameters: SB1801 SB1802

Description of sample light brown silty sand / light cream silty sand

Time of sample collection 1025 / 1040

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location 1833-SB1901

Samplers Used SS- SPLIT SPOON
SS - SPOON
AL - PIEPAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Brown Yellow

Time of sample collection 0955

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas ~~5~~ ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ~~5~~ ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Kay

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB1902

Samplers Used SS-SPLIT SPOON
SS- SPOON
AL- PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt. Gray

Time of sample collection 1010

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-2D

Spoons or spatulas ~~5~~ (4) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons _____

Photograph frame numbers ~~5~~ (4) ✓

Signature (of field team personnel making data entry) W. Wright

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB20

Samplers Used D Howard D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Partly cloudy, slight breeze, temp 55°F

Soil/sediment sampling parameters: SB2001 / SB2002 + Dup SB2003

Description of sample light brown silty sand / light brown to white silty sand

Time of sample collection 1110 / 1125

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry) _____

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB2101

Samplers Used SS-SPLIT SPOON
SS-SPOON
AI-PIE PLATE

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt. Gray

Time of sample collection 1530

Depth of water (for sediment sampling)

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 5 (WA) ✓

Trowel

Hand corer

Hand auger

Bowls

Split spoons 5 (WA) ✓

Photograph frame numbers

Signature (of field team personnel making data entry)

W. Vey

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB2101

Samplers Used SS- SPLIT SPOON
SS- SPOON
AI- PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Lt. Gray

Time of sample collection 1530

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 5 ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Vang

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location HP33-SB2102

Samplers Used SS- SPLIT SPOON
SS - SPOON
AI - PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Cloudy - High 65°

Soil/sediment sampling parameters: 8020/8100/PRO/GRO

Description of sample Lt. Gray

Time of sample collection 1540

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-2D

Spoons or spatulas 5 ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Very

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/29/96 Location H833-SB22

Samplers Used D Howard, D Humphris

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather Partly cloudy, slight breeze, temps 55-60°F

Soil/sediment sampling parameters: SB2201 / SB2202

Description of sample slight odor medium brown silty sand / rusty brown silty sand petro odor

Time of sample collection 1345 / 1416

Depth of water (for sediment sampling) _____

Decontamination (page number reference) _____

Spoons or spatulas spoon

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons ✓

Photograph frame numbers None

Signature (of field team personnel making data entry)

Daniel Howard

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB2301

Samplers Used SS-SPLIT SPOON
SS- SPOON
AL-PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 75°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Gray-Brown

Time of sample collection 1100

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-2D

Spoons or spatulas 53 (4PV) ✓

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 53 (4PV) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____

W. Very

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB2302

Samplers Used SS- SPLIT SPOON
SS- SPOON
AL- PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 75°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Yellow-red

Time of sample collection 1115

Depth of water (for sediment sampling)

Decontamination (page number reference) CDAP A-27

Spoons or spatulas 53 (WP) ✓

Trowel

Hand corer

Hand auger

Bowls

Split spoons 53 (WP) ✓

Photograph frame numbers

Signature (of field team personnel making data entry)

W. Vang

FIELD LOGBOOK SOIL/SEDIMENT SAMPLING DATA

Date 2/28/96 Location H833-SB2303

Samplers Used SS- SPLIT SPOON
SS- SPOON
AI- PIE PAN

Drawing of sampling location (including location description as well as the presence of debris, surface sheens, recent excavations, vegetation, etc.)

Weather P. Cloudy - High 75°

Soil/sediment sampling parameters: 8020/8100/DRO/GRO

Description of sample Yellow - Red

Time of sample collection 1135

Depth of water (for sediment sampling) _____

Decontamination (page number reference) CDAP A-2D ✓

Spoons or spatulas 5 (4 UP)

Trowel _____

Hand corer _____

Hand auger _____

Bowls _____

Split spoons 5 (4 UP) ✓

Photograph frame numbers _____

Signature (of field team personnel making data entry) _____