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INITIAL REMEDIAL ACTION AND CONTAMINATION ASSESSMENT REPORT ADDENDUM SITE 3710N NAVAL AVIATION DEPOT NAS PENSACOLA FL

11/4/1994

NAVY PUBLIC WORKS CENTER

INITIAL REMEDIAL ACTION AND CONTAMINATION ASSESSMENT REPORT ADDENDUM

NAVAL AVIATION DEPOT
SITE 3810N
NAVAL AIR STATION
PENSACOLA, FLORIDA

PREPARED BY:

NAVY PUBLIC WORKS CENTER
BUILDING 3691, NAS PENSACOLA
PENSACOLA, FL 32508-6500

AUTHOR: GREG CAMPBELL, P.E.

NOVEMBER 4, 1994

PREPARED FOR:

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
2155 EAGLE DRIVE
NORTH CHARLESTON, SC 29418

LUIS VAZQUEZ, CODE 1843, ENGINEER-IN-CHARGE

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Z 716 466 629

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PS Form **3800**, June 1991

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Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1 00
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	6 10
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P 259 400 708

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190 RADFORD BLVD.	
PENSACOLA, FL 32508-5303	
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Restricted Delivery Fee	
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TOTAL Postage & Fees	6 10
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PS Form **3800**, June 1991

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SENDER:
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- Print your name and address on the reverse of this form so that we can return this card to you.
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I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Florida Dept. of Env. Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

ATTN: ERIC NUZIE

4a. Article Number
Z 716 466 629

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

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SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
ABB ENVIRONMENTAL SERVICES INC.
2590 EXECUTIVE CENTER CIRCLE "E"
BERKELEY BLDG.
TALLAHASSEE, FL 32301

attn: MARK DIBLIN

4a. Article Number
P 259 400 709

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
12/4

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

PROFESSIONAL REVIEW CERTIFICATION

The Initial Remedial Action and Contamination Assessment Addendum contained in this report was prepared using sound, hydrogeologic principles and judgement. This assessment is based on the geologic investigation and associated information detailed in the text and appended to this report. If conditions are determined to exist that differ from those described, the undersigned engineer should be notified to evaluate the effects of any additional information on the assessment described in this report. This Initial Remedial Action and Contamination Assessment Report was developed for the diesel fuel leak located north of NADEP Building 3810 at the Naval Air Station, Pensacola, Florida and should not be construed to apply to any other site.

Greg Campbell
Professional Engineer
P.E. No. 38572

12/9/94
Date

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Pensacola, Florida

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Contamination Assessment Report Addendum

Site 3810N, Naval Aviation Depot
Pensacola, Florida

1.0 INTRODUCTION

The Naval Aviation Depot (NADEP) Pensacola, Florida, is a tenant command located on NAS facilities within the Pensacola Naval Base Complex. The Pensacola Naval Base Complex is located on the western edge of Pensacola Bay on State Route 295 (See Figure 1-1). The mission of NADEP is to provide aircraft maintenance and rework.

The Navy Public Works Center Pensacola was contracted on September 1993 by the Southern Naval Facilities Engineering Command (Southern Division) to perform the following services at NADEP site 3810.

(1) perform initial remedial action by removing confirmed petroleum contaminated soil at NADEP site 3810N at a depth of 3 feet below the water table.

(2) perform immediate remedial action by removing any free product from the groundwater table.

(3) provide a supplemental soil and groundwater contamination assessment upon completion of the initial remedial action activities.

The results of the initial remedial action activities and supplemental soil and groundwater contamination assessment are presented herein.

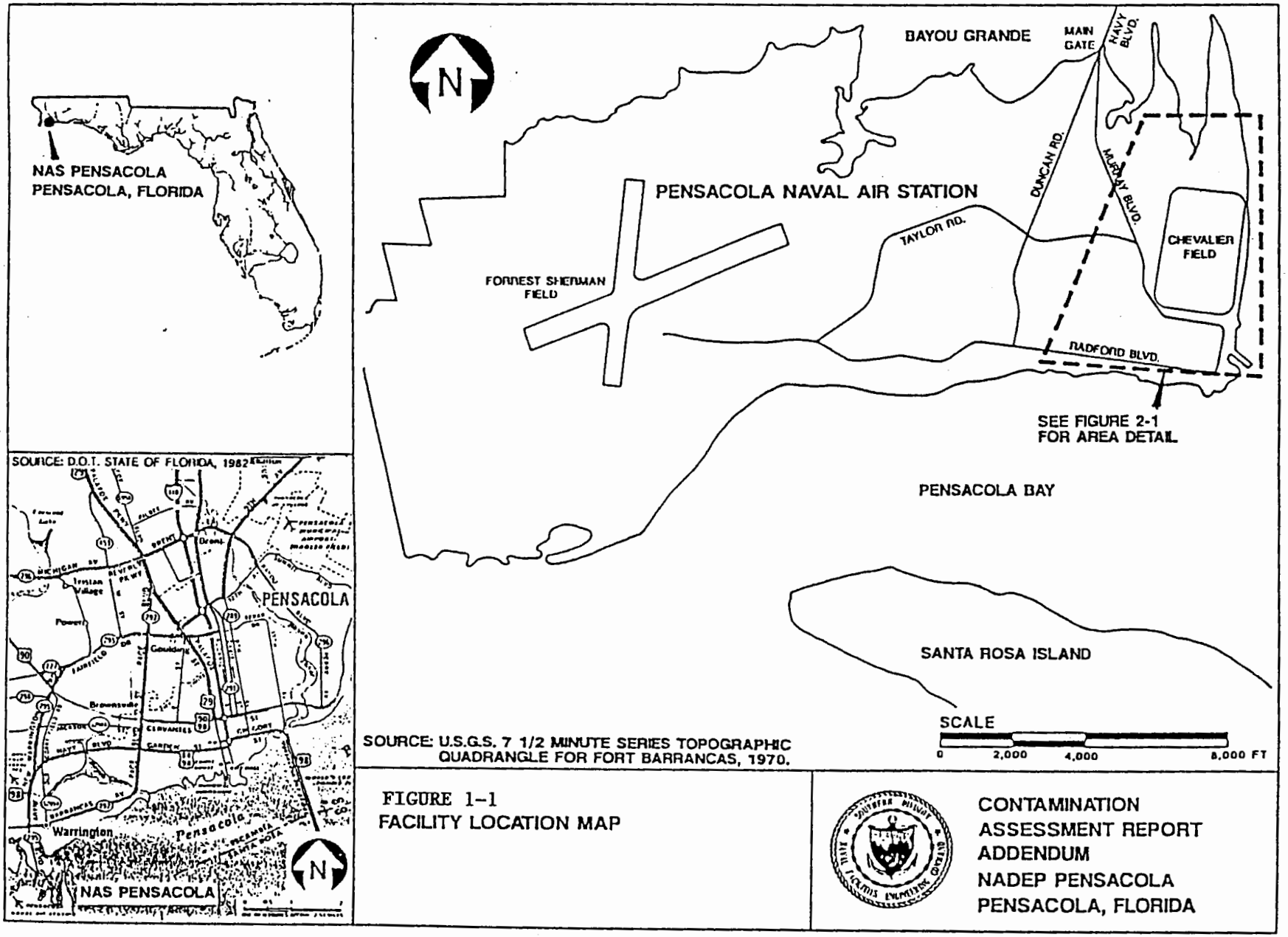


FIGURE 1-1
FACILITY LOCATION MAP

CONTAMINATION
ASSESSMENT REPORT
ADDENDUM
NADEP PENSACOLA
PENSACOLA, FLORIDA

2.0 SITE BACKGROUND [1]

2.1 SITE DESCRIPTION. Building 3810 is located on the north perimeter of Chevalier Field (see Figure 2-1). Activities in and around this building include the testing of helicopter blades. Site 3810N is the former location of a 500-gallon UST used for fuel oil storage, located on the north side of Building 3810 (Figure 2-2). The area in the immediate vicinity of the former UST is a small grassy area surrounded by asphalt. A creek exists approximately 60 feet north of Building 3810 and runs east into Pensacola Bay.

2.2 SITE HISTORY. The former fuel oil UST was installed in 1982. During the tank removal and replacement program, the UST was removed and replaced with an aboveground storage tank (AST), located approximately 15 feet northwest of the former UST location. The AST was removed from the site in 1992. A composite soil sample was collected from the UST excavation and analyzed for TRPH. The reported TRPH concentration of 1,600 parts per million (ppm) exceeded the State target level of 50 ppm for petroleum contaminated soils (FDER, May 1992) and, therefore, warranted further investigation pursuant to Chapter 17-770, FAC.

2.3 PREVIOUS SITE INVESTIGATION. A contamination assessment (CA) was conducted at Site 3810N by ABB-ES from January 1992 through August 1992. This CA included the advancement of 19 soil borings and the installation of 12 monitoring wells (ABB-ES, 1992).

Soil samples were collected from each soil boring and analyzed for volatile organic compounds (VOC) by organic vapor analyzer (OVA) headspace analyses. Groundwater samples were collected from monitoring wells PEN-3810N-MW1 through PEN-3810N-MW10D on February 5, 1992. These monitoring wells and two additional wells, PEN-3810N-MW11 and PEN-3810N-MW12, were sampled on April 23, 1992, to verify the concentrations of compounds reported in the February 5, 1992, analytical results, and to assess if contaminants had migrated downgradient into the creek located north of the site. Samples were analyzed for constituents of the kerosene analytical group, as defined in Chapter 17-770, FAC.

The findings of the CAR are summarized below (ABB-ES, 1992).

- The groundwater flow direction at the site is north-northeast.
- OVA headspace analyses of soils indicate that excessively petroleum-contaminated soil were present in a small area in the vicinity of the former UST (Figure 2-2). The vertical extent of soil contamination appeared to be restricted to within 1 foot of the water table (ABB-ES, 1992).

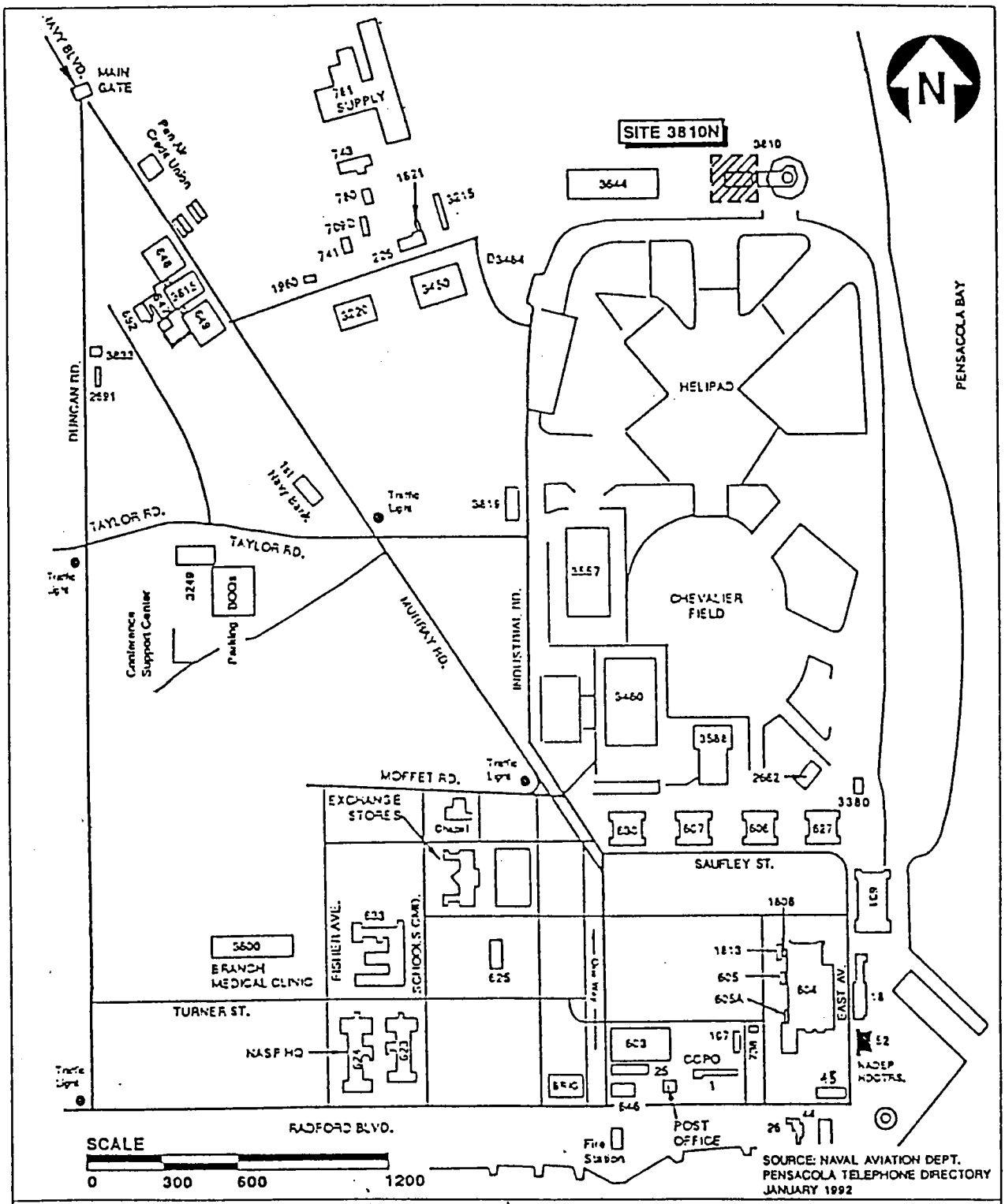


FIGURE 2-1
SITE LOCATION MAP
SITE 3810N

CONTAMINATION ASSESSMENT REPORT ADDENDUM
NADEP PENSACOLA
PENSACOLA, FLORIDA

- Laboratory results of groundwater samples collected February 5, 1992, and April 23, 1992, indicated that groundwater contamination exceeded State target levels or recommended guidance concentrations for fluorene, phenanthrene, total volatile organic aromatics (total VOA), total naphthalenes, and TRPH.

- Groundwater contamination appeared generally to coincide with the area of excessive soil contamination and does not appear to be migrating offsite. No contamination was detected in the samples collected from the downgradient wells PEN-3810N-MW7, PEN-3810N-MW8, and PEN-3810N-MW9.

- The vertical extent of groundwater contamination appeared to be less than 15 feet below land surface (bls) in the area downgradient of the former UST. Groundwater contamination in well PEN-3810N-MW10D, which is screened from 15 to 20 feet bls, was below State target levels.

- No potable water wells were identified within a 0.25-mile radius of the site.

A *Monitoring Only Plan (MOP)* was submitted in the CAR. Upon completion of review, FDER requested that an additional field investigation, involving the installation of one additional downgradient shallow well and an additional round of groundwater sampling, be performed at the site to assess if contaminants were migrating offsite between wells PEN-3810N-MW8 and PEN-3810N-MW9.

On January 12 and 13, 1993, an additional field investigation was performed at Site 3810N to address comments and concerns posed by FDER pertaining to the CAR. To fulfill FDER requirements, an additional well (PEN-3810N-MW13) was installed between monitoring wells PEN-3810N-MW8 and PEN-3810N-MW9 to further define the extent of the contaminant plume and to further assess if groundwater contamination was migrating offsite. Additionally, each of the 13 monitoring wells was sampled on January 13, 1993, and analyzed by U.S. Environmental Protection Agency (USEPA) Methods 602, 610, and 418.1. A CAR Addendum was prepared by ABB-ES and submitted to FDEP on March 1993. A summary of the field investigation and findings of the CAR Addendum are discussed below (ABB-ES, 1993).

- The groundwater flow direction at the site is northerly, which is consistent with data from the CAR.

- Volatile organic aromatics (VOA) were detected in samples collected from four monitoring wells (PEN-3810N-MW1, PEN-3810N-MW11, PEN-3810N-MW12, and PEN-3810N-MW13). Total VOA (the sum of the concentrations

of benzene, ethyl benzene, toluene, and xylenes) concentrations ranged from 2 to 9 parts per billion (ppb), which are below the State target level of 50 ppb.

- Methyl tert-butyl ether (MTBE) was detected in samples collected from two monitoring wells, PEN-3810N-MW2 and PEN-3810N-MW4, at concentrations of 1 and 2 ppb, respectively. These concentrations are below the State target level for MTBE of 50 ppb.

- Total naphthalenes, fluorene, and phenanthrene were detected in only the samples collected from monitoring wells PEN-3810N-MW11 and PEN-3810N-MW12. Fluoranthene was detected in only the sample collected from well PEN-3810N-MW1. Total naphthalene concentrations were below State target levels. Fluorene, phenanthrene, and fluoranthene were detected in concentrations exceeding State recommended concentrations.

- TRPH was detected in groundwater samples collected from monitoring wells PEN-3810N-MW1, PEN-3810N-MW2, PEN-3810N-MW11, and PEN-3810N-MW12 at concentrations ranging from 29 to 140 parts per million (ppm). These concentrations exceed the State target level of 5 ppm. The approximate area of TRPH contamination (5 ppm isocon) is shown in the Executive Summary Figure.

The CAR Addendum concluded that the areal extent of soil and groundwater contamination appeared to coincide and that the groundwater contamination did not appear to be migrating offsite. Therefore, the CAR Addendum recommended a "Monitoring Only Plan" (MOP) for Site 3810N.

After reviewing the CAR Addendum for site 3810N, FDEP requested additional groundwater sampling because the TRPH results in the CAR Addendum indicated an increase in TRPH levels from previous sampling events. Specifically, FDEP requested that four existing monitoring wells (MW-1, MW-2, MW-11 and MW-12) be resampled and analyzed for TRPH to verify "high" TRPH levels.

On May 26, 1993, ABB-ES personnel revisited Site 3810N to resample the wells per FDEP's comments and found wells MW-1 and MW-2 to be contaminated with free product. Product thickness in wells MW-1 and MW-2 was 0.02 feet and .045 feet, respectively. During their July 6, 1993 site visit, free product was observed in monitoring wells MW-1 and MW-11. Water bailed from MW-2 did not have free product but had a strong petroleum odor. Because of the presence of free product, the proposed MOP could not be approved by FDEP.

ABB-ES noted that it appears that the increase in TRPH levels and the appearance of free product was a result of groundwater coming into contact with excessively contaminated soil. They noted that the areal extent of contamination is restricted to the immediate vicinity of the former UST. Thus, ABB-ES recommended that the soil in this area be excavated to a depth approximately 3 feet below the groundwater table and backfilled with clean soil.

Luis Vazquez contracted the Navy Public Works Center, Pensacola in August 1993 to excavate the contaminated soil, install one monitoring well and resample the new and existing monitoring wells at the site for the kerosene analytical group described in Rule 17-770, FAC. The installation of a dewatering system would also be required in order to excavate the soil 3 feet below the groundwater table.

A meeting between FDEP representatives Mr. Jorge Caspary and Mr. Tim Barr, representatives from the Navy Public Works Center and Southern Division Naval Facilities Engineering Command, and ABB-ES was held on September 16, 1993 concerning NADEP site 3810N. At this meeting the Navy proposed to: (1) excavate approximately 200 cubic yards of soil at a depth approximately 3 feet below the land surface; (2) install a dewatering system to remove free product and to lower the groundwater table in order to excavate the soil 3 feet below the groundwater table; (3) discharge the effluent from the dewatering system into the Navy Public Works Center's industrial wastewater treatment plant; (4) operate the dewatering system no longer than three days; (5) backfill the excavation area with clean soil; (6) install one monitoring well near the area where the UST was removed; and (7) collect groundwater samples from each remaining monitoring well and analyze each sample for the kerosene analytical group described in Rule 17-700, FAC.

In a letter dated September 21, 1993, the Navy Public Works Center requested an alternate procedure for Rule 17-700.300(2), FAC to allow dewatering at the site for a maximum of three days in order to excavate the soil 3 feet below the groundwater table. The alternate procedure to allow dewatering at the site was approved by FDEP's approval order letter dated January 19, 1994 (See Appendix A). A description of activities associated with the soil removal and the supplemental groundwater and soil assessment activities/results are presented in the following sections.

3.0 INITIAL REMEDIAL ACTION ACTIVITIES

This section discusses the initial remedial action activities performed at NADEP site 3810N which included the extraction of groundwater and subsequent removal of petroleum contaminated soil to a depth 3 feet below the water table. The limits of the soil excavation were determined from the OVA analysis of the soil during the CAR (ABB, Inc. 1992). Figure 3-1 shows the OVA results of the soil boring samples from the CAR. Also depicted in Figure 3-1 is the areal extent of excessively contaminated soil as noted by the 10 ppm and 50 ppm isoconcentration lines. As shown in Figure 3-1, the limits of soil excavation performed on April 4 and 5, 1994 encompasses all of the excessively contaminated soil (10 ppm and greater) at the site. Before the excavation could begin the following activities were performed between March 22, 1994 and April 3, 1994:

(1) All utilities in the excavation area were marked by PWC survey crew prior to the start of excavation. The utilities survey confirmed that a concrete high voltage electrical duct (3 feet by 1.5 feet) passed through the center of the excavation area at a depth of approximately 4 feet below land surface.

(2) The soil contamination was located in close proximity to building 3810 and transformer pad. In order to protect the building and transformer foundations during the excavation, sheet piles were driven around the perimeter of the north side of the building 3810 and the east side of the transformer foundation.

(3) The asphalt pavement and fence in the excavation area were removed.

(4) A dewatering system was installed around the perimeter of the area to be excavated.

Soil removal activities commenced on April 4, 1994 and were completed by PWC Environmental Department personnel on April 5, 1994.. The dewatering system was operated during this period as allowed by FDEP's alternate procedure agreement. It is estimated that 20,000 gallons of groundwater was pumped during the operation of the dewatering system. The purged groundwater generated during the dewatering operation was discharged to PWC's Industrial Wastewater Treatment System. The high voltage concrete conduit was shored underneath utilizing pretreated 6" x 6" wood timber. Approximately 385 tons of petroleum contaminated soil were removed and transferred by PWC personnel to Perdido Key Landfill for disposal. ABB Inc. personnel monitored soil removal

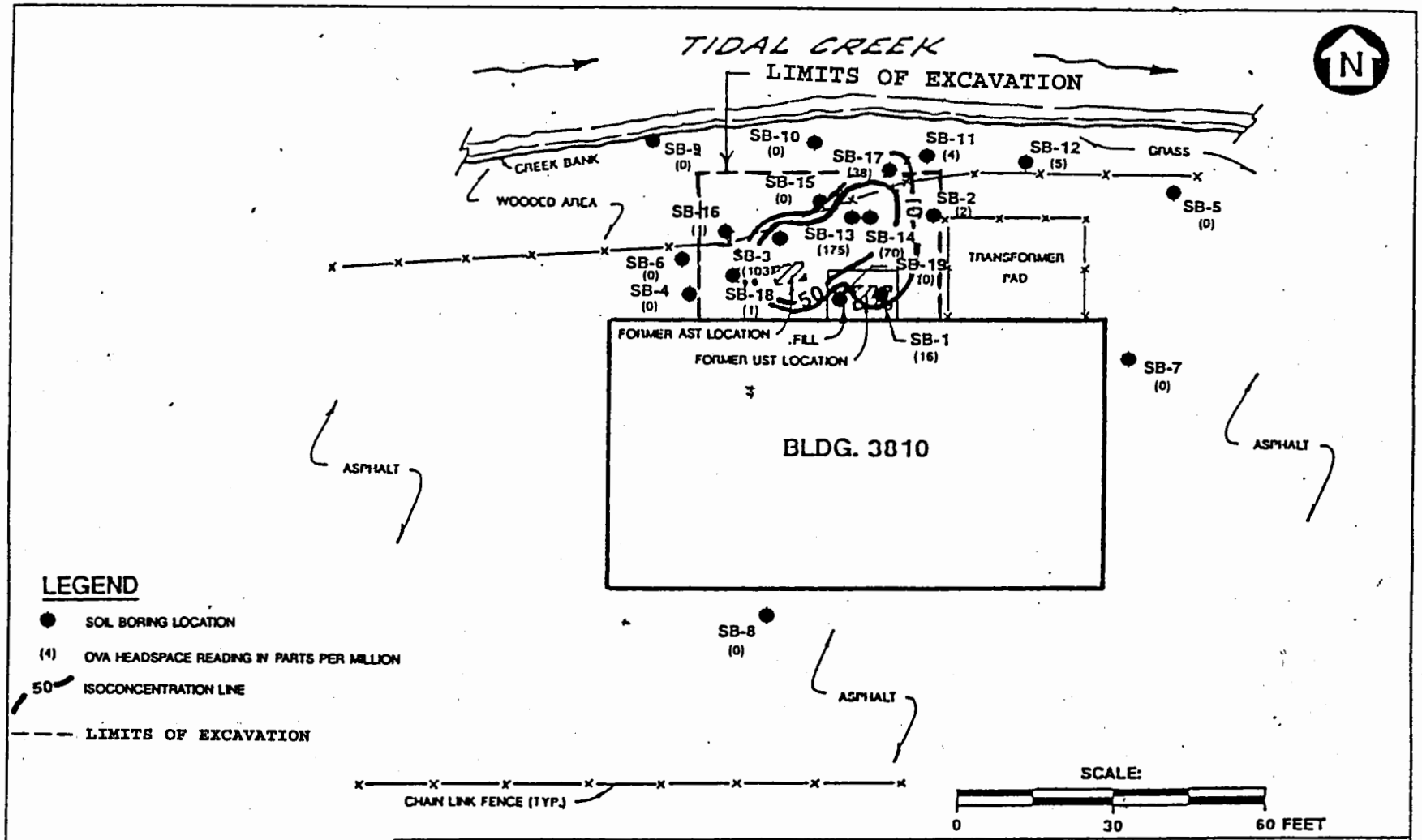


FIGURE 3-1
SOIL CONTAMINATION DISTRIBUTION MAP, JANUARY 11 THROUGH AUGUST 3, 1992, AND LIMITS OF EXCAVATION PERFORMED ON APRIL 4 AND 5, 1994

SITE 3810N
NADEP PENSACOLA
PENSACOLA, FLORIDA

Table 3–1
Volatile Organic Compounds (VOCs) Concentrations in Soil
Confirmatory Soil Borings SB–1 through SB–7
April 14, 1994

Technical Memorandum
Site 3810N, Naval Aviation Depot
Pensacola, Florida

Confirmatory Boring Designation	Depth (feet bls)	VOCs Concentration (ppm)[1]
SB–1	1.0 TO 1.5	<1
SB–1	4.0 TO 4.5	<1
SB–2	1.0 TO 1.5	<1
SB–2	4.0 TO 4.5	4
SB–3	1.0 TO 1.5	<1
SB–3	4.0 TO 4.5	7
SB–4	1.0 TO 1.5	<1
SB–4	4.0 TO 4.5	5
SB–5	1.0 TO 1.5	<1
SB–5	4.0 TO 4.5	2
SB–6	1.0 TO 1.5	6
SB–6	4.0 TO 4.5	<1
SB–7	1.0 TO 1.5	<1
SB–7	4.0 TO 4.5	<1

[1] VOCs concentrations assessed by organic vapor analyzer headspace techniques.

Notes: bls = below land surface.
ppm = parts per million.
Soil samples analyzed and VOC results reported by ABB, Inc., Tallahassee, FL.

activities utilizing an organic vapor analyzer (OVA) to confirm that all petroleum contaminated soil (<10 ppm) was removed. The excavation hole was backfilled with "clean soil". Seven additional confirmatory soil borings were advanced by ABB, Inc. on April 14, 1994, to confirm that the backfill soil was "clean". Borings were advanced to approximately 4.5 feet below land surface (bls), and soil samples were collected from each boring at 1.0 to 1.5 feet bls and at 4.0 to 4.5 feet bls. VOC concentrations were assessed by OVA headspace techniques. OVA headspace readings for each soil sample are presented in Table 3-1. VOC concentrations are below the State standard of 10 parts per million for clean soil. Figure 3-2 shows the locations of the confirmatory soil borings and the highest VOC concentrations for each boring. Also shown in Figure 3-2 are the approximated areal extent of excavated soil, the former locations of underground and aboveground storage tanks, existing monitoring well locations, and other pertinent surface features. Upon completion of the confirmatory soil borings the site was repaved with asphalt and the fence reinstalled to restore the site back to original status.

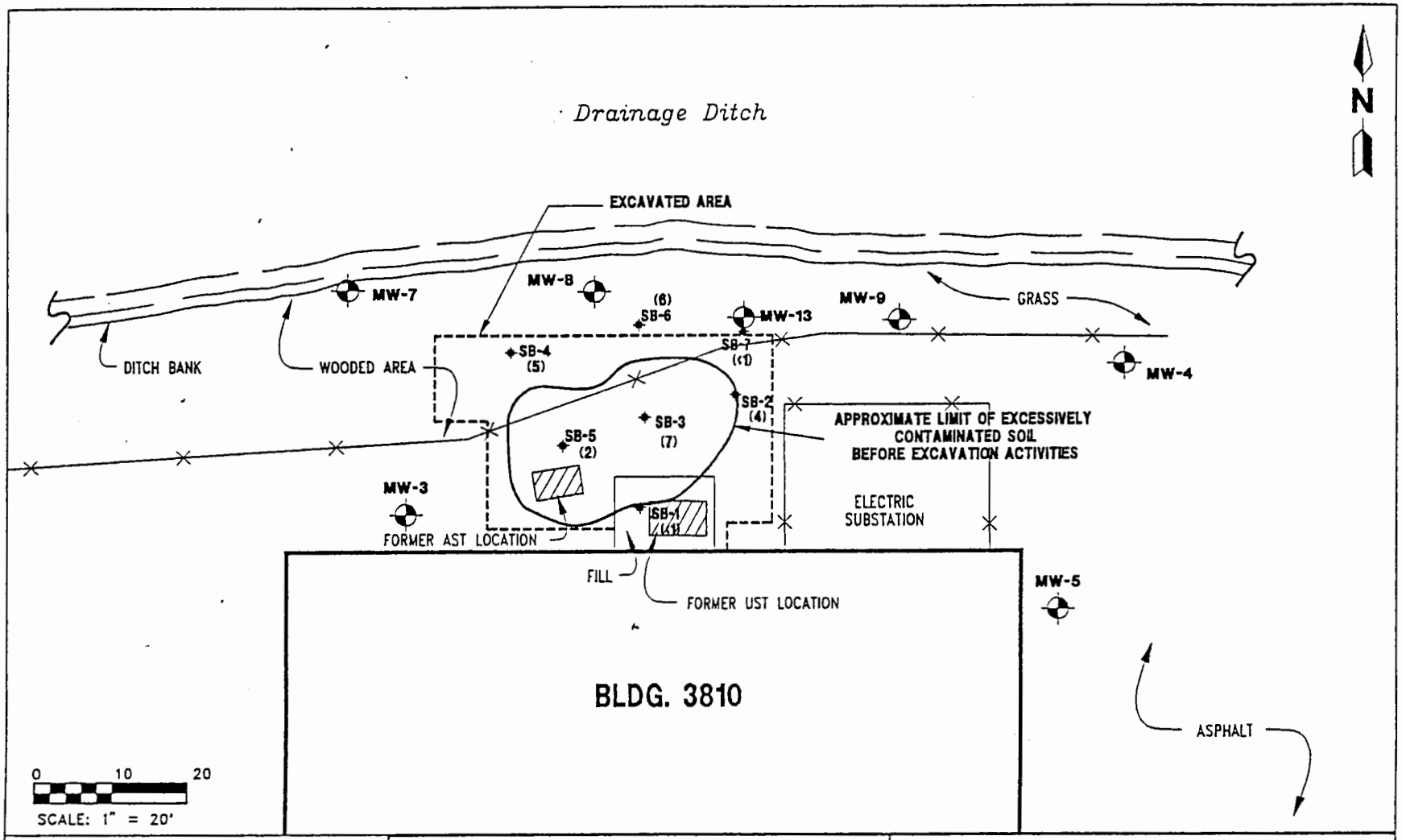


FIGURE 3 -2
VOLATILE ORGANIC COMPOUNDS IN SOIL,
APRIL 14, 1994

SITE 3810N

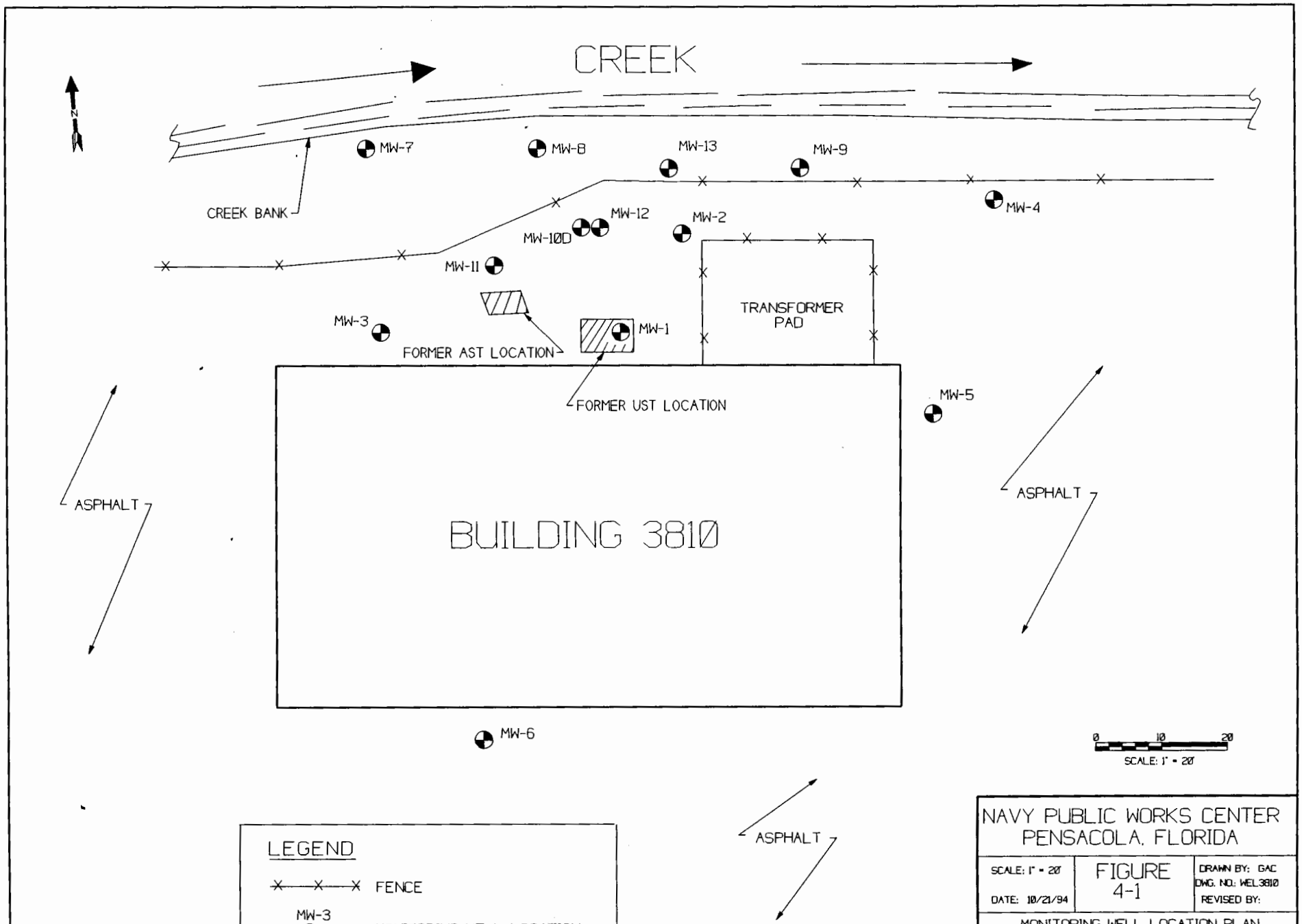
NADEP PENSACOLA
PENSACOLA, FLORIDA

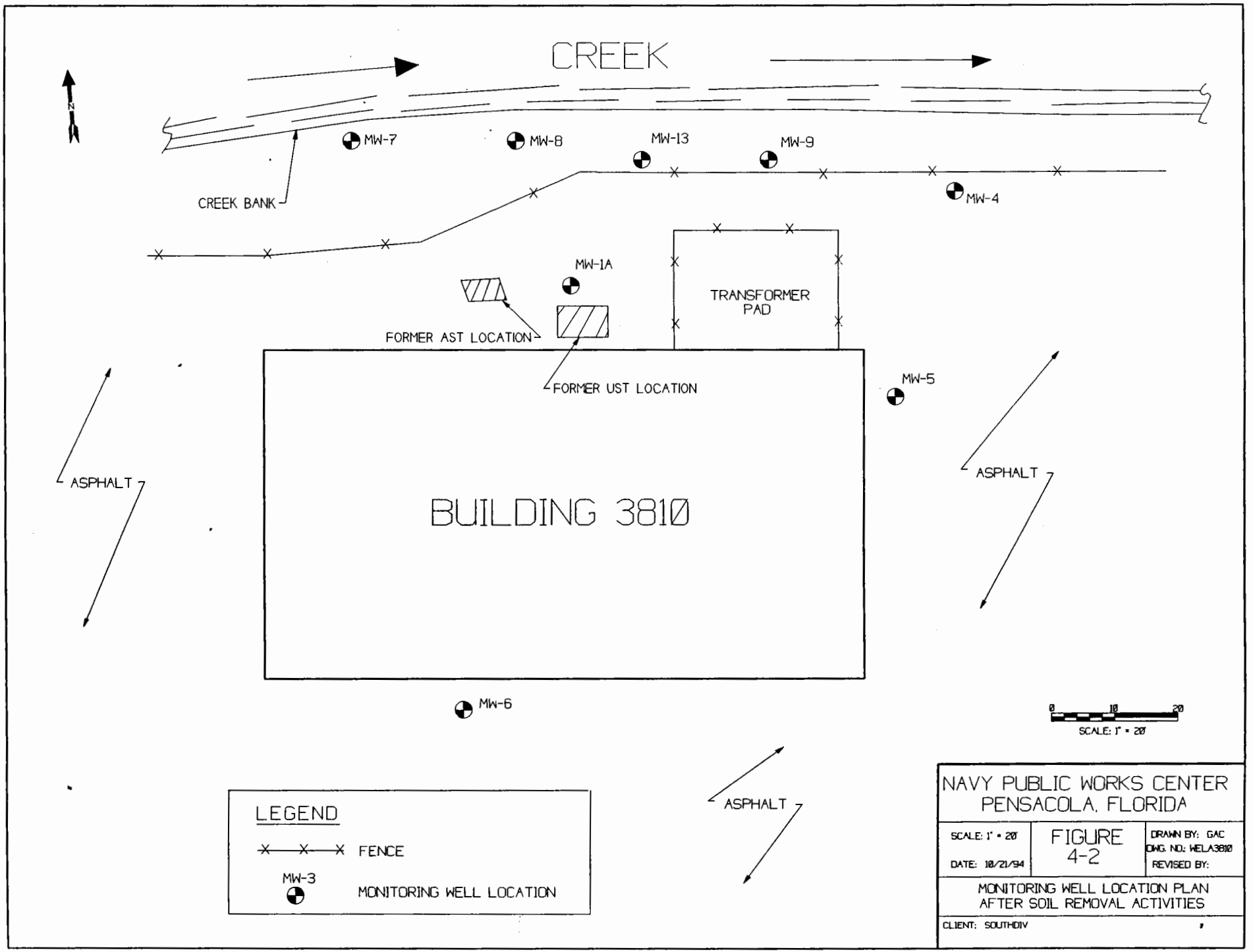
4.0 DISCUSSION OF GROUNDWATER MONITORING RESULTS

4.1 Monitoring Well Demolition. Monitoring wells MW-1, MW-2, MW-3, MW-10D, MW-11 and MW-12 were demolished during the contaminated soil excavation operation. Figure 4-1 shows all monitoring wells which were installed prior to the start of the excavation activities. The Navy informed FDEP that these wells would require removal during the 16 September 1993 meeting in Tallahassee and by letter submitted to FDEP on September 21, 1993. PWC Pensacola also notified the Northwest Florida Water Management District by letter that these wells would be demolished and removed.

4.2 Monitoring Well Construction. Although six monitoring wells were to be demolished during soil excavation activities, Navy and FDEP representatives agreed in their September 16, 1993 meeting that only one monitoring well would be required to be installed after the soil excavation and subsequent filling activities were complete. Both parties agreed that the monitoring well would be installed near the former location of the underground storage tank since this was the area of highest groundwater contamination. Therefore, monitoring well MW-1A was installed at this locaction on September 1, 1994 to a depth of 15 feet below land surface (bls) and constructed of 2-inch inside diameter, schedule 40, polyvinyl chloride casing with flush-threaded joints and 12.5 feet of 0.010-inch machine-slotted screen. PVC well casing extends from the top of the screen to land surface. A 20/30 grade silica sand filter pack was placed in the annular space between the outside of the bore hole and outside edge of the well screen to the top of the well screen. A 1 to 1.5 foot thick fine sand filter pack was then placed on top of the 20/30 sand filter pack. The remaining annular space was grouted to the surface with a neat cement grout. A protective traffic-bearing, 8" mounted manhole cover was installed to complete the well construction. The monitoring well is equipped with a locking well cap and padlock. See Appendix B for well construction details of monitoring well MW-1A. The location of monitoring well MW-1A and the remaining wells after soil excavation and filling activities is shown in Figure 4-2.

4.3 Groundwater Assessment Results. Groundwater samples were collected from monitoring wells MW-1A, MW-4, MW-6, MW-7, MW-8, MW-9 and MW-13 by Analytical Technology Incorporated (ATI) personnel on October 4, 1994. Groundwater samples were analyzed for the kerosene analytical group shown in Florida Administrative Code (FAC) 62-770.600(8)(b). The Navy Public Works Center


CREEK
N
MW-7
MW-8
MW-13
MW-9
CREEK BANK
MW-4
MW-12
MW-2
MW-10D
MW-11
TRANSFORMER PAD
MW-3
MW-1
FORMER AST LOCATION
FORMER UST LOCATION
MW-5
ASPHALT
ASPHALT
BUILDING 3810
MW-6
0 10 20
SCALE: 1" = 20'
ASPHALT
LEGEND
FENCE
MW-3
MONITORING WELL LOCATION
NAVY PUBLIC WORKS CENTER
PENSACOLA, FLORIDA
SCALE: 1" = 20'
DATE: 10/21/94
FIGURE 4-1
DRAWN BY: GAC
DWG. NO.: WEL3810
REVISED BY:
MONITORING WELL LOCATION PLAN
BEFORE SOIL REMOVAL ACTIVITIES
CLIENT: SOUTHDIV


CREEK
CREEK BANK
MW-7
MW-8
MW-13
MW-9
MW-4
MW-1A
TRANSFORMER PAD
FORMER AST LOCATION
FORMER UST LOCATION
MW-5
ASPHALT
ASPHALT
BUILDING 3810
MW-6
ASPHALT
0 10 20
SCALE: 1" = 20'
LEGEND
FENCE
MW-3
MONITORING WELL LOCATION
NAVY PUBLIC WORKS CENTER
PENSACOLA, FLORIDA
SCALE: 1" = 20'
DATE: 10/21/94
FIGURE 4-2
DRAWN BY: GAC
DWG. NO: WELA3810
REVISED BY:
MONITORING WELL LOCATION PLAN
AFTER SOIL REMOVAL ACTIVITIES
CLIENT: SOUTHDIV

laboratory performed all analysis with the exception of TRPH and EDB which were performed by ATI, Inc.. A summary of the volatile organic compound analyses of groundwater samples collected from monitoring wells MW-1A, MW-4, MW-6, MW-7, MW-8, MW-9 and MW-13 are shown in Table 4-1. A summary of the polynuclear aromatic hydrocarbon analyses of groundwater samples collected from monitoring wells MW-1A, MW-4, MW-6, MW-7, MW-8, MW-9 and MW-13 are shown in Table 4-2. A summary of the TRPH, Total Lead and Ethylene Dibromide (EDB) analyses for monitoring wells MW-1A, MW-4, MW-6, Mw-7, MW-8, MW-9 and MW-13 are shown in Table 4-3. As shown in Tables 4-1 through 4-3, monitoring wells MW-1A, MW-4, MW-6, MW-7, MW-9 and MW-13 were BDL for all parameters. Monitoring well MW-8 was BDL for all parameters except for lead at 4 ppb. Full laboratory analytical reports are included in Appendix C, which also includes the detection limits for each parameter.

Groundwater Technology, Inc. measured monitoring wells MW-1A, MW-4, MW-6, MW-7, MW-8, MW-9 and MW-13 for free product on November 2, 1994. An oil/water interface probe was utilized to determine thickness of free product in each well. No free product was detected in any of the monitoring wells forementioned above.

4-4 GROUNDWATER FLOW DIRECTION. Groundwater level measurements were taken from each monitoring well by ATI personnel prior to groundwater sampling on October 4, 1994. The calculated groundwater elevation at monitoring well MW-13 (4.28) was approximately 1 foot higher than surrounding wells MW-7, MW-8 and MW-9. This suggests that ATI personnel probably inadvertently reported the groundwater level at this well 1 foot less than actually was measured. Therefore, the October 4, 1994 water level measurement and subsequent calculated groundwater elevation at monitoring well MW-13 groundwater level was not taken into account when determining the groundwater flow direction. Groundwater level measurements at the monitoring wells were taken by PWC personnel on October 26, 1994. The calculated groundwater elevations for the monitoring wells confirmed that the groundwater level measured at monitoring well MW-13 on October 4, 1994 is likely in error. The top of casing (TOC) elevations for all the wells except MW-1A and MW-13 were given by ABB, Inc., Tallahassee office personnel on October 21, 1994. PWC survey crew surveyed the TOC elevations for MW-1A and MW-13 on October 25, 1994. Groundwater elevations for the groundwater level measurements taken on October 4, 1994 and October 26, 1994 are shown in Tables 4-1 and 4-2, respectively. Groundwater elevation and direction maps for the October 4, 1994 and October 26, 1994 groundwater level measurements are shown in Figures 4-3 and 4-4, respectively. The groundwater elevations indicate the groundwater flow is north, toward the creek, which is consistent with that found in the CAR and CAR addendum.

TABLE 4-1

SUMMARY OF GROUNDWATER SAMPLE LABORATORY RESULTS
FOR VOLATILE ORGANIC COMPOUNDS

COMPOUND	MONITORING WELLS						
	MW-1A	MW-4	MW-6	MW-7	MW-8	MW-9	MW-13
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromochloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromoform	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromomethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Chlorotoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-Chlorotoleune	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibromochloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dibromo-3-Chloropropane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dibromoethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibromomethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
trans-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloropropane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-Dichloropropane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,2-Dichloropropane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloropropene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobutadiene	BDL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 4-1 (Continued)

SUMMARY OF GROUNDWATER SAMPLE LABORATORY RESULTS
FOR VOLATILE ORGANIC COMPOUNDS

COMPOUND	MONITORING WELLS						
	MW-1A	MW-4	MW-6	MW-7	MW-8	MW-9	MW-13
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1,2-Tetrachloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,3-Trichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichlorethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MTBE	BDL	BDL	BDL	BDL	BDL	BDL	BDL

NOTE: BDL = Below Detection Limit

TABLE 4-2

SUMMARY OF GROUNDWATER SAMPLE LABORATORY RESULTS FOR POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

COMPOUND	MONITORING WELLS						
	MW-1A	MW-4	MW-6	MW-7	MW-8	MW-9	MW-13
Acenaphthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1-Methylnaphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Methylnaphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL

NOTE: BDL = Below Detection Limit

TABLE 4-3

SUMMARY OF GROUNDWATER SAMPLE LABORATORY RESULTS FOR TOTAL RECOVERABLE PETROLEUM HYDROCARBON (TRPH) LEAD AND ETHYLENE DIBROMIDE (EDB)

COMPOUND	MONITORING WELLS						
	MW-1A	MW-4	MW-6	MW-7	MW-8	MW-9	MW-13
TRPH	BDL	BDL	BDL	BDL	BDL	BDL	BDL
LEAD	BDL	BDL	BDL	BDL	0.004	BDL	BDL
EDB	BDL	BDL	BDL	BDL	BDL	BDL	BDL

NOTE: BDL = Below Detection Limit
All results are in parts per million (ppm)

Table 4-1

Top of Casing and Groundwater Elevations
October 4, 1994

Well Number	October 4, 1994		
	TOC Elevation (ft)	DTW (ft)	Groundwater Elevation (ft)
MW-1A	7.88	4.50	3.38
MW-4	6.82	3.42	3.40
MW-6	8.63	4.86	3.77
MW-7	5.08	1.76	3.32
MW-8	5.79	2.39	3.40
MW-9	6.44	3.06	3.38
MW-13	6.43	2.15	4.28

Notes: TOC = Top of casing
DTW = Depth to water (ft)

TOC elevations for all monitoring wells, with the exception of MW-1A, were provided by Pam Wagner, ABB, Inc., Tallahassee, FL on October 24, 1994. PWC survey provided TOC elevation for MW-1A on October 24, 1994.

All elevations are in NAS Datum.

Table 4-2

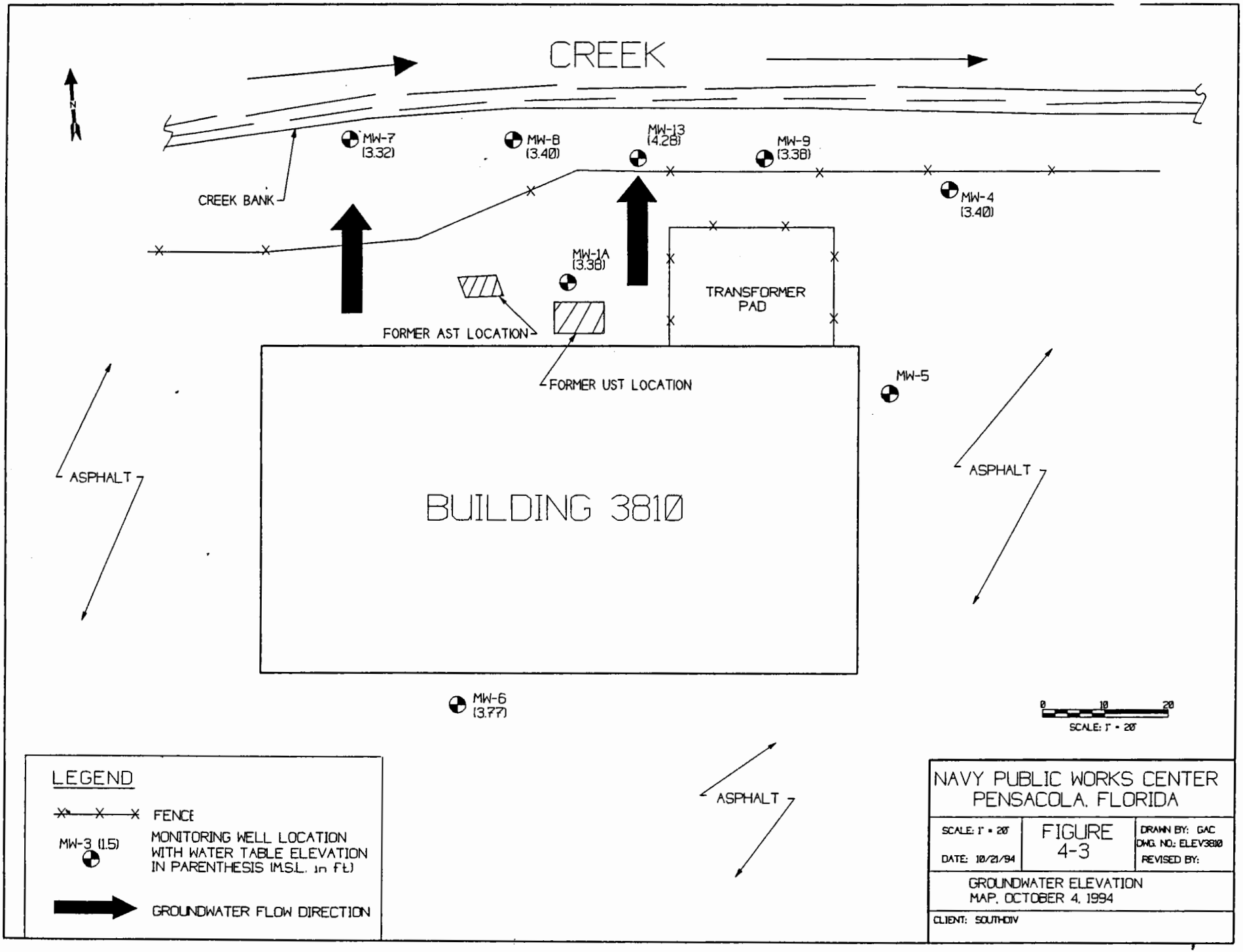
Top of Casing and Groundwater Elevations
October 26, 1994

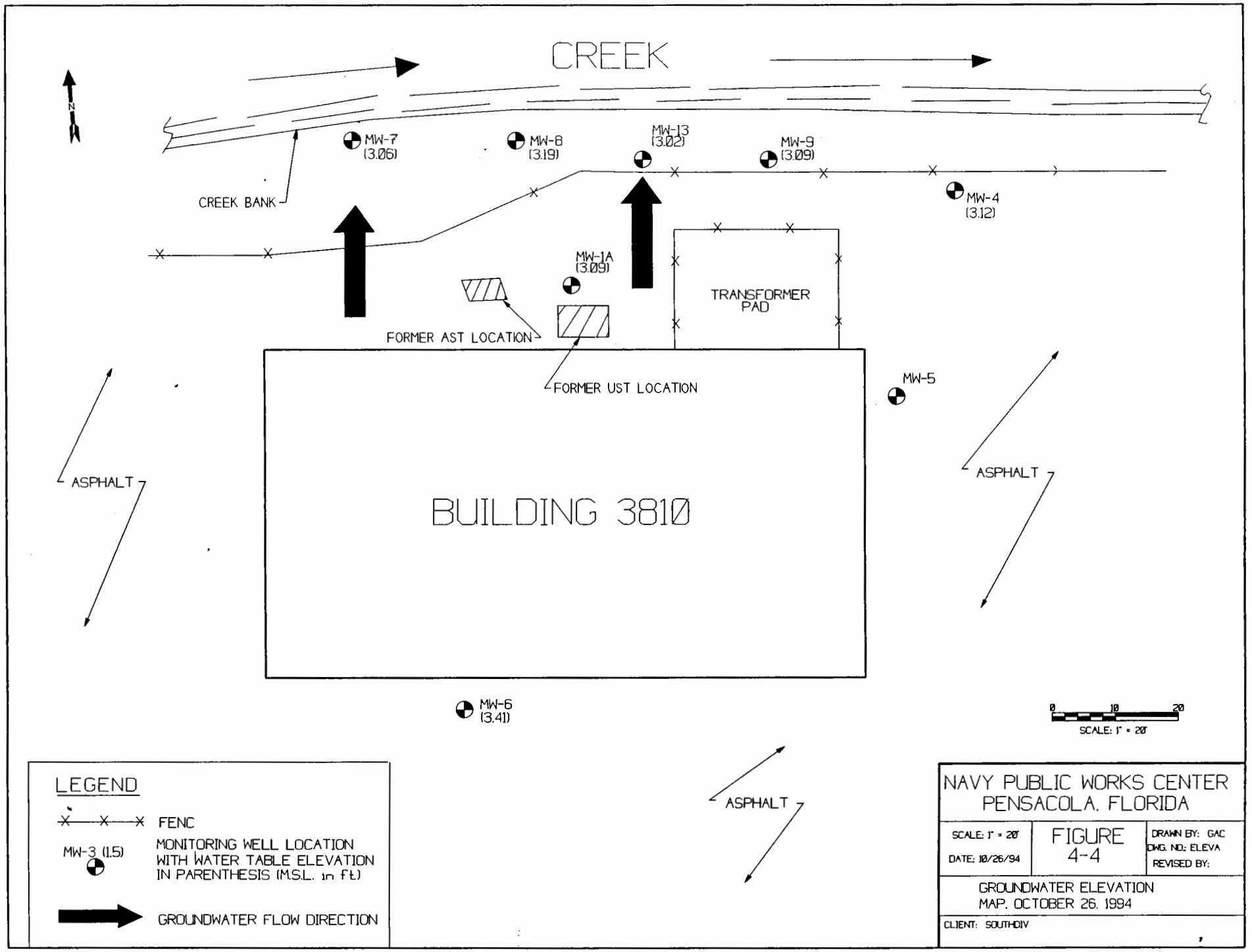
Well Number	October 4, 1994		
	TOC Elevation (ft)	DTW (ft)	Groundwater Elevation (ft)
MW-1A	7.88	4.79	3.09
MW-4	6.82	3.70	3.12
MW-6	8.63	5.22	3.41
MW-7	5.08	2.02	3.06
MW-8	5.79	2.60	3.19
MW-9	6.44	3.35	3.09
MW-13	6.43	3.41	3.02

Notes: TOC = Top of casing
DTW = Depth to water (ft)

TOC elevations for all monitoring wells, with the exception of MW-1A, were provided by Pam Wagner, ABB, Inc., Tallahassee, FL on October 24, 1994. PWC survey provided TOC elevation for MW-1A on October 25, 1994.

All elevations are in NAS Datum.


CREEK
N
MW-7
(3.32)
MW-8
(3.40)
MW-13
(4.28)
MW-9
(3.38)
MW-4
(3.40)
CREEK BANK
MW-1A
(3.38)
TRANSFORMER
PAD
FORMER AST LOCATION
FORMER UST LOCATION
MW-5
ASPHALT
ASPHALT
BUILDING 3810
MW-6
(3.77)
0
10
20
SCALE: 1" = 20'
ASPHALT
LEGEND
FENCE
MW-3 (1.5)
MONITORING WELL LOCATION
WITH WATER TABLE ELEVATION
IN PARENTHESIS (M.S.L. in Ft.)
GROUNDWATER FLOW DIRECTION
NAVY PUBLIC WORKS CENTER
PENSACOLA, FLORIDA
SCALE: 1" = 20'
DATE: 10/21/94
FIGURE
4-3
DRAWN BY: GAC
DWG. NO.: ELEV3810
REVISED BY:
GROUNDWATER ELEVATION
MAP, OCTOBER 4, 1994
CLIENT: SOUTHDIV


CREEK
N
MW-7
(3.06)
MW-8
(3.19)
MW-13
(3.02)
MW-9
(3.09)
MW-4
(3.12)
CREEK BANK
MW-1A
(3.09)
TRANSFORMER
PAD
FORMER AST LOCATION
FORMER UST LOCATION
MW-5
ASPHALT
ASPHALT
BUILDING 3810
MW-6
(3.41)
ASPHALT
0 10 20
SCALE: 1" = 20'
LEGEND
FENC
MW-3 (1.5)
MONITORING WELL LOCATION
WITH WATER TABLE ELEVATION
IN PARENTHESIS (M.S.L. in ft)
GROUNDWATER FLOW DIRECTION
NAVY PUBLIC WORKS CENTER
PENSACOLA, FLORIDA
SCALE: 1" = 20'
DATE: 10/26/94
FIGURE
4-4
DRAWN BY: GAC
DWG. NO.: ELEVA
REVISED BY:
GROUNDWATER ELEVATION
MAP, OCTOBER 26, 1994
CLIENT: SOUTHDIV

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

* 385 tons of petroleum contaminated soil were excavated and properly disposed of.

* Approximately 20,000 gallons of groundwater was extracted during the dewatering operation and disposed at PWC's Industrial Wastewater Treatment Plant.

* VOC concentrations of the soil were below the State standard of 10 ppm upon completion of the excavation.

* No volatile organic compounds, polynuclear aromatic hydrocarbons, Ethylene Dibromide or TRPHs were detected in the groundwater samples obtained from each monitoring well.

* Lead was only detected in the groundwater sample obtained from monitoring well MW-8 and the concentration was well below the State Standard.

* No free product was detected in any of the monitoring wells after the initial remedial action activities were completed.

* Groundwater flow direction is toward the north.

* The contaminated soil excavation and groundwater dewatering activities has remediated the site to State Standards as confirmed by the soil and groundwater analysis.

5.2 RECOMMENDATIONS

Soil and groundwater analysis performed at NADEP site 3810N after the completion of the initial remedial action activities confirm that the site has been remediated below State standards found in FAC 62-770. Therefore, we recommend a "no further action" be approved for this site.

6.0 REFERENCES

ABB Environmental Services, Inc., 1992, Contamination Assessment Report, Site 3810N, Naval Aviation Depot, Naval Air Station, Pensacola, Florida: Prepared for Southern Division, Naval Facilities Engineering Command, Charleston, South Carolina.

ABB Environmental Services, Inc., 1993, Contamination Assessment Report Addendum, Site 3810N, Naval Aviation Depot, Naval Air Station, Pensacola, Florida: Prepared for Southern Division, Naval Facilities Engineering Command, Charleston, South Carolina.

APPENDIX A

FDEP APPROVAL
OF
PWC ALTERNATE PROCEDURES REQUEST

Florida Department of
Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

January 19, 1994

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Luis Vazquez,
Code 1843
Southern Division
Naval Facilities Engineering Command
P. O. Box 190010
2155 Eagle Drive
North Charleston, SC 29419-9010

Dear Mr. Vazquez:

Department personnel have completed the technical review of the Request For Approval of Alternate Procedures, Petroleum Site 3810N, NAS Pensacola. Based upon staff review and comments, the enclosed Approval of Alternate Procedures Order was signed by Mr. John M. Ruddell, Director of the Division of Waste Management. All necessary obligations are detailed in the Order.

If I can be of any further assistance with this matter, please contact me at 904/488-0190.

Sincerely,

Eric S. Nuzie
Federal Facilities Coordinator

ESN/st

Enclosure

cc: Tom Conrardy To: Greg. Campbell
David Clowes
John Mitchell
Tom Moody
Ron Joyner
Allison Drew

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN RE: File No. AP-PC0055

Naval Air Station Depot)
Pensacola)
Request Pursuant to Florida)
Administrative Code Rule 17-770.890)

APPROVAL OF ALTERNATE PROCEDURES

This cause comes before me upon receipt of a request by the Department of the Navy for approval of alternate procedures and requirements for Petroleum Site 3810N located at the Naval Air Station in Pensacola, Florida pursuant to Florida Administrative Code (F.A.C.) Rule 17-770.890. A copy of the request is attached as Exhibit A.

FINDINGS OF FACT

1. The applicant requests that exceptions be granted for compliance with F.A.C. Rule 17-770.300(2), which limits the Initial Remedial Action (IRA) activities which may be conducted prior to the Department approval of a Remedial Action Plan (RAP) to recovery of free product without groundwater table depression and excavation of excessively contaminated soil only. Dewatering or groundwater table depression as an Initial Remedial Action prior to approval of a Remedial Action Plan is prohibited.

2. The Contamination Assessment for the site was completed and submitted to the Department for review in September 1992. Additional sampling on the site was

performed in May and July of 1993, and it is has been determined that the extent of soil and groundwater contamination has been adequately defined. Soil contamination and a small amount of free product is limited to the immediate vicinity of the underground storage tanks.

3. Based on the assessment results which show a limited area of soil and groundwater contamination and relatively low groundwater contaminate levels, the Department of the Navy proposes to excavate approximately 200 cubic yards of contaminated soil, including soil to a depth of 3 feet below the groundwater table. In order to perform the excavation below the groundwater table and to recover contaminated groundwater to reduce contaminant levels, a groundwater dewatering system will be installed in the area of the excavation. The recovered groundwater will be discharged to the Navy Public Works Center Industrial Wastewater Treatment Plant. Dewatering activities will not exceed three days.

4. The Department of the Navy asserts that the soil excavation in conjunction with the groundwater recovery will effectively reduce the contaminant levels in the groundwater and the site will reach the Department's cleanup objectives through a reasonable duration monitoring period.

Based on the information provided by the applicant, the Department finds that the applicant's request is reasonable and will provide environmental protection substantially

equivalent to that provided by compliance with the requirements established in Florida Administrative Code Rule 17-770.300.

CONCLUSIONS OF LAW

Florida Administrative Code Rule 17-770.890 authorizes the approval by the Secretary or her designee of alternate procedures and requirements concerning the regulation of petroleum contamination site cleanup criteria.

The Department concludes that the applicant has adequately demonstrated that the proposed alternate procedure provides a substantially equivalent degree of protection for the lands, surface waters, and groundwaters of the State as the established requirements and that the alternate procedure is at least as effective as the established requirements.

Upon consideration of the foregoing it is therefore ORDERED that the Department of the Navy's request for an alternate procedure and requirement is Granted.

Persons whose substantial interests are affected by the above proposed action have a right, pursuant to Section 120.57, Florida Statutes (F.S.), to petition for an administrative determination (hearing) on the proposed action. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 21 days of publication of this notice. A copy of the Petition must also be mailed at the

time of filing to the Department of the Navy. Failure to file a petition within the 21 days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, F.S.

The petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner; the Department's identification number and the county in which the subject matter or activity is located;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by the petitioner, if any;

(e) A statement of facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action;

(g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing

process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the subject agency proposed action have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 21 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

When the Order is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal, accompanied by the applicable filing fees, with the appropriate District Court

of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

DONE AND ORDERED this 13th day of January, 1994 in Tallahassee, Florida.

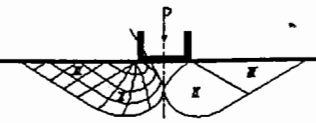
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

John M. Ruddell, Director
Division of Waste Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

APPENDIX B

LITHOLOGIC LOG AND WELL CONSTRUCTION DIAGRAM FOR MONITORING WELL MW-1A

FIGURE #1



Larry M. Jacobs & Associates, Inc.

Geotechnical Engineering / Material Testing / Drilling

328 EAST GADSDEN STREET • PENSACOLA, FLORIDA 32501 • 904/434-0848 • FAX: 904/433-7027

LOG OF BORING

PROJECT: NAS Pensacola, Bldg. 3810 Monitor Well

JOB NO.: 94-505

ELEVATION: N/A

BORING NO.: MW-1

TYPE BORING: ASTM-D1586

DATUM: Existing Grade

LOCATION: As per Client

DATE: 9-1-94

GR. WATER: 6' Below Datum At Time of Boring

DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N1	S.P.T. Nc	W.C. %	WELL DIAGRAM	% MINUS #200	SHEAR STRENGTH	Visual U/S
0		Asphalt (0 to 8 inches)					8" Flush Mounted Manhole Cover; Neat Cement Grout (1 Bag); 2" Casing; Fine Sand Pack (0.25 Bag)			
		Red silty sand (Fill)								SM
10		Brown silty sand with organic stain					Screen (0.010"); Sand Pack (6 bags)			SM
15										

REMARKS: All soil classifications visual unless test results are shown.

APPENDIX C

LABORATORY ANALYSIS

Navy Public Works Center
Environmental Laboratory

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Laboratory Report
Volatiles by Method 8260

Requester: NPWC Environmental
Address: Bldg. 3691
NAS Pensacola, Fl 32508
Phone #: 452-3180
Contact: Greg Campbell

Lab ID Number: 9410342 A
Sample Date: 4 Oct 94
Received Date: 4 Oct 94
Sample Site: NAS Pensacola
Job Order #: 130 6210

Sample ID#	Lab	1- 6690			2- 6691			3- 6692			4- 6693		
Sample Name	Requester	Bldg. 3810 MW-7			Bldg. 3810 MW-8			Bldg. 3810 MW-13			Bldg. 3810 MW-9		
Collector Name		J. Owensby/ATI			J. Owensby/ATI			J. Owensby/ATI			J. Owensby/ATI		
Date/Time	Comp start												
Collected	Comp stop												
(Military)	Grab	4 Oct 94 @ 1110			4 Oct 94 @ 1155			4 Oct 94 @ 1445			4 Oct 94 @ 1235		
Sample Type	Comp/Grab	Grab			Grab			Grab			Grab		
Analyst		Joe Moore			Joe Moore			Joe Moore			Joe Moore		
Date of Analysis		7 Oct 94			7 Oct 94			7 Oct 94			7 Oct 94		
Sample Matrix		Groundwater			Groundwater			Groundwater			Groundwater		
Dilution		Dilution X 1			Dilution X 1			Dilution X 1			Dilution X 1		
PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 6690	units	Limit	2- 6691	units	Limit	3- 6692	units	Limit	4- 6693	units	Limit
Benzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Bromobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Bromochloromethane	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Bromodichloromethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Bromoform	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Bromomethane	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
n-Butylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
sec-Butylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
tert-Butylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Carbon Tetrachloride	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Chlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Chloroethane	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Chloroform	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Chloromethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
2-Chlorotoluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
4-Chlorotoluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Dibromochloromethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2-Dibromo-3-chloropropane	EPA 8260	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
1,2-Dibromoethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Dibromomethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2-Dichlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,3-Dichlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,4-Dichlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Dichlorodifluoromethane	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
1,1-Dichloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2-Dichloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,1-Dichloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
cis-1,2-Dichloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
trans-1,2-Dichloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2-Dichloropropane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,3-Dichloropropane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
2,2-Dichloropropane	EPA 8260	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
1,1-Dichloropropene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Ethylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Hexachlorobutadiene	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Isopropylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
p-Isopropyltoluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Methylene chloride	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1

Navy Public Works Center
Environmental Laboratory

Laboratory Report
Volatiles by Method 8260

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Requester: NPWC Environmental
Address: Bldg. 3691
NAS Pensacola, Fl 32508
Phone #: 452-3180
Contact: Greg Campbell

Lab ID Number: 9410342 A
Sample Date: 4 Oct 94
Received Date: 4 Oct 94
Sample Site: NAS Pensacola
Job Order #: 130 6210

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 6690	units	Limit	2- 6691	units	Limit	3- 6692	units	Limit	4- 6693	units	Limit
Naphthalene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
n-Propylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Styrene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,1,1,2-Tetrachloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,1,2,2-Tetrachloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Tetrachloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Toluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2,3-Trichlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2,4-Trichlorobenzene	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
1,1,1-Trichloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,1,2-Trichloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Trichloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Trichlorofluoromethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2,3-Trichloropropane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2,4-Trimethylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,3,5-Trimethylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Vinyl Chloride	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
o-Xylene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
m,p-Xylene	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Methyl tert-Butyl Ether (MTBE)	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1

Surrogate Recoveries Compound	Acceptance Limits				
1,2-Dichloroethane-d4	76-114	93	92	91	92
Toluene-d8	88-110	103	103	103	103
Bromofluorobenzene	86-115	99	98	99	98

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: _____ Date/Time: 25-Oct-94 @ 10:14
Jerry Dees, Laboratory Director

PWC 5090/14

 End of Report

Navy Public Works Center
Environmental Laboratory

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Laboratory Report
Volatiles by Method 8260

Requester: NPWC Environmental
Address: Bldg. 3691
NAS Pensacola, Fl 32508
Phone #: 452-3180
Contact: Greg Campbell

Lab ID Number: 9410342 B
Sample Date: 4 Oct 94
Received Date: 4 Oct 94
Sample Site: NAS Pensacola
Job Order #: 130 6210

Sample ID#	Lab	1- 6694			2- 6695			3- 6696			4- 6697		
Sample Name	Requester	Bldg. 3810 MW-4			Bldg. 3810 MW-6			Equipment Blank			Bldg. 3810 MW-1A		
Collector Name		J. Owensby/ATI			J. Owensby/ATI			J. Owensby/ATI			J. Owensby/ATI		
Date/Time Collected (Military)	Comp start												
	Comp stop												
	Grab	4 Oct 94 @ 1320			4 Oct 94 @ 1400			4 Oct 94 @ 1355			4 Oct 94 @ 1640		
Sample Type	Comp/Grab	Grab			Grab			Grab			Grab		
Analyst		Joe Moore			Joe Moore			Joe Moore			Joe Moore		
Date of Analysis		7 Oct 94			7 Oct 94			7 Oct 94			7 Oct 94		
Sample Matrix		Groundwater			Groundwater			Groundwater			Groundwater		
Dilution		Dilution X 1			Dilution X 1			Dilution X 1			Dilution X 1		
PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 6694	units	Limit	2- 6695	units	Limit	3- 6696	units	Limit	4- 6697	units	Limit
Benzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Bromobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Bromochloromethane	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Bromodichloromethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Bromoform	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Bromomethane	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
n-Butylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
sec-Butylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
tert-Butylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Carbon Tetrachloride	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Chlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Chloroethane	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Chloroform	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Chloromethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
2-Chlorotoluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
4-Chlorotoluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Dibromochloromethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2-Dibromo-3-chloropropane	EPA 8260	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
1,2-Dibromoethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Dibromomethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2-Dichlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,3-Dichlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,4-Dichlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Dichlorodifluoromethane	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
1,1-Dichloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2-Dichloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,1-Dichloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
cis-1,2-Dichloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
trans-1,2-Dichloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2-Dichloropropane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,3-Dichloropropane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
2,2-Dichloropropane	EPA 8260	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4	BDL	ug/l	4
1,1-Dichloropropene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Ethylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Hexachlorobutadiene	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Isopropylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
p-Isopropyltoluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Methylene chloride	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1

Navy Public Works Center
Environmental Laboratory

Laboratory Report
Volatiles by Method 8260

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Requester: NPWC Environmental
Address: Bldg. 3691
NAS Pensacola, Fl 32508
Phone #: 452-3180
Contact: Greg Campbell

Lab ID Number: 9410342 B
Sample Date: 4 Oct 94
Received Date: 4 Oct 94
Sample Site: NAS Pensacola
Job Order #: 130 6210

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 6694	units	Limit	2- 6695	units	Limit	3- 6696	units	Limit	4- 6697	units	Limit
Naphthalene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
n-Propylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Styrene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,1,1,2-Tetrachloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,1,2,2-Tetrachloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Tetrachloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Toluene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2,3-Trichlorobenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2,4-Trichlorobenzene	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
1,1,1-Trichloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,1,2-Trichloroethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Trichloroethene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Trichlorofluoromethane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2,3-Trichloropropane	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,2,4-Trimethylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
1,3,5-Trimethylbenzene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
Vinyl Chloride	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
o-Xylene	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1
m,p-Xylene	EPA 8260	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2	BDL	ug/l	2
Methyl tert-Butyl Ether (MTBE)	EPA 8260	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1	BDL	ug/l	1

Surrogate Recoveries Compound	Acceptance Limits				
1,2-Dichloroethane-d4	76-114	91	91	94	92
Toluene-d8	88-110	103	102	105	104
Bromofluorobenzene	86-115	99	97	99	98

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: _____ Date/Time: 25-Oct-94 @ 10:27
Jerry Dees, Laboratory Director

PWC 5090/14

 End of Report

Navy Public Works Center
Environmental Laboratory

Laboratory Report
PAH's by Method 8270A

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Requester: NPWC Environmental
Address: Bldg. 3691
NAS Pensacola, Fl 32508
Phone #: 452-3180
Contact: Greg Campbell

Lab ID Number: 9410342 C
Sample Date: 4 Oct 94
Received Date: 4 Oct 94
Sample Site: NAS Pensacola
Job Order #: 130 6210

Sample ID#	Lab	1- 6690	2- 6691	3- 6692	4- 6693
Sample Name	Requester	Bldg. 3810 MW-7	Bldg. 3810 MW-8	Bldg. 3810 MW-13	Bldg. 3810 MW-9
Collector Name		J. Owensby/ATI	J. Owensby/ATI	J. Owensby/ATI	J. Owensby/ATI
Date/Time Collected (Military)	Comp start				
	Comp stop				
	Grab	4 Oct 94 @ 1110	4 Oct 94 @ 1155	4 Oct 94 @ 1445	4 Oct 94 @ 1235
Sample Type	Comp/Grab	Grab	Grab	Grab	Grab
Analyst		J. W. Moore	J. W. Moore	J. W. Moore	J. W. Moore
Date of Analysis		8 Oct 94	8 Oct 94	8 Oct 94	8 Oct 94
Sample Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Dilution		Dilution X 1	Dilution X 1	Dilution X 1	Dilution X 1

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Polynuclear Aromatics (PAH's)	METHOD #	1- 6690	units	Limit	2- 6691	units	Limit	3- 6692	units	Limit	4- 6693	units	Limit
Acenaphthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Acenaphthylene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Anthracene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(a)anthracene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(a)pyrene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(b)fluoranthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(g,h,i)perylene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(k)fluoranthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Chrysene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Dibenzo(a,h)anthracene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Fluoranthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Fluorene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Indeno(1,2,3-cd)pyrene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Naphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Phenanthrene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Pyrene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
1-Methylnaphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
2-Methylnaphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5

SURROGATE RECOVERIES Compound	Acceptance Limits				
Nitrobenzene-d5	35-114	73	63	56	66
2-Fluorobiphenyl	43-116	56	50	50	52
Terphenyl-d14	33-141	61	56	61	50

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: Jerry Dees, Laboratory Director **Date/Time:** 18-Oct-94 @ 09:09
Report Generated

PWC 5090/14

End of Report

Navy Public Works Center
Environmental Laboratory

Laboratory Report
PAH's by Method 8270A

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Requester: NPWC Environmental
Address: Bldg. 3691
NAS Pensacola, Fl 32508
Phone #: 452-3180
Contact: Greg Campbell

Lab ID Number: 9410342 D
Sample Date: 4 Oct 94
Received Date: 4 Oct 94
Sample Site: NAS Pensacola
Job Order #: 130 6210

Sample ID#	Lab	1- 6694	2- 6695	3- 6696	4- 6697
Sample Name	Requester	Bldg. 3810 MW-4	Bldg. 3810 MW-6	Equipment Blank	Bldg. 3810 MW-1A
Collector Name		J. Owensby/ATI	J. Owensby/ATI	J. Owensby/ATI	J. Owensby/ATI
Date/Time Collected (Military)	Comp start				
	Comp stop				
	Grab	4 Oct 94 @ 1320	4 Oct 94 @ 1400	4 Oct 94 @ 1355	4 Oct 94 @ 1640
Sample Type	Comp/Grab	Grab	Grab	Grab	Grab
Analyst		J. W. Moore	J. W. Moore	J. W. Moore	J. W. Moore
Date of Analysis		9 Oct 94	9 Oct 94	9 Oct 94	10 Oct 94
Sample Matrix		Groundwater	Groundwater	Blank	Groundwater
Dilution		Dilution X 1	Dilution X 1	Dilution X 1	Dilution X 1

PARAMETER		ID# 1- 6694	units	Det. Limit	ID# 2- 6695	units	Det. Limit	ID# 3- 6696	units	Det. Limit	ID# 4- 6697	units	Det. Limit
Polynuclear Aromatics (PAH's)	METHOD #												
Acenaphthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Acenaphthylene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Anthracene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(a)anthracene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(a)pyrene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(b)fluoranthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(g,h,i)perylene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Benzo(k)fluoranthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Chrysene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Dibenzo(a,h)anthracene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Fluoranthene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Fluorene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Indeno(1,2,3-cd)pyrene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Naphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Phenanthrene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
Pyrene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
1-Methylnaphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5
2-Methylnaphthalene	EPA 8270A	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5	BDL	ug/l	5

SURROGATE RECOVERIES Compound	Acceptance Limits				
Nitrobenzene-d5	35-114	63	68	68	64
2-Fluorobiphenyl	43-116	49	52	54	46
Terphenyl-d14	33-141	58	53	62	56

Comments: ug/l=micrograms per liter. ug/kg=micrograms per kilogram. BDL=Below Detection Limit.

Approved by: Jerry Dees, Laboratory Director

Date/Time: 18-Oct-94 @ 09:12
Report Generated

End of Report

PWC 5090/14

Navy Public Works Center
Environmental Laboratory

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Laboratory Report

Lead in Water by Method 239.2

Requester:	NPWC Environmental	**Lab ID Number:**	9410342 E
Address:	Bldg. 3691	**Sample Date:**	4 Oct 94
	NAS Pensacola, FL 32508	**Received Date:**	4 Oct 94
Phone #:	452-3180	**Sample Site:**	NAS Pensacola
Contact:	Greg Campbell	**Job Order #:**	130 6210

Sample ID#	Lab	1- 6690	2- 6691	3- 6692	4- 6693	Analyst(s):
Sample Name	Requester	Bldg. 3810 MW-7	Bldg. 3810 MW-8	Bldg. 3810 MW-13	Bldg. 3810 MW-9	Brian Nelson
Collector Name		J. Owensby/ATI	J. Owensby/ATI	J. Owensby/ATI	J. Owensby/ATI	
Date/Time Collected (Military)	Comp start					Date(s) of analysis:
	Comp stop					
	Grab	4 Oct 94 @ 1110	4 Oct 94 @ 1155	4 Oct 94 @ 1445	4 Oct 94 @ 1235	6 Oct 94
Sample Type	Comp/Grab	Grab	Grab	Grab	Grab	
Sample Matrix		Groundwater	Groundwater	Groundwater	Groundwater	

PARAMETER		ID#			Det.	ID#			Det.	ID#			Det.	ID#			Det.	
Metals:	METHOD #	1- 6690		units	Limit	2- 6691		units	Limit	3- 6692		units	Limit	4- 6693		units	Limit	Preservative(s)
Lead(Pb)	EPA 239.2	X	BDL	mg/l	0.003	X	0.004	mg/l	0.003	X	BDL	mg/l	0.003	X	BDL	mg/l	0.003	HNO_3 to pH<2

Sample ID#	Lab	5- 6694	6- 6695	7- 6696	8- 6697	Analyst(s):
Sample Name	Requester	Bldg. 3810 MW-4	Bldg. 3810 MW-6	Equipment Blank	Bldg. 3810 MW-1A	Brian Nelson
Collector Name		J. Owensby/ATI	J. Owensby/ATI	J. Owensby/ATI	J. Owensby/ATI	
Date/Time Collected (Military)	Comp start					Date(s) of analysis:
	Comp stop					
	Grab	4 Oct 94 @ 1320	4 Oct 94 @ 1400	4 Oct 94 @ 1355	4 Oct 94 @ 1640	6 Oct 94
Sample Type	Comp/Grab	Grab	Grab	Grab	Grab	
Sample Matrix		Groundwater	Groundwater	Blank	Groundwater	

PARAMETER		ID#			Det.	ID#			Det.	ID#			Det.	ID#			Det.	
Metals:	METHOD #	5- 6694		units	Limit	6- 6695		units	Limit	7- 6696		units	Limit	8- 6697		units	Limit	Preservative(s)
Lead(Pb)	EPA 239.2	X	BDL	mg/l	0.003	X	BDL	mg/l	0.003	X	BDL	mg/l	0.003	X	BDL	mg/l	0.003	HNO_3 to pH<2

Comments: mg/l=milligrams per liter. BDL = Below Detection Limit

Approved by: Jerry Dees, Laboratory Director

Date: 18 Oct 94

PWC 5090/14

End of Report

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

PWC Environmental Laboratory
Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500

Ph#-(904)452-3642/4758
Autovon-922-3642

Requester: NPWC Environmental
Address: NAS, Pensacola
Phone #: 452-3180
Contact: Greg Campbell
Job Order #: 1306 210

Report Required? Yes No DER? Yes No
Lab ID Number:
Sample Date: 10-4-1994
Received Date: 10-4-1994
Sample Site: NAS Pensacola
Lab Due Date:

Sample ID #	Lab	#1- 6640	#2- 6691	#3- 6692	#4- 6693
Sample Name or Location	----------	MW-7	MW-8	MW-13	MW-9
Sampled by	----------	J. Owensby	J. Owensby	J. Owensby	J. Owensby
Composite Date/Time Collected	Begin				
	Frequency	10-4-94	10-4-94	10-4-94	10-4-94
	End				
Grab Time	----------	1110	1155	1445	1235
Sample Matrix	----------				

Notes: Monitor wells around Whittaker - (BIDS 3810)

SINGLE PARAMETER by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
Gas Chromatography	EPA 8000									4	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo. Vol. Org./GC	EPA 8010									4	40 ml x 2/4 oz.	HCl to pH<2/4° C
EDB & DBCP/GC	EPA 8011									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Non-Halo. Vol. Org./GC	EPA 8015(MOD)									4	1L (A) x 2/4 oz.	4° C
Arom. Vol. Org./GC	EPA 8020									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo./Arom. Vol. Org./GC	EPA 8021									6	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo./Arom. Vol. Org./GC	EPA 8010/8020									6	40 ml x 2/4 oz.	HCl to pH<2/4° C
Phenols/GC	EPA 8040									5	1Lx2/4 oz.	4° C
Phthalate Esters/GC	EPA 8060									5	1Lx2/4 oz.	4° C
Organochlor. Pest./PCB/GC	EPA 8080									5	1Lx2/4 oz.	4° C
Org. Pest/PCB/GC-Cap.	EPA 8081									8	1Lx2/4 oz.	4° C
Chlor. Herb./GC	EPA 8150									5	40 ml x 2/4 oz.	4° C
VOC/GCMS-Cap.	EPA 8260		X		X		X		X	8	40 ml x 2/4 oz.	HCl to pH<2/4° C
Semivol. Org./GCMS-Cap.	EPA 8270									16	1Lx3/4 oz.	4° C
Semivol. Org./GCMS-Cap.	EPA 8270A									16	1Lx3/4 oz.	4° C

GROUP PARAMETERS by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
HW Characterization (complete)	EPA SW-846									50	See below	See below
Ignitability (Flashpoint)	EPA 1010									1	250ml/4 oz.	4° C
Reactivity (Cyanide & Sulfide)	SW 846									3	1L/4 oz.	4° C
Corrosivity (pH)	EPA 9040 or 9045									1	250ml/4 oz.	4° C
Toxicity (TCLP) complete	EPA SW-846									47	See below	See below
Non Volatile TCLP Extraction	EPA 1311									4	40 mlx3/4 oz.	4° C
ZHE TCLP Extraction	EPA 1311									5	1Lx4/32 oz.	HCl to pH<2/4° C
TCLP Acid Extractables	EPA 8270									8	1L/4 oz.	4° C
TCLP B/N Extractables	EPA 8270									8	1L/4 oz.	4° C
TCLP Pesticides	EPA 8080									5	1L/4 oz.	4° C
TCLP Herbicides	EPA 8150	--								5	1L/4 oz.	4° C
TCLP Volatiles	EPA 8260									8	40 mlx3/4 oz.	HCl to pH<2/4° C
TCLP Metals (8)	EPA SW-846									6	500 ml/4 oz.	HNO_3 to pH<2
Priority Pollutants (complete)	EPA SW-846									39	See below	See below
PP Acid Extractables	EPA 8270									8	1L/4 oz.	4° C
PP B/N Extractables	EPA 8270		X		X		X		X	8	1L/4 oz.	4° C
PP Pesticides	EPA 8080									5	1L/4 oz.	4° C
PP Volatiles	EPA 8260									8	40 mlx3/4 oz.	HCl to pH<2/4° C
PP Metals (13)	EPA SW-846									8	500 ml/4 oz.	HNO_3 to pH<2
PP Cyanide & Phenol	EPA 600									2	1Lx2/4 oz.	NaOH/H_2SO_4/None
F001 - F005 Solvents	EPA SW-846									24	1Lx2&40mlx3/16 oz.	HNO_3 to pH<2
RCRA Metals (8)	EPA SW-846									6	500 ml/4 oz.	HNO_3 to pH<2
PCBs in Oil	EPA 8080									2	40 ml	4° C
Other:												
Pb only			X		X		X		X			

Comments: BIN For PAH's (Base only) Kerosene Analytical Group
Wells Sampled by ATT

Relinquished by: Johnny Owensby
Date/Time: 10/4/94 1755

Received by: JW Moore
Date/Time: 10-4-94 1755

PWC 9510/8

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

PWC Environmental Laboratory
Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500

Ph#-(904)452-3642/4758
Autovon-922-3642

Requester: NPWC Environmental
Address: NAS, Pensacola
Phone #: 452-3180
Contact: Greg Campbell
Job Order #: 1306210

Report Required? Yes No DER? Yes No
Lab ID Number:
Sample Date: 10-4-94
Received Date: 10-4-94
Sample Site: NAS Pensacola
Lab Due Date:

Sample ID #	Lab	#1- 6694	#2- 6695	#3- 6696	#4- 6697	Notes:
Sample Name or Location	----------	MW-4	MW-6	Equipment Blank	MW-1A	Monitor wells around whirly tower (BLDG 3810)
Sampled by	----------	J. Owensby	J. Owensby	J. Owensby	J. Owensby	
Composite	Begin					
Date/Time	Frequency	10-4-94	10-4-94	10-4-94	10-4-94	
Collected	End					
Grab Time	----------	1320	1400	1355	1640	
Sample Matrix	----------	Groundwater	Groundwater			

SINGLE PARAMETER by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
Gas Chromatography	EPA 8000									4	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo. Vol. Org./GC	EPA 8010									4	40 ml x 2/4 oz.	HCl to pH<2/4° C
EDB & DBCP/GC	EPA 8011									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Non-Halo. Vol. Org./GC	EPA 8015(MOD)									4	1L (A) x 2/4 oz.	4° C
Arom. Vol. Org./GC	EPA 8020									3	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo./Arom. Vol. Org./GC	EPA 8021									8	40 ml x 2/4 oz.	HCl to pH<2/4° C
Halo./Arom. Vol. Org./GC	EPA 8010/8020									6	40 ml x 2/4 oz.	HCl to pH<2/4° C
Phenols/GC	EPA 8040									5	1Lx2/4 oz.	4° C
Phthalate Esters/GC	EPA 8060									5	1Lx2/4 oz.	4° C
Organochlor. Pest./PCB/GC	EPA 8080									5	1Lx2/4 oz.	4° C
Org. Pest/PCB/GC-Cap.	EPA 8081									6	1Lx2/4 oz.	4° C
Chlor. Herb./GC	EPA 8150									5	40 ml x 2/4 oz.	4° C
VOC/GCMS-Cap.	EPA 8260		X		X		X		X	8	40 ml x 2/4 oz.	HCl to pH<2/4° C
Semivol. Org./GCMS-Cap.	EPA 8270									16	1Lx3/4 oz.	4° C
Semivol. Org./GCMS-Cap.	EPA 8270A									16	1Lx3/4 oz.	4° C

GROUP PARAMETERS by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	Billing Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
HW Characterization (complete)	EPA SW-846									50	See below	See below
Ignitability (Flashpoint)	EPA 1010									1	250ml/4 oz.	4° C
Reactivity (Cyanide & Sulfide)	SW 846									3	1L/4 oz.	4° C
Corrosivity (pH)	EPA 9040 or 9045									1	250ml/4 oz.	4° C
Toxicity (TCLP) complete	EPA SW-846									47	See below	See below
Non Volatile TCLP Extraction	EPA 1311									4	40 mlx3/4 oz.	4° C
ZHE TCLP Extraction	EPA 1311									5	1Lx4/32 oz.	HCl to pH<2/4° C
TCLP Acid Extractables	EPA 8270									8	1L/4 oz.	4° C
TCLP B/N Extractables	EPA 8270									8	1L/4 oz.	4° C
TCLP Pesticides	EPA 8080									5	1L/4 oz.	4° C
TCLP Herbicides	EPA 8150									5	1L/4 oz.	4° C
TCLP Volatiles	EPA 8260									8	40 mlx3/4 oz.	HCl to pH<2/4° C
TCLP Metals (8)	EPA SW-846									6	500 ml/4 oz.	HNO_3 to pH<2
Priority Pollutants (complete)	EPA SW-846									39	See below	See below
PP Acid Extractables	EPA 8270									8	1L/4 oz.	4° C
PP B/N Extractables	EPA 8270		X		X		X		X	8	1L/4 oz.	4° C
PP Pesticides	EPA 8080									5	1L/4 oz.	4° C
PP Volatiles	EPA 8260									8	40 mlx3/4 oz.	HCl to pH<2/4° C
PP Metals (13)	EPA SW-846									8	500 ml/4 oz.	HNO_3 to pH<2
PP Cyanide & Phenol	EPA 600									2	1Lx2/4 oz.	NaOH/H_2SO_4/None
F001 - F005 Solvents	EPA SW-846									24	1Lx2&40mlx3/16 oz.	HNO_3 to pH<2
RCRA Metals (8)	EPA SW-846									6	500 ml/4 oz.	HNO_3 to pH<2
PCBs in Oil	EPA 8080									2	40 ml	4° C
Other: Pb only			X		X		X		X			

Comments: Wells Sampled by ATL : B/N for PAH's (Base on Kerosene Analytical group

Relinquished by: [signature]
Date/Time: 10/4/94 1755

Received by: JW Moore
Date/Time: 10-4-94 1755

↑ (Johnny Owensby)

PWC 9510/8

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	TOTAL PETROLEUM HYDROCARBONS (418.1)
Analysis Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Matrix:	LIQUID
QC Level:	I

Lab Id:	001		Sample Date/Time:	04-OCT-94 1110
Client Sample Id:	MW-7		Received Date:	05-OCT-94
Batch: TPW285			Extraction Date:	06-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	12-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	1	
ANALYST	INITIALS	MV		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	TOTAL PETROLEUM HYDROCARBONS (418.1)
Analysis Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Matrix:	LIQUID
QC Level:	I

Lab Id:	002		Sample Date/Time:	04-OCT-94 1155
Client Sample Id:	MW-8		Received Date:	05-OCT-94
Batch: TPW285			Extraction Date:	06-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	12-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	1	
ANALYST	INITIALS	MV		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	TOTAL PETROLEUM HYDROCARBONS (418.1)
Analysis Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Matrix:	LIQUID
QC Level:	I

Lab Id:	003		Sample Date/Time:	04-OCT-94 1235
Client Sample Id:	MW-9		Received Date:	05-OCT-94
Batch: TPW285			Extraction Date:	06-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	12-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	1	
ANALYST	INITIALS	MV		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	TOTAL PETROLEUM HYDROCARBONS (418.1)
Analysis Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Matrix:	LIQUID
QC Level:	I

Lab Id:	004		Sample Date/Time:	04-OCT-94 1320
Client Sample Id:	MW-4		Received Date:	05-OCT-94
Batch: TPW285			Extraction Date:	06-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	12-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	1	
ANALYST	INITIALS	MV		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	TOTAL PETROLEUM HYDROCARBONS (418.1)
Analysis Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Matrix:	LIQUID
QC Level:	I

Lab Id:	005		Sample Date/Time:	04-OCT-94 1400
Client Sample Id:	MW-6		Received Date:	05-OCT-94
Batch: TPW285			Extraction Date:	06-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	12-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	1	
ANALYST	INITIALS	MV		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	TOTAL PETROLEUM HYDROCARBONS (418.1)
Analysis Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Matrix:	LIQUID
QC Level:	I

Lab Id:	006		Sample Date/Time:	04-OCT-94 1640
Client Sample Id:	MW-1A		Received Date:	05-OCT-94
Batch: TPW285			Extraction Date:	06-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	12-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	1	
ANALYST	INITIALS	MV		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	TOTAL PETROLEUM HYDROCARBONS (418.1)
Analysis Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Matrix:	LIQUID
QC Level:	I

Lab Id:	007	Sample Date/Time:	04-OCT-94 1445
Client Sample Id:	MW-13	Received Date:	05-OCT-94
Batch: TPW285		Extraction Date:	06-OCT-94
Blank: A	Dry Weight %: N/A	Analysis Date:	12-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	1	
ANALYST	INITIALS	MV		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	TOTAL PETROLEUM HYDROCARBONS (418.1)
Analysis Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Extraction Method:	418.1 / EPA 600 / 04-79-020, Rev. March 1983
Matrix:	LIQUID
QC Level:	I

Lab Id:	008		Sample Date/Time:	04-OCT-94 1445
Client Sample Id:	MW-13DUP		Received Date:	05-OCT-94
Batch: TPW285			Extraction Date:	06-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	12-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	1	
ANALYST	INITIALS	MV		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	EDB BY METHOD 504
Analysis Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Extraction Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Matrix:	LIQUID
QC Level:	I

Lab Id:	001		Sample Date/Time:	04-OCT-94 1110
Client Sample Id:	MW-7		Received Date:	05-OCT-94
Batch: EDW098			Extraction Date:	10-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	11-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ETHYLENE DIBROMIDE	UG/L	ND	0.02	
BROMOFLUOROBENZENE (ECD)	%REC/SURR	103	90-116	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	EDB BY METHOD 504
Analysis Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Extraction Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Matrix:	LIQUID
QC Level:	I

Lab Id:	002		Sample Date/Time:	04-OCT-94 1155
Client Sample Id:	MW-8		Received Date:	05-OCT-94
Batch: EDW098			Extraction Date:	10-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	11-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ETHYLENE DIBROMIDE	UG/L	ND	0.02	
BROMOFLUOROBENZENE (ECD)	%REC/SURR	104	90-116	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	EDB BY METHOD 504
Analysis Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Extraction Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Matrix:	LIQUID
QC Level:	I

Lab Id:	003		Sample Date/Time:	04-OCT-94 1235
Client Sample Id:	MW-9		Received Date:	05-OCT-94
Batch: EDW098			Extraction Date:	10-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	11-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ETHYLENE DIBROMIDE	UG/L	ND	0.02	
BROMOFLUOROBENZENE (ECD)	%REC/SURR	103	90-116	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	EDB BY METHOD 504
Analysis Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Extraction Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Matrix:	LIQUID
QC Level:	I

Lab Id:	004		Sample Date/Time:	04-OCT-94 1320
Client Sample Id:	MW-4		Received Date:	05-OCT-94
Batch: EDW098			Extraction Date:	10-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	11-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ETHYLENE DIBROMIDE	UG/L	ND	0.02	
BROMOFLUOROBENZENE (ECD)	%REC/SURR	101	90-116	
ANALYST	INITIALS	DGH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	EDB BY METHOD 504
Analysis Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Extraction Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Matrix:	LIQUID
QC Level:	I

Lab Id:	006		Sample Date/Time:	04-OCT-94 1640
Client Sample Id:	MW-1A		Received Date:	05-OCT-94
Batch: EDW098			Extraction Date:	10-OCT-94
Blank: A	Dry Weight %:	N/A	Analysis Date:	11-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ETHYLENE DIBROMIDE	UG/L	ND	0.02	
BROMOFLUOROBENZENE (ECD)	%REC/SURR	102	90-116	
ANALYST	INITIALS	DGH		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession:	410081
Client:	NAS, CO, PWC
Project Number:	STUB 4262-4568
Project Name:	BLDG 3810
Project Location:	NAS PENSACOLA, FL
Test:	EDB BY METHOD 504
Analysis Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Extraction Method:	504 / EPA / 600 / 04-88 / 039, Dec. 1988
Matrix:	LIQUID
QC Level:	I

Lab Id:	008			Sample Date/Time:	04-OCT-94 1445
Client Sample Id:	MW-13DUP			Received Date:	05-OCT-94
Batch: EDW098				Extraction Date:	10-OCT-94
Blank: A	Dry Weight %:	N/A		Analysis Date:	11-OCT-94

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ETHYLENE DIBROMIDE	UG/L	ND	0.02	
BROMOFLUOROBENZENE (ECD)	%REC/SURR	103	90-116	
ANALYST	INITIALS	DGH		

Comments: