N65928.AR.002814
NTC ORLANDO
5090.3a

SITE ASSESSMENT FOR BUILDING 7171 MCCOY ANNEX NTC ORLANDO FL
1/1/1998
ABB ENVIRONMENTAL

270

SITE ASSESSMENT REPORT

BUILDING 7107
McCOY ANNEX

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

UNIT IDENTIFICATION CODE: N65928
CONTRACT NO.: N62467-89-D-0317/137

JANUARY 1998

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORTH CHARLESTON, SOUTH CAROLINA
29419-9010

SITE ASSESSMENT REPORT

BUILDING 7107
MCCOY ANNEX

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

Unit Identification Code: N65928

Contract No. N62467-89-D-0317/137

Prepared by:

ABB Environmental Services, Inc.
2590 Executive Center Circle, East
Tallahassee, Florida 32301

Prepared for:

Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29418

Nick Ugolini, Code 1843, Engineer-in-Charge

January 1998

CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/137 are complete and accurate and comply with all requirements of this contract.

DATE: January 28, 1998

NAME AND TITLE OF CERTIFYING OFFICIAL: John Kaiser
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Manuel Alonso, P.G.
Project Technical Lead

(DFAR 252.227-7036)

FOREWORD

To meet its mission objectives, the U.S. Navy performs a variety of operations, some requiring the use, handling, storage, or disposal of hazardous materials. Through accidental spills and leaks and conventional methods of past disposal, hazardous materials may have entered the environment in ways unacceptable by today's standards. With growing knowledge of the long-term effects of hazardous materials on the environment, the Department of Defense initiated various programs to investigate and remediate conditions related to suspected past releases of hazardous materials at their facilities.

One of these programs is the Comprehensive Long-Term Environmental Action, Navy (CLEAN) Underground Storage Tank (UST) program. This program complies with Subtitle I of the Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendments of 1984. In addition, the UST program complies with all State and local storage tank regulations as they pertain to the locations of each naval facility.

The UST program includes the following activities:

- registration and management of Navy and Marine Corps storage tank systems,
- contamination assessment planning,
- site field investigations,
- preparation of site assessment reports,
- remedial (corrective) action planning,
- implementation of active remediation, and
- tank and pipeline closures.

The Southern Division, Naval Facilities Engineering Command manages the UST program, and the Florida Department of Environmental Protection oversees the Navy UST program at the Naval Training Center (NTC), Orlando, Florida.

In addition to the UST program, NTC, Orlando in conjunction with the Department of the Navy has instituted several programs to address the requirements of Base Realignment and Closure (BRAC). BRAC Cleanup Teams composed of representatives from the Navy, as well as Federal and State regulatory agencies, have been formed to address the multitude of issues surrounding base closure and to enhance environmental decision making at BRAC installations where property will be available for transfer to the community. This team approach is intended to foster partnering, accelerate the environmental cleanup process, and expedite timely, cost-effective, and environmentally responsible disposal and reuse decisions.

At NTC, Orlando, the BRAC process includes the evaluation of the environmental condition of the property to ensure the suitability of transfer, reuse, or lease.

Questions regarding the UST program at NTC, Orlando should be addressed to Mr. Nick Ugolini, Code 1843, at (803) 820-5596.

EXECUTIVE SUMMARY

ABB Environmental Services, Inc. (ABB-ES), has been authorized by Southern Division, Naval Facilities Engineering Command to prepare site assessment reports for petroleum-impacted sites discovered during the Base Realignment and Closure (BRAC) Tank Management Plan implementation at the Naval Training Center, Orlando, McCoy Annex property in Orange County, Florida. This Site Assessment Report (SAR) has been prepared to evaluate soil and groundwater conditions at the former Water Supply Pumping Station, Building /107.

This site assessment has been conducted following the guidelines contained in Section 62-770.600, Florida Administrative Code (FAC). A brief summary of the assessment results is provided below:

1. One 100-gallon underground storage tank (UST) stored leaded gasoline at Building /107. The UST was removed by Navy Public Works Center (PWC) Pensacola, on November 18, 1996. Following the removal of the UST, signs of petroleum impact to soil were observed. A Tank Closure Assessment Report (TCAR) was submitted by PWC Pensacola in February 1997. No groundwater sample was collected during the TCAR. Based on the soil screening data the TCAR recommended that a site assessment be prepared to evaluate petroleum impact to soil and groundwater.

2. Site assessment activities were conducted by ABB-ES from August 5, 1997, to November 10, 1997. On August 5, 1997, three piezometers (PZ-1, PZ-2, and PZ-3) were installed to a depth of approximately 8 feet below land surface (bls) to assess the direction of shallow groundwater flow.

3. On August 14 and September 19, 1997, three shallow monitoring wells (MW-1, MW-2, and MW-3) were installed to assess the horizontal extent of dissolved petroleum contamination in the shallow aquifer. The shallow monitoring wells were installed to a depth of 12 feet bls.

4. On October 14, 1997, hand-augered soil borings were advanced in the vicinity of the former tank area to assess whether or not petroleum-impacted soil was present. Evidence of petroleum-impacted soil was detected from 2 to 4 feet and 4 to 5 feet bls in hand-augered boring HA-1 and HA-2. Soil samples were collected and shipped to Savannah Laboratories and Environmental Services, Inc., to verify petroleum impact to soil found with the organic vapor analyzer.

5. On September 29, 1997, groundwater samples collected from the monitoring wells indicated that total xylenes were slightly above Chapter 62-770, FAC, target cleanup levels.

6. Groundwater flow direction was determined to be from north-northwest to south-southeast with a hydraulic gradient of 1.6×10^{-3} feet per foot (ft/ft). Due to the minimal petroleum impact to groundwater, no deep well was installed and no aquifer characterization was performed.

7. No active private potable water wells are located within 0.25 mile and public supply wells within 0.50 mile of this site.

8. ABB-ES recommends the excavation of petroleum-impacted soils in the area surrounding HA-1 and HA-2. Following excavation, additional soil samples will be collected to verify that all petroleum-impacted soil has been removed, and a No Further Action proposal for this site will be recommended.

TABLE OF CONTENTS

Site Assessment Report
Building 7107, McCoy Annex
Naval Training Center
Orlando, Florida

LIST OF FIGURES

Site Assessment Report
Building 7107, McCoy Annex
Naval Training Center
Orlando, Florida

LIST OF TABLES

GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
bls	below land surface
CAR	Contamination Assessment Report
FAC	Florida Administrative Code
FL-PRO	Florida-Petroleum Residual Organics
HSA	hollow-stem auger
ID	inside diameter
kg	kilogram
µg/ℓ	micrograms per liter
mg/kg	milligrams per kilogram
mg/ℓ	milligrams per liter
NTC	Naval Training Center
OVA	organic vapor analyzer
PAH	polynuclear aromatic hydrocarbons
ppm	parts per million
PVC	polyvinyl chloride
SAR	Site Assessment Report
SCTLs	Soil Cleanup Target Levels
TCAR	Tank Closure Assessment Report
TOC	top of casing
TRPH	total recoverable petroleum hydrocarbons
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
VOA	volatile organic aromatics

1.0 SITE DESCRIPTION AND BACKGROUND INFORMATION

Building 7107 (former Water Supply Pumping Station) is located on the east side of Daetwyler Drive north of 3rd Street in the northern part of the Naval Training Center (NTC), McCoy Annex, in Orange County, Florida. Figure 1-1 shows the site location and a map of the surrounding area. The site lies within the southeast part of Section 32, Township 23 South and Range 30 East, as shown on Figure 1-2, the Pine Castle, Florida, U.S. Geological Survey Quadrangle Map.

Building 7107, constructed in 1952 as a water supply well for the McCoy Annex, has an area of 85 square feet. It was constructed with concrete-block walls on a concrete slab and a flat concrete roof. The water supply well was abandoned on August 17, 1997, and the building was demolished on September 5, 1997. It is believed that prior to construction of the building, the property was undeveloped. Photographs of the site showing existing physical features are included in Appendix A, Site Photographs.

The water supply well at Building 7107 was part of a "Water Distribution Plan" built by the U.S. Air Force. The system was designed to supply water to the McCoy Annex during an emergency. The petroleum storage tank system consisted of a 100-gallon underground storage tank (UST) used to store leaded gasoline. The gasoline was used to run a motor that provided power to the pump in case of a power outage. During normal operations, the supply well produced water using a turbine pump equipped with an electric motor. A drive shaft connected the turbine with the gasoline motor. The location of the petroleum storage tank system is shown on Figure 1-3, Site Plan.

The 100-gallon UST was removed by Navy Public Works Center Pensacola, on November 18, 1996. Evidence of petroleum impact to soil was found within the excavation during the tank removal. Organic vapor analyzer (OVA) readings ranged from 187 parts per million (ppm) to 8,181 ppm. During the Tank Closure Assessment Report (TCAR) for the site, groundwater was not sampled. The TCAR recommended that a Site Assessment Report (SAR) be prepared for the site. Petroleum-impacted soil was removed from the excavation following the tank removal. No information is available regarding the quantity of soil removed. The TCAR contains a nonhazardous waste manifest with C.A. Meyer Paving & Construction Co. of Clermont as the designated disposal facility. The TCAR for Building 7107 is included in Appendix B.

This SAR summarizes the data gathered during the assessment activities at Building 7107. General information such as regional physiography, geology, hydrogeology, investigative methodologies, and procedures are included in the NTC, Orlando, McCoy Annex, Contamination Assessment Report (CAR) (ABB-ES, 1996).

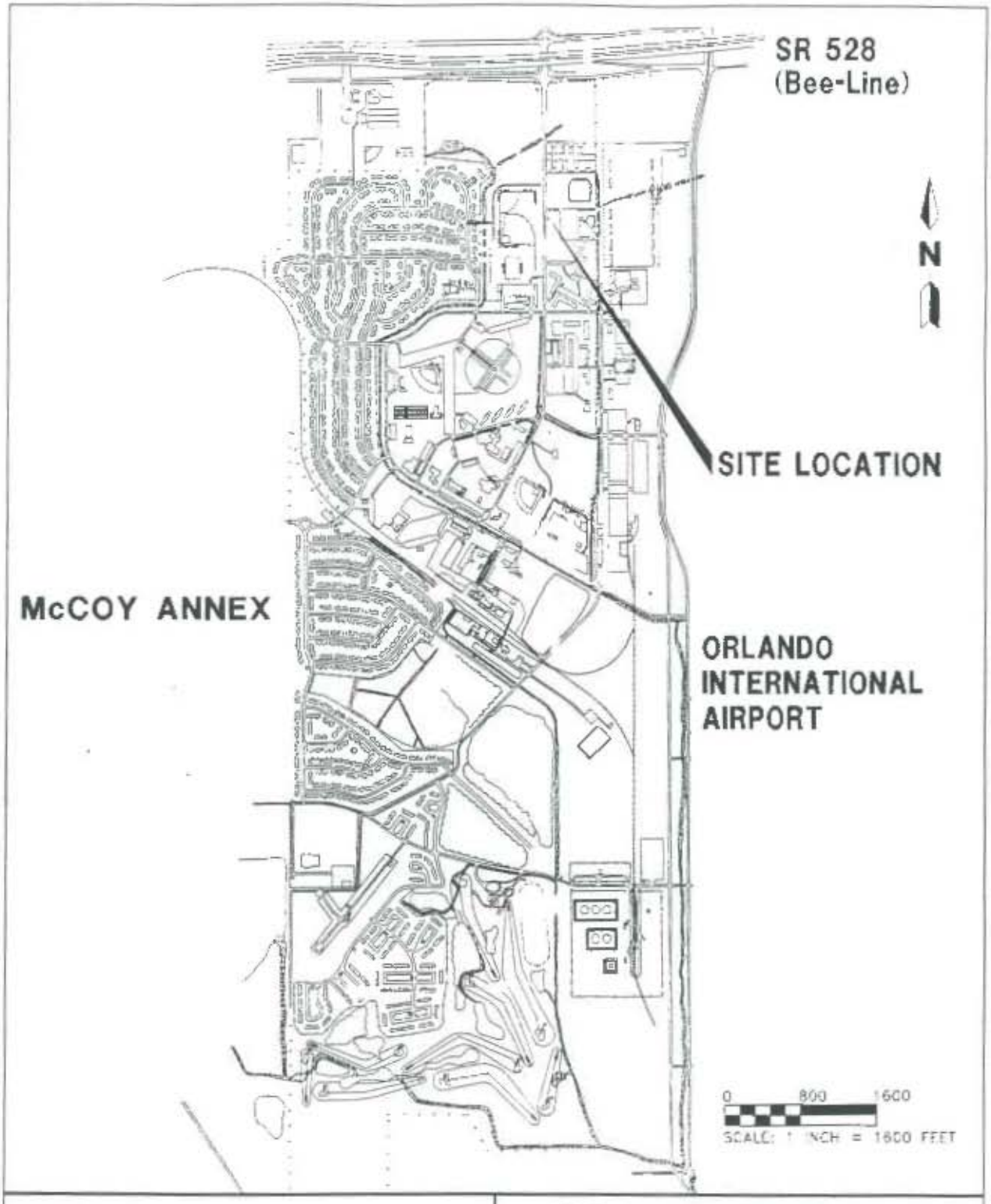
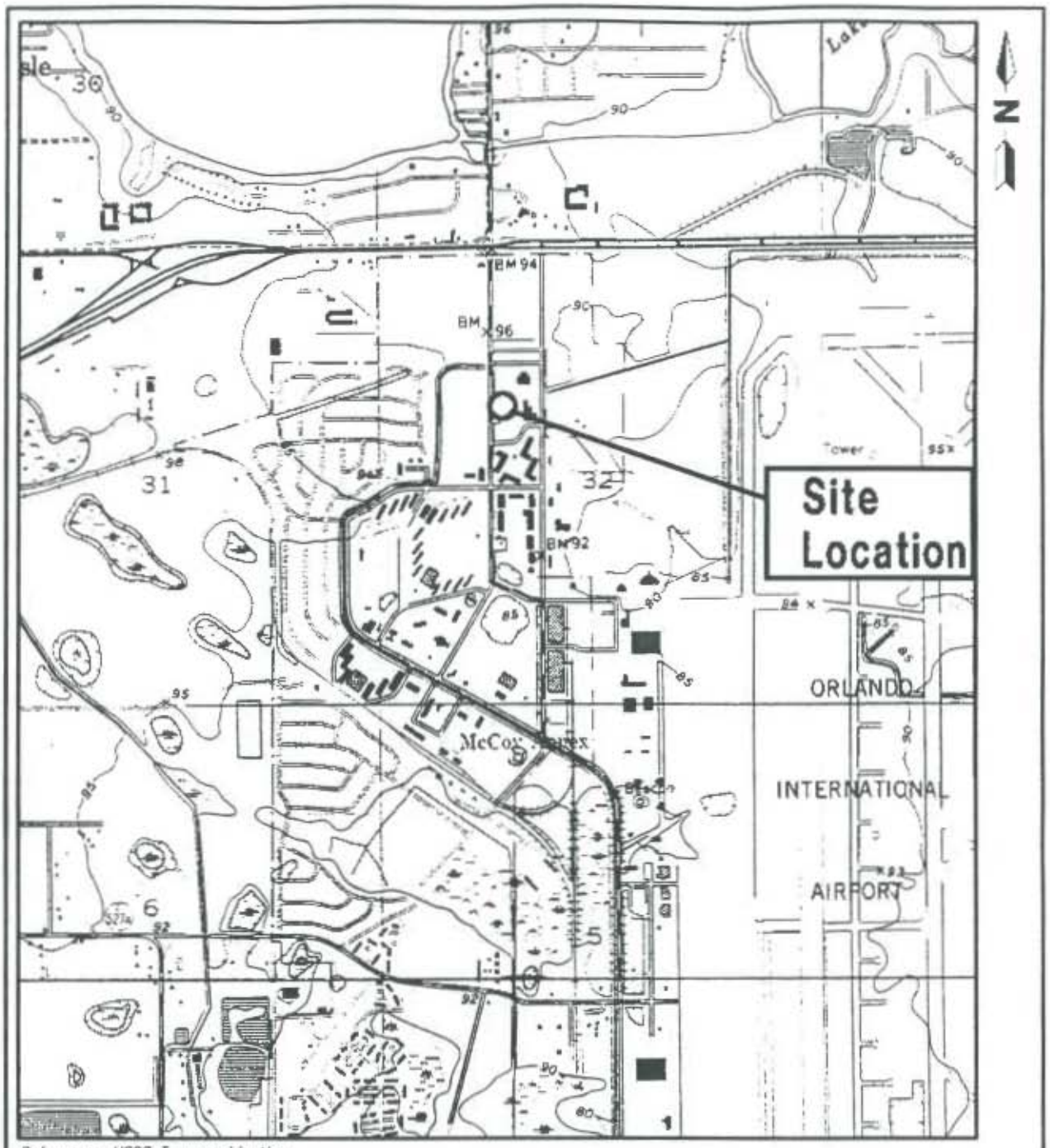


FIGURE 1-1
SITE VICINITY MAP

SITE ASSESSMENT
REPORT, BUILDING 7107,
MCCOY ANNEX

NAVAL TRAINING CENTER
ORLANDO, FLORIDA



Reference: USGS Topographic Map
Pine Castle Quadrangle
Florida, Orange County
7.5 Minute Series (Topographic)
1953 Photorevised 1980

FIGURE 1-2
TOPOGRAPHIC MAP

SITE ASSESSMENT REPORT, BUILDING 7107, MCCOY ANNEX

NAVAL TRAINING CENTER ORLANDO, FLORIDA

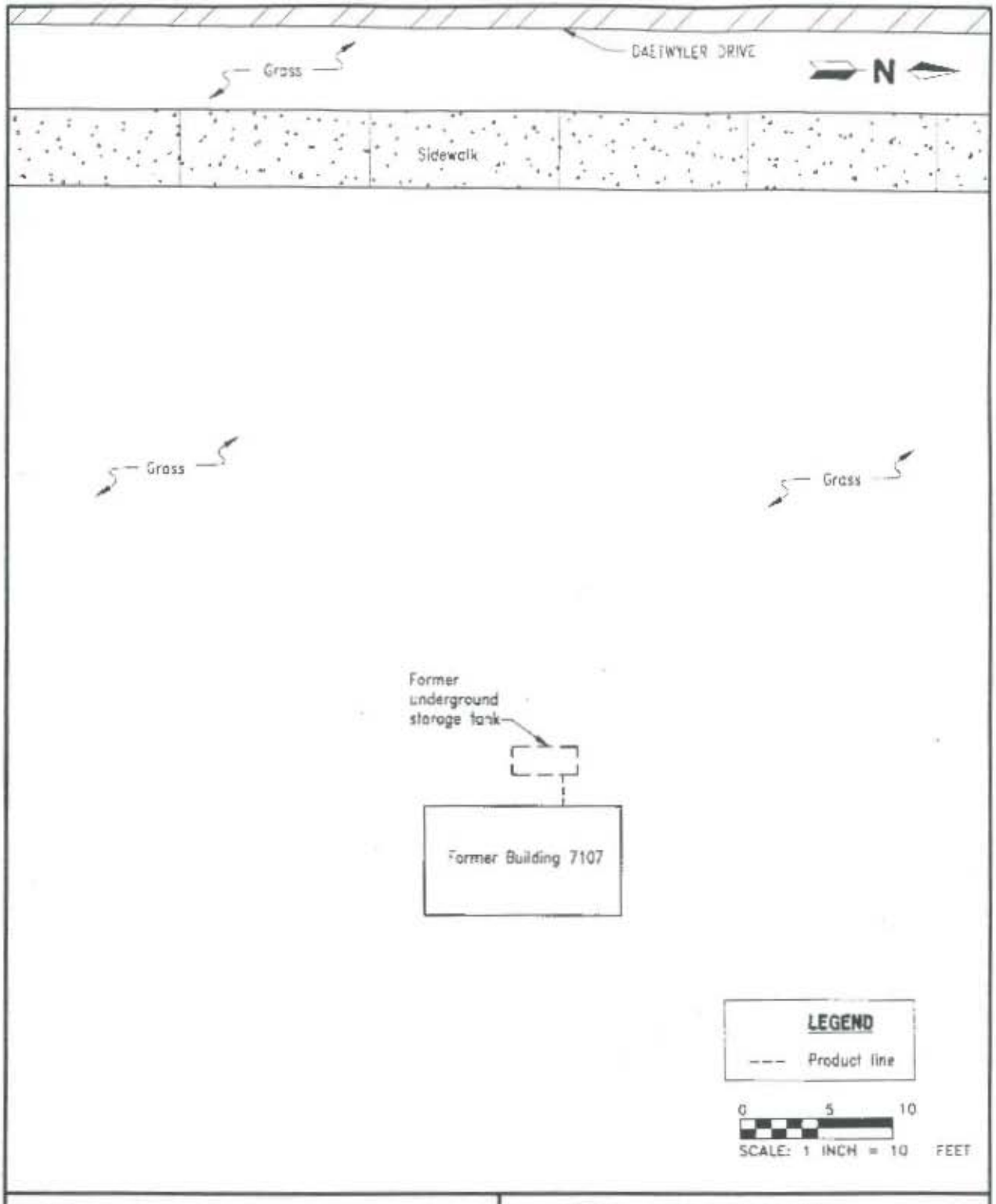


FIGURE 1-3
SITE PLAN

SITE ASSESSMENT REPORT, BUILDING 7107, MCCOY ANNEX

NAVAL TRAINING CENTER ORLANDO, FLORIDA

2.0 SITE ASSESSMENT METHODOLOGY

2.1 SOIL BORING PROGRAM. In order to determine if petroleum-contaminated soil exists on site, six hand-augered soil borings (HA-1 through HA-6) were advanced using a 3.25-inch inside diameter (ID) stainless steel bucket auger on October 14, 1997. Figure 2-1 shows the locations of the borings. The borings were completed into the water table, which was encountered at approximately 4.5 feet below land surface (bls).

A total of 16 soil samples were collected from the 6 hand-augered soil borings. The soil samples were collected at 0 to 2 feet, 2 to 4 feet, and 4 to 5 feet bls. Headspace organic vapor readings were measured for all soil samples by placing the soil sample in a 16-ounce glass jar and using a calibrated OVA, Foxboro 128 equipped with a flame ionization detector following procedures outlined in Chapter 62-770, Florida Administrative Code (FAC). Carbon filters are utilized to differentiate total hydrocarbon response from naturally occurring methane gas. Filtered and unfiltered readings were obtained from a single jar. All sampling and analysis is performed in accordance with ABB Environmental Services, Inc. (ABB-ES), Florida Department of Environmental Protection-approved Comprehensive Quality Assurance Plan.

2.2 SOIL SAMPLING PROGRAM. In order to confirm and characterize petroleum impact to soil, two soil samples (SS-1 and SS-2) were collected for laboratory analysis on October 14, 1997. The soil samples were selected to correspond to high and low OVA results obtained during field screening. No medium OVA results were obtained during the screening. Soil samples were packed on ice and shipped to Savannah Laboratories and Environmental Services, Inc., of Savannah, Georgia, for analysis. The soil samples were analyzed using U.S. Environmental Protection Agency (USEPA) Methods 8020, 8100, and Total Recoverable Petroleum Hydrocarbons (TRPH) using the Florida Petroleum Residual Organics (FL-PRO).

2.3 MONITORING WELL INSTALLATION PROGRAM. Two shallow monitoring wells (MW-2 and MW-3) were installed at the site on August 14, 1997. An additional shallow monitoring well (MW-1) was installed at the site on September 19, 1997, after the demolition of Building 7107. The wells were installed using hollow-stem auger (HSA) drilling techniques to a depth of 12 feet bls. A typical shallow monitoring well construction detail is provided on Figure 2-2. Each shallow monitoring well was constructed with 10 feet of 2-inch-diameter 0.010-inch slotted well screen coupled to 2 feet of 2-inch Schedule 40 solid polyvinyl chloride (PVC). This assembly is placed in the borehole so that the screen interval is located at a depth that encompasses seasonal water table fluctuations. The annular space between the screen and the borehole is filled with 20/30-grade silica sand to 0.5 foot above the screened interval. A 0.5-foot fine-grained sand (30/65-grade) seal is placed on top of the filter pack. The remaining annular space is sealed to grade with neat cement grout mixture. A summary of the well construction details is presented in Table 2-1. Appendix C contains the well completion logs provided by the drilling subcontractor.

All monitoring wells are completed flush mount with surface grade well vaults, and locking well caps were installed to conform with standards outlined in Chapter 40C-3, FAC. Each monitoring well was developed by pumping until clear

Table 2-1
Groundwater Monitoring Well Construction Data Summary

Site Assessment Report
Building 7107, McCoy Annex
Naval Training Center
Orlando, Florida

Well Number	Date Installed	Total Depth (feet bls)	Well Diameter (inches)	Screened Interval (feet bls)	Slot Size (inches)	Comments
MW-1	9/19/97	12	2	2 to 12	0.01	Installed by Groundwater Protection, Inc.
MW-2	8/14/97	12	2	2 to 12	0.01	Installed by Groundwater Protection, Inc.
MW-3	8/14/97	12	2	2 to 12	0.01	Installed by Groundwater Protection, Inc.

Note: bls = below land surface.

and free of sediment. Thorough field decontamination procedures are strictly enforced to prevent possible cross-contamination between field monitoring points. All drilling equipment, including drilling rods, bits, and HSA, is thoroughly decontaminated between each well installation.

2.4 GROUNDWATER SAMPLING PROGRAM. Groundwater samples were collected from monitoring wells MW-1, MW-2, and MW-3 on September 29, 1997. The samples collected from MW-1, MW-2, and MW-3 were packed on ice and transported to Savannah Laboratories & Environmental Services, Inc., for analysis. Groundwater samples collected from monitoring wells MW-1, MW-2, and MW-3 were analyzed for the sampling requirements established in Chapter 62-770, FAC, for sites with petroleum discharges defined under the gasoline analytical group, which includes the following USEPA Methods: 504 (ethylene dibromide), 601 (volatile halocarbons), 602 (volatile organic aromatics [VOAs]), 239.2 (total lead), 610 (polynuclear aromatic hydrocarbons [PAHs]), and FL-PRO (TRPH).

2.5 GROUNDWATER ELEVATION SURVEY. The elevation and slope of the water table was calculated using the field-surveyed top-of-well casing data for each monitoring well and piezometer and correlating the elevation data to a common datum. On August 5, October 23, and November 10, 1997, depth to groundwater was measured from the top of casing (TOC) to the nearest hundredth of a foot in each of the monitoring wells and piezometers with an electronic water-level indicator. The groundwater depths were subtracted from the TOC elevation to obtain relative water table elevations. The wells were checked for the presence of free product by visual inspection of groundwater samples taken from each well and the use of an oil-water interface probe.

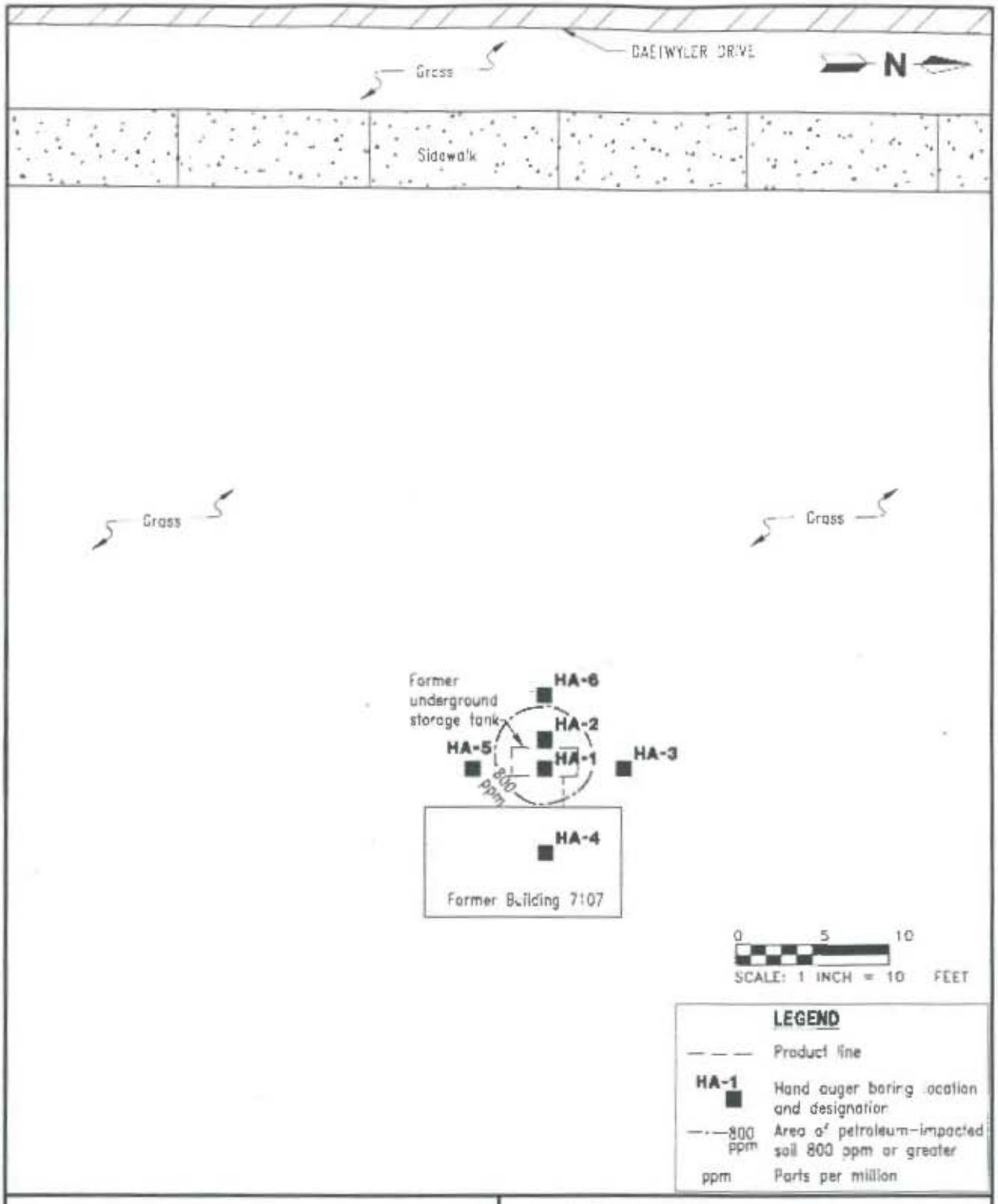


FIGURE 2-1
SOIL BORING LOCATION PLAN

SITE ASSESSMENT REPORT, BUILDING 7107, MCCOY ANNEX

NAVAL TRAINING CENTER ORLANDO, FLORIDA

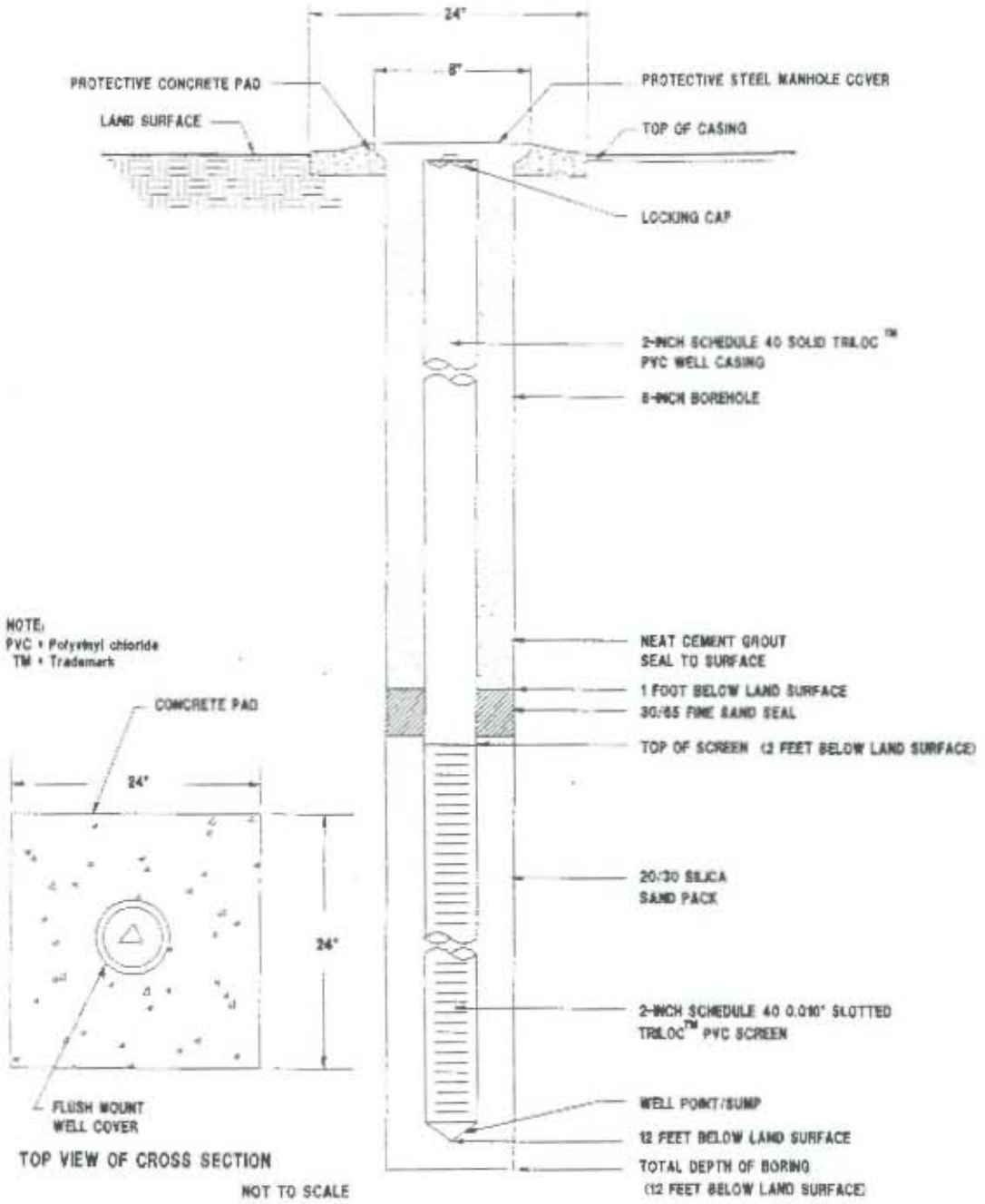


FIGURE 2-2
TYPICAL SHALLOW MONITORING WELL
CONSTRUCTION DETAIL

SITE ASSESSMENT
REPORT, BUILDING 7107,
MCCOY ANNEX

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 SITE STRATIGRAPHY. For purposes of this investigation, site stratigraphy and aquifer evaluation were limited to the surficial aquifer beneath the site. The soil profile for the Building 7107 site is based on visual examination of soil samples collected from soil borings and drill cuttings obtained during the investigation. A typical stratigraphic soil profile consists of light gray to brown to black, fine-grained sand down to a depth of 12 feet bls. A lithologic cross section has not been prepared for the site because of the uniform lithology. Lithologic logs for monitoring wells installed during this investigation are included as Appendix D, Lithologic Logs.

3.2 SITE HYDROGEOLOGY AND GROUNDWATER FLOW DIRECTION. Groundwater elevations across the site were calculated by measuring water levels on August 5, October 23, and November 10, 1997, in the site's monitoring wells and piezometers and by surveying the relative TOC elevations. The hydraulic gradient across the site was calculated by measuring the change in elevation head between monitoring wells MW-3 (upgradient well) and MW-2 (downgradient well) and dividing this head difference by the horizontal distance between these two wells. The scaled horizontal distance is 51 feet, and the change in elevation head between the wells, as measured on October 23, 1997, was 0.08 foot. The calculated hydraulic gradient is equal to 1.6×10^{-3} feet per foot. The site groundwater flow direction, based on the water table surface contour map, is from north-northwest to south-southeast. Table 3-1 is a summary of groundwater elevation data for the three groundwater level measurements. Figures 3-1, 3-2, and 3-3 are the water table surface contour maps for August 5, October 23, and November 10, 1997, respectively. The water-level elevation obtained from PZ-1 on November 10, 1997, was not used in the water table contour map.

3.3 AQUIFER CHARACTERISTICS. Due to the minimal groundwater contamination, no slug tests were performed at this site.

3.4 POTABLE WELL SURVEY. A potable well survey for the surrounding area is included in the McCoy Annex CAR (ABB-ES, 1996). No active potable wells are reported in the site vicinity. Three potable wells, abandoned according to the South Florida Water Management District's guidelines, are located in the site vicinity, including WW-1, on site; WW-2, 800 feet south; and WW-5, 2150 feet south. Two potable wells, currently not in service, are also located in the site vicinity, including WW-3, 1,300 feet south; and WW-4, 1,650 south-southeast. In addition, one irrigation well is located approximately 0.5-mile northeast of the site. See Figure 5-1, Potable and Irrigation Well Locations, of the McCoy Annex CAR (ABB-ES, 1996).

3.5 SURFACE WATER. There are no surface water bodies in the site vicinity. Two seasonal drainage ditches, located approximately 550 feet east and 600 feet west of the site drain the area from north to south into a ditch located on the south side of Binnacle Way. During this investigation both ditches were dry.

Table 3-1
Groundwater Elevation Summary

Site Assessment Report
Building 7107, McCoy Annex
Naval Training Center
Orlando, Florida

Well Number	Date	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Product Thickness (feet)	Top of Casing[1] Elevation (feet)	Water Level[1] Elevation (feet)
MW-1	NA	--	NA	--	94.52	NA
	10/23/97	--	5.80	--		88.72
	11/10/97	--	4.79	--		89.73
MW-2	NA	--	NA	--	94.39	NA
	10/23/97	--	5.72	--		88.67
	11/10/97	--	4.67	--		89.72
MW-3	NA	--	NA	--	93.77	NA
	10/23/97	--	5.02	--		88.75
	11/10/97	--	4.01	--		89.76
PZ-1	08/05/97	--	3.39	--	96.50	93.11
	10/23/97	--	7.77	--		88.73
	11/10/97	--	6.74	--		89.76
PZ-2	08/05/97	--	3.51	--	96.58	93.07
	10/23/97	--	7.93	--		88.65
	11/10/97	--	6.87	--		89.71
PZ-3	08/05/97	--	2.42	--	95.54	93.12
	10/23/97	--	6.79	--		88.75
	11/10/97	--	5.78	--		89.76

[1] Referenced to arbitrary datum.

Notes: ft btoc = feet below top of casing.
NA = not available.
-- = not applicable.

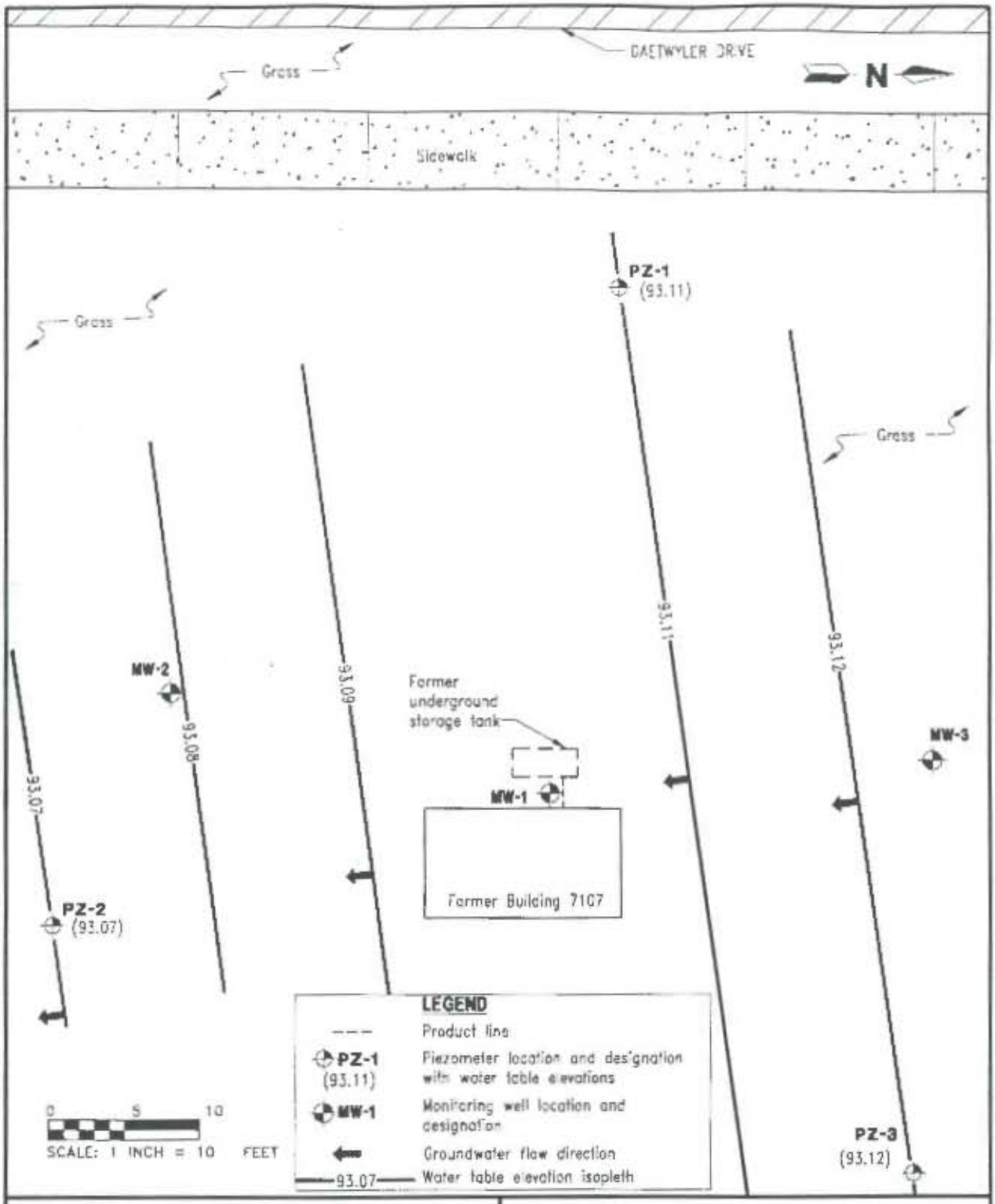


FIGURE 3-1
WATER TABLE ELEVATION
CONTOUR MAP, AUGUST 5, 1997

SITE ASSESSMENT
REPORT, BUILDING 7107,
MCCOY ANNEX

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

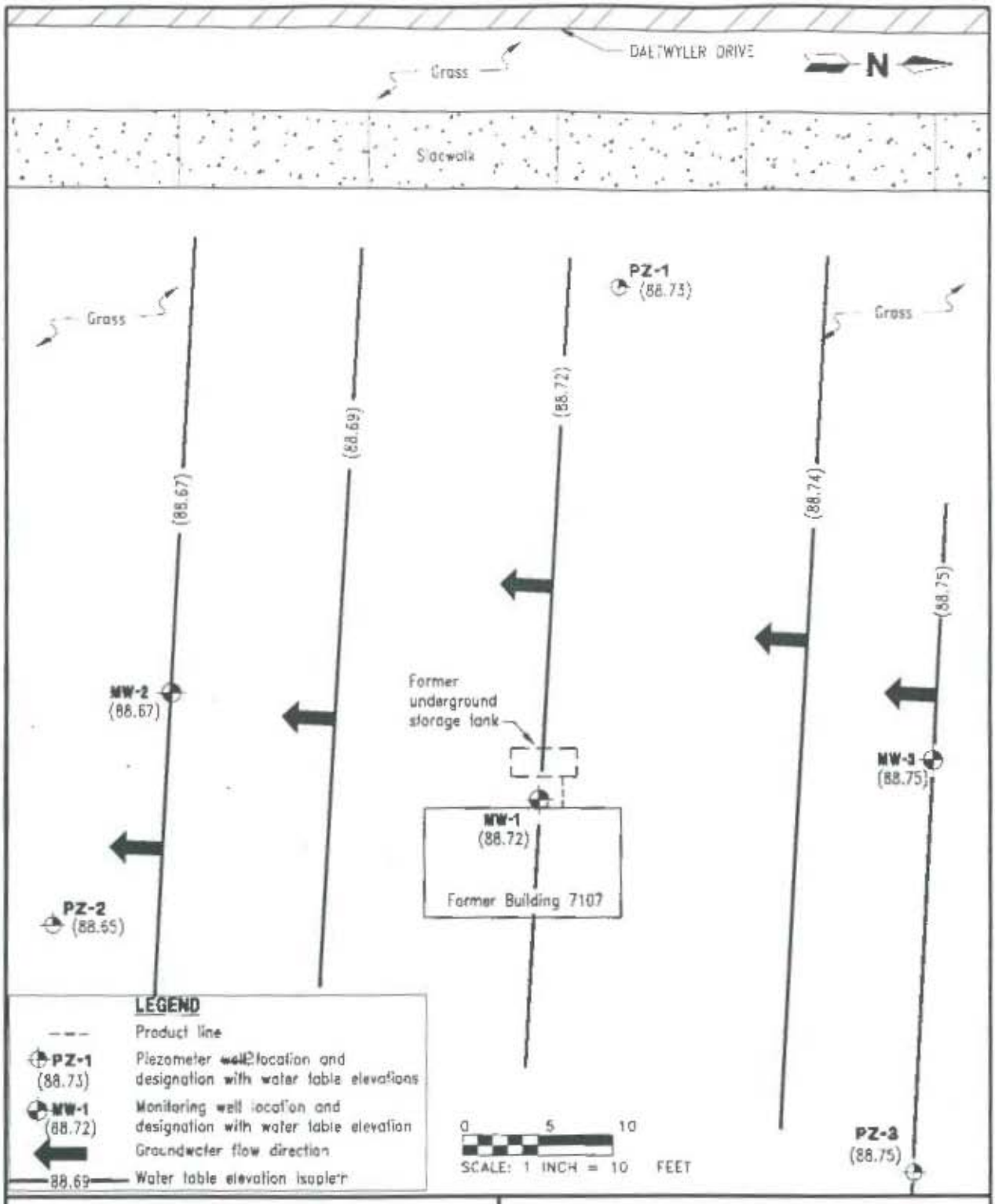


FIGURE 3-2
WATER TABLE ELEVATION CONTOUR MAP, OCTOBER 23, 1997

SITE ASSESSMENT REPORT, BUILDING 7107, MCCOY ANNEX

NAVAL TRAINING CENTER ORLANDO, FLORIDA

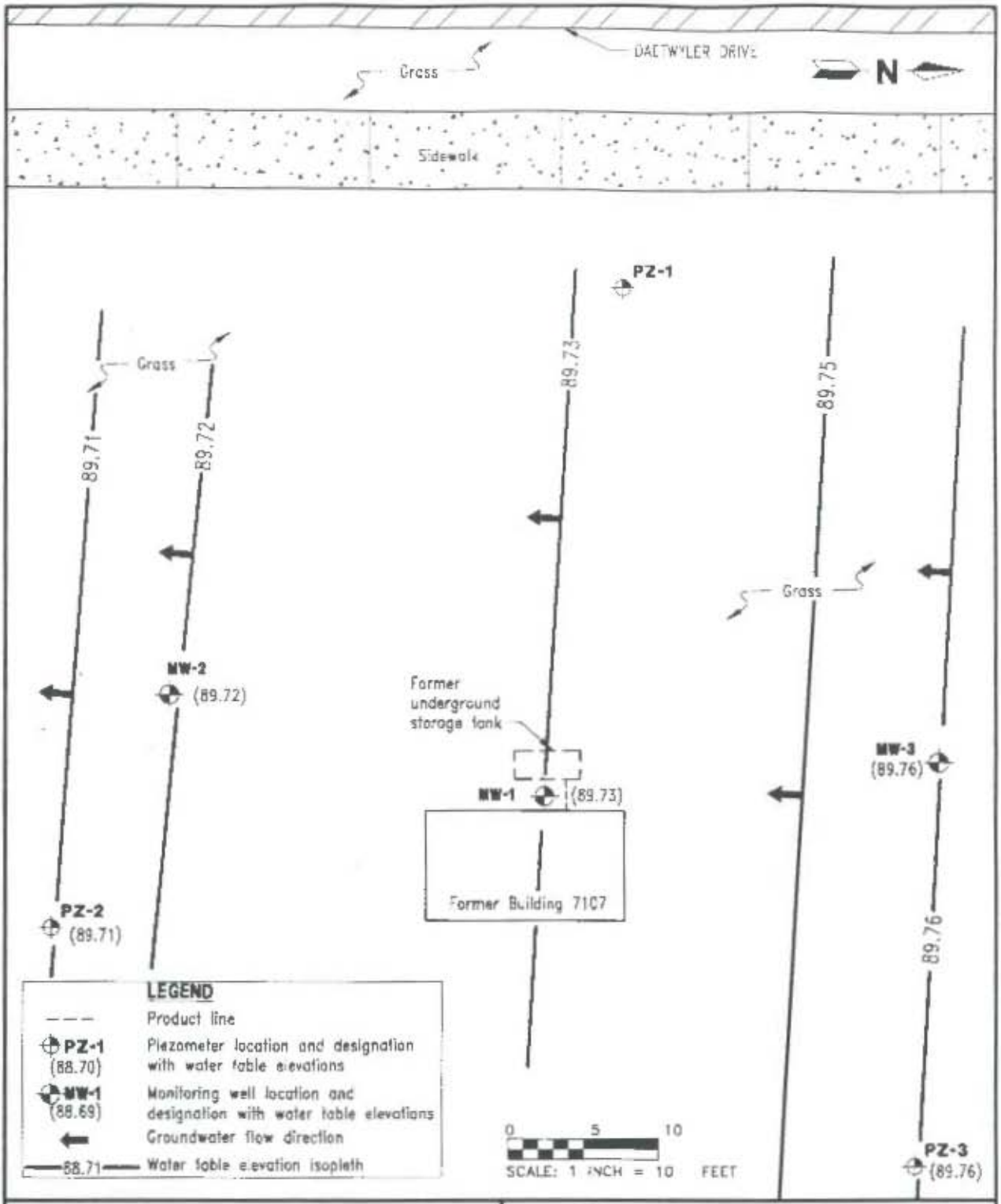


FIGURE 3-3
WATER TABLE ELEVATION
CONTOUR MAP, NOVEMBER 10, 1997

SITE ASSESSMENT
REPORT, BUILDING 7107,
MCCOY ANNEX

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

4.0 SITE ASSESSMENT RESULTS

4.1 SOIL CONTAMINATION. Six hand-augered soil borings (HA-1 through HA-6) were advanced using a 3.25-inch ID stainless steel bucket auger on October 14, 1997. Figure 2-1 shows the hand-augered soil boring locations. Sixteen soil samples were collected at discrete intervals for OVA analysis. A summary of OVA results is presented in Table 4-1.

Petroleum-impacted soil was encountered in hand-augered borings HA-1 (800 ppm at 2 to 4 feet and greater than 1,000 ppm at 4 to 5 feet) and HA-2 (2 ppm at 0 to 2 feet, 850 ppm at 2 to 4 feet, and greater than 1,000 ppm at 4 to 5 feet) during field screening.

Two composite soil samples were collected for laboratory analysis, including SS-1 (HA-2 from 4 to 5 feet bls) and SS-2 (HA-6 from 2 to 4 feet bls). The soil samples were analyzed using USEPA Methods 8020 and 8100 and FL-PRO. Laboratory analytical results for soil sample SS-1 reported total xylenes concentrations of 52 milligrams per kilogram (mg/kg) and ethylbenzene at 1.9 mg/kg; both reported values are below Chapter 62-770, FAC, soil cleanup target levels (SCTLs). Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were reported at 5.5 mg/kg, 3.1 mg/kg, and 5.3 mg/kg, respectively. All values are below Chapter 62-770, FAC, SCTLs. TRPH was reported in soil sample SS-1 at 430 mg/kg and at 34 mg/kg in SS-2. The TRPH reported for SS-1 is above Chapter 62-770, FAC SCTLs for a residential exposure (350 mg/kg), but below the industrial exposure (2,500 mg/kg). All other parameters analyzed reported concentrations below laboratory standard detection limits. The soil laboratory analytical reports are included in Appendix E, and results are summarized in Table 4-2.

4.2 FREE PRODUCT OCCURRENCE. During the sampling of MW-1, MW-2, and MW-3 on September 29, 1997, no petroleum sheen was detected on the groundwater samples from the monitoring wells. No free product was detected during the remaining site assessment activities.

4.3 GROUNDWATER CONTAMINATION. As part of the site assessment activities, three shallow monitoring wells (MW-1, MW-2, and MW-3) were installed at the site on August 14 and September 19, 1997, and sampled on September 29, 1997. These monitoring wells were installed to assess the groundwater flow direction and the horizontal extent of hydrocarbon contamination. Locations of the monitoring wells are shown on Figure 4-1.

Groundwater samples were collected from monitoring wells MW-1, MW-2, and MW-3 on September 29, 1997. Groundwater samples were analyzed for the gasoline analytical group, which includes the following USEPA Methods: 504 (ethylene dibromide), 601 (volatile halocarbons), 602 (VOA), 239.2 (total lead), 610 (PAH), and FL-PRO (TRPH). Laboratory analytical results indicate the presence of total xylenes in MW-1 at 24 micrograms per liter ($\mu g/\ell$), exceeding the Chapter 62-770, FAC, cleanup target level of 20 $\mu g/\ell$. In addition, TRPH was detected in MW-1 (0.72 milligrams per liter [mg/ℓ]) and total lead was detected in MW-2 (5.1 $\mu g/\ell$), both at levels below Chapter 62-770, FAC, cleanup target levels for TRPH and lead, respectively. No other compounds were detected at levels exceeding laboratory standard detection limits. Water sampling logs are included in Appendix F. The groundwater laboratory analytical reports are included in Appendix G, and laboratory analytical results are summarized in Table 4-3.

Table 4-1
Summary of Organic Vapor Analyses, October 14, 1997

Site Assessment Report
Building 7107, McCoy Annex
Naval Training Center
Orlando, Florida

Soil Boring Designation	Sample Depth (feet bls)	Unfiltered (ppm)	Filtered (ppm)	Total Hydrocarbons (ppm)	Physical Observations
HA-1	0 to 2	<1	<1	<1	No staining, slight petroleum odor.
	2 to 4	800	<1	800	No staining, strong petroleum odor.
	4 to 5	>1,000	<1	>1,000	No staining, strong petroleum odor.
HA-2	0 to 2	2	<1	2	No staining, slight petroleum odor.
	2 to 4	850	<1	850	No staining, strong petroleum odor.
(SS-1)	4 to 5	>1,000	<1	>1,000	No staining, strong petroleum odor.
HA-3	0 to 2	2	<1	2	No staining, no petroleum odor.
	2 to 4	1	<1	1	No staining, no petroleum odor.
	4 to 5	1	<1	1	No staining, no petroleum odor.
HA-4	0 to 2	<1	<1	<1	No staining, no petroleum odor.
	2 to 4	<1	<1	<1	No staining, no petroleum odor.
HA-5	0 to 2	<1	<1	<1	No staining, no petroleum odor.
	2 to 4	<1	<1	<1	No staining, no petroleum odor.
HA-6	0 to 2	<1	<1	<1	No staining, no petroleum odor.
(SS-2)	2 to 4	<1	<1	<1	No staining, no petroleum odor.
	4 to 5	<1	<1	<1	No staining, no petroleum odor.

[1] Water table present at approximately 4.5 feet bls.

Notes: bls = below land surface.
ppm = parts per million.
<1 = less than one; nondetectable limit for organic vapor analyzer.
> = greater than.
HA = hand-auger boring designation.
SS = soil sample collected for laboratory analysis.

Table 4-2
Summary of Soil Analytical Results

Site Assessment Report
Building 7107, McCoy Annex
Naval Training Center
Orlando, Florida

Parameter	Direct Exposure Soil[1] Cleanup Target Levels (mg/kg)		Soil Sample/Sample Data	
	Residential	Industrial	SS-1 10/14/97	SS-2 10/14/97
Benzene	1.1	1.5	<0.43	<0.0054
Toluene	300	2,000	<0.43	<0.0054
Ethylbenzene	240	240	1.9	<0.0054
Total xylenes	290	290	52	<0.0054
MTBE	350	6,100	<4.3	<0.054
TRPH	350	2,500	**430**	34
Acenaphthene	2,300	22,000	<0.72	<0.35
Acenaphthylene	1,100	11,000	<0.72	<0.35
Benzo(a)pyrene	0.1	0.5	<0.72	<0.35
Benzo(g,h,i)perylene	2,300	45,000	<0.72	<0.35
Benzo(b)fluoranthene/benzo(k)fluoranthene[2]	1.4/15	5/52	<0.72	<0.35
Chrysene/benzo(a)anthracene[2]	140/1.4	490/5.1	<0.72	<0.35
Fluoranthene	2,800	45,000	<0.72	<0.35
Fluorene	2,100	24,000	<0.72	<0.35
Indeno(1,2,3-c,d)pyrene/dibenzo(a,h)anthracene[2]	1.5/0.1	5.2/0.5	<0.72	<0.35
Naphthalene	1,000	8,600	5.5	<0.35
Phenanthrene/anthracene[2]	1,900/19,000	29,000,/290,000	<0.72	<0.35
Pyrene	2,200	40,000	<0.72	<0.35
1-Methylnaphthalene	NA	NA	3.1	<0.35
2-Methylnaphthalene	NA	NA	5.3	<0.35

[1] Cleanup target levels for residential and industrial exposure as defined in Table IV of Chapter 62-770, Florida Administrative Code.
[2] Compounds cannot be separated using gas chromatographic techniques for U.S. Environmental Protection Agency Method 8100.

Notes: All concentrations in mg/kg.

Concentrations in bold represent values exceeding Chapter 62-770, Florida Administrative Code, Target Cleanup Levels.

mg/kg = milligrams per kilogram.
< = less than.
MTBE = methyl tert-butyl ether.
TRPH = total recoverable petroleum hydrocarbons (by Florida Petroleum Residual Organics analysis).
NA = not available.
SS = soil sample.

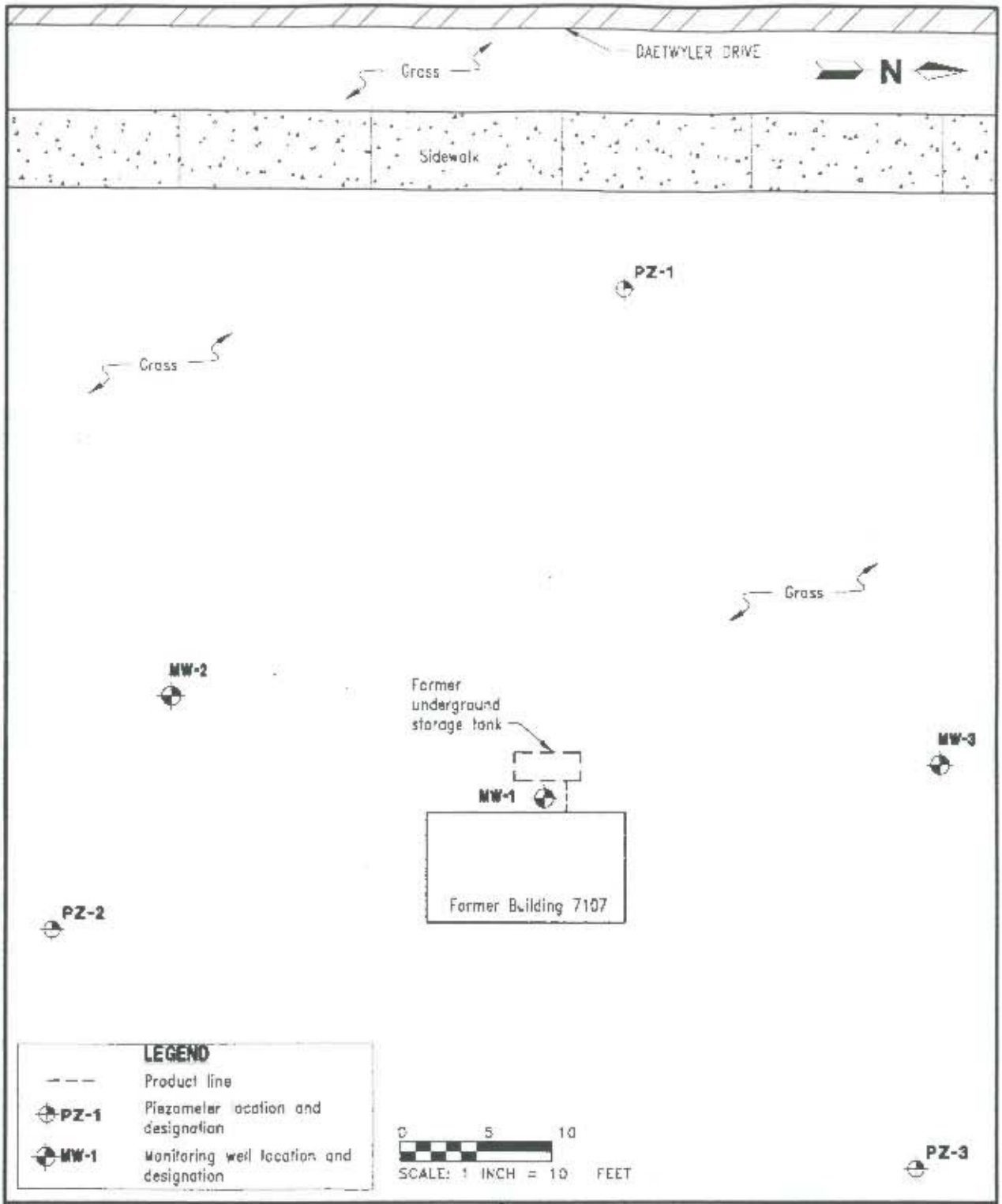


FIGURE 4-1
MONITORING WELL LOCATION PLAN

SITE ASSESSMENT REPORT, BUILDING 7107, MCCOY ANNEX

NAVAL TRAINING CENTER ORLANDO, FLORIDA

Table 4-3
Summary of Groundwater Analytical Results

Site Assessment Report
Building 7107, McCoy Annex
Naval Training Center
Orlando, Florida

Parameter	Chapter 62-770, FAC Cleanup Target Levels (µg/ℓ)	Monitoring Well/Sample Date		
		MW-1 9/29/97	MW-2 9/29/97	MW-3 9/29/97
Benzene	1	<1	<1	<1
Toluene	40	<1	<1	<1
Ethylbenzene	30	<1	<1	<1
Total Xylenes	20	**24**	<2	<2
MTBE	35	<10	<10	<10
Acenaphthene	20	<10	<10	<10
Acenaphthylene	210	<10	<10	<10
Benzo(a)pyrene	0.2	<10	<10	<10
Benzo(b,k)fluoranthene	0.2/0.5	<10	<10	<10
Benzo(g,h,i)perylene	210	<10	<10	<10
Chrysene + benzo(a)anthracene	5/0.2	<10	<10	<10
Fluoranthene	280	<10	<10	<10
Fluorene	280	<10	<10	<10
Indeno(1,2,3-c,d)pyrene + dibenzo(a,h)anthracene	0.2/0.2	<10	<10	<10
Naphthalene	20	<10	<10	<10
Phenanthrene + anthracene	210/2100	<10	<10	<10
Pyrene	210	<10	<10	<10
1,2-dichloroethane	3	<1.0	<1.0	<1.0
1,2-dibromoethane (EDB)	0.02	<0.02	<0.02	<0.02
Total lead	15	<5	5.1	<5
TRPH (mg/ℓ)	5	0.72	<0.3	<0.3

Notes: All concentrations in µg/ℓ, unless otherwise noted.
Concentrations in bold represent values exceeding Chapter 62-770 FAC Target Cleanup Levels.

< = less than.
FAC = Florida Administrative Code.
MTBE = methyl tert-butyl ether.
EDB = ethylene dibromide.
TRPH = total recoverable petroleum hydrocarbons (by Florida Petroleum Residual Organics analysis).
mg/ℓ = milligrams per liter.
µg/ℓ = micrograms per liter.

5.0 SOURCE OF HYDROCARBONS

5.1 HYDROCARBON TYPE AND MASS DISTRIBUTION. The hydrocarbon type stored in the UST at Building 7107 is gasoline; because of the age of the water supply well, it is assumed that leaded gasoline was stored on this site. The laboratory analytical data for soil and groundwater support this assessment. Based on the findings of this investigation, the petroleum mass found is sorbed to soil in the unsaturated zone and dissolved in groundwater (24 $\mu g/\ell$). Using laboratory results for soil sample SS-1 and estimating the area with OVA-readings of 850 ppm or greater, a total hydrocarbon mass sorbed to soil was estimated as follows. The area with petroleum-impacted soil 800 ppm or greater was calculated to be 50 square feet (see Figure 2-1) and the volume of unsaturated soil was estimated at 200 cubic feet (4 feet bls). Laboratory results for soil sample SS-1 had a total hydrocarbon mass of 497.8 mg/kg (ethylbenzene 1.9 mg/kg, TRPH 430 mg/kg, total xylenes 52 mg/kg, naphthalene 5.5 mg/kg, 1-methylnaphthalene 3.1 mg/kg, and 2-methylnaphthalene 5.3 mg/kg). By assuming that petroleum-impacted soil of 800 ppm at the site had a hydrocarbon mass as SS-1, then the total hydrocarbon mass sorbed to soil is estimated to be 4.68 kilograms (kg). The calculations associated with the derivation of this value are included in Appendix H. Mass calculation for total xylenes dissolved in groundwater are not presented, since levels slightly exceed Chapter 62-770, FAC, cleanup target levels.

5.2 SOURCE OF HYDROCARBON PLUME. The suspected source of the small amounts of hydrocarbons in the groundwater and soil is the former UST. Petroleum discharges could be attributed to overfill and/or overspills while filling the UST.

5.3 MECHANISM OF TRANSPORT. None of the drainage ditches or utility lines near the source of petroleum contamination appears to influence groundwater flow in the surficial aquifer of the study area. The lack of petroleum contamination in groundwater does not give insight into the possible mechanisms of transport.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The amount of petroleum hydrocarbons sorbed to soil at the site is estimated to be 4.68 kg. ABB-ES recommends the removal of petroleum-impacted soil, considering that groundwater at the site exceeds cleanup target levels for total xylenes slightly. ABB-ES recommends no active remediation for the groundwater; however, following removal of petroleum-impacted soil, the groundwater should be sampled.

7.0 PROFESSIONAL REVIEW CERTIFICATION

This document, *Site Assessment Report, Building 7107, McCoy Annex, Naval Training Center, Orlando, Florida,* has been prepared under the direction of a Professional Geologist registered in the State of Florida. The work and professional opinions rendered in this report were conducted or developed in accordance with commonly accepted procedures consistent with applicable standards of practice. This assessment is based on the geologic investigation and associated information detailed in the text and appended to this report or referenced in public literature. Recommendations are based upon interpretations of the applicable regulatory requirements, guidelines, and relevant issues discussed with regulatory personnel during the site investigation. If conditions that differ from those described are determined to exist, the undersigned geologist should be notified to evaluate the effects of any additional information on this assessment or the recommendations made in this report. This report meets the criteria set forth in Chapter 492 of the Florida Statutes with regard to good professional practices as applied to Chapter 62-770 of the FAC. This SAR was developed for the Building 7107 site at the McCoy Annex, NTC, Orlando, in Orlando, Florida, and should not be construed to apply to any other site.

Manuel Alonso
Professional Geologist
P.G. No. 0001256

1/28/98
Date

REFERENCE

ABB Environmental Services, Inc. 1996. *Contamination Assessment Report, McCoy Annex, Naval Training Center, Orlando, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command, North Charleston, South Carolina (February).

APPENDIX A

SITE PHOTOGRAPHS

Photograph 1: View of the pump house and former UST area on west side of Building /107, facing southeast.

Photograph 2: View of former UST area facing south-southwest, after supply well was abandoned and Building 7107 was demolished.

APPENDIX B

TANK CLOSURE ASSESSMENT REPORT

FILE COPY

CLOSURE ASSESSMENT
UNDERGROUND STORAGE TANK
BUILDING 7107

NAVAL TRAINING CENTER
MCCOY ANNEX
ORLANDO, FLORIDA

Unit Identification Code: N65928

Prepared by:

Navy Public Works Center
Environmental Department
310 John Tower Road
Pensacola, Florida, 32508

Prepared for:

Naval Facilities Engineering Command
Southern Division
2155 Eagle Drive
Charleston, South Carolina 29418

Nick Ugolini, Code 1843, Engineer-in-Charge

February 1997

CLOSURE ASSESSMENT
UNDERGROUND STORAGE TANK
BUILDING 7107

NAVAL TRAINING CENTER
MCCOY ANNEX
ORLANDO, FLORIDA

Unit Identification Code: N65928

Prepared by:

Navy Public Works Center
Environmental Department
310 John Tower Road
Pensacola, Florida, 32508

Prepared for:

Naval Facilities Engineering Command
Southern Division
2155 Eagle Drive
Charleston, South Carolina 29418

Nick Ugolini, Code 1843, Engineer-in-Charge

February 1997

TABLE OF CONTENTS

Closure Assessment Report
Underground Storage Tank
Building 7107
Naval Training Center
McCoy Annex
Orlando, Florida

GLOSSARY

FAC	Florida Administrative Code
OVA	Organic Vapor Analyzer
AST	Aboveground Storage Tank
UST	Underground Storage Tank
USEPA	U.S. Environmental Protection Agency

CLOSURE ASSESSMENT REPORT
UNDERGROUND STORAGE TANK
BUILDING 7107

1.0 Facility

Building 7107
Naval Training Center
McCoy Annex
Orlando, Orange County, Florida

2.0 Operator

Commander, Naval Training Center
1350 Grace Hopper Avenue, Code 010E
Orlando, Florida 32813-8405

3.0 Site Location

See Figure 1.

4.0 Date of Closure

18 November 1996

5.0 Tank Status

There was one 150 gallon underground storage tank (UST) removed from the west side of Building 7107 by the Public Works Center (PWC) as depicted by Figure 3. A photograph of the removal is provided in Attachment A. The UST was emptied prior to commencement of work by International Oil Service. The UST was completely decontaminated and rendered unuseable by PWC. The UST was properly disposed by the Defense Reutilization and Marketing Office (DRMO).

6.0 Tank Contents

Diesel

7.0 Tank Condition

The UST was in good condition at the time of removal.

8.0 Tank Area

The size of the excavation was approximately four (4) feet wide by six (6) feet long and six (6) feet deep. The excavation was filled with clean fill and compacted to grade.

There was contaminated soil encountered during the excavation. The contaminated soil was properly disposed by C. A. Meyers, Inc.

9.0 Soil Screening

- Six (6) soil samples were collected for headspace screening with an organic vapor analyzer (OVA) The samples were extracted at each corner of the UST as shown on Figure 3.
- The soil screening was conducted in accordance with the headspace screening criteria in Chapter 62-770 FAC and PWC's Comprehensive Quality Assurance Plan.

10.0 Groundwater Analysis

There was no groundwater analysis performed at this site.

11.0 Conclusions

The site is contaminated.

12.0 Recommendations

A Contamination Assessment Report (CAR) should be initiated.

13.0 Closure Assessment

Performed by the Public Works Center (PWC) Pensacola, Florida.

14.0 Project Manager

Mr. Paul Semmes, P.E.

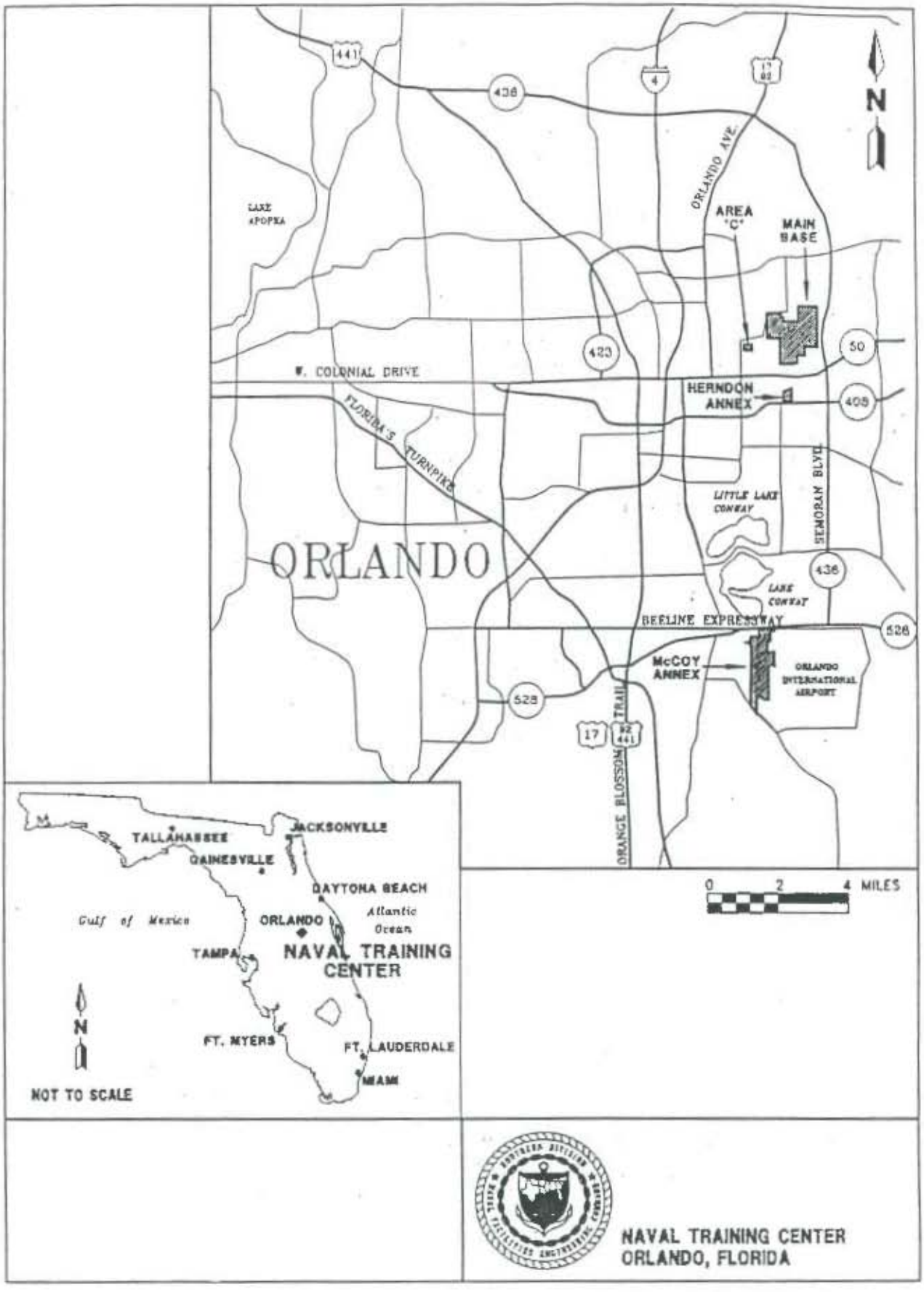
15.0 Project Number

1305016

16.0 Report Date

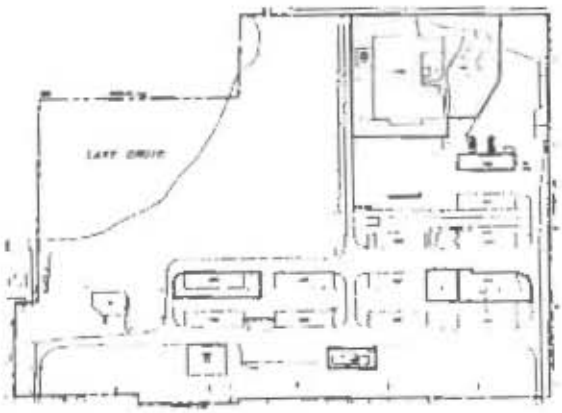
28 February 1997

Figures

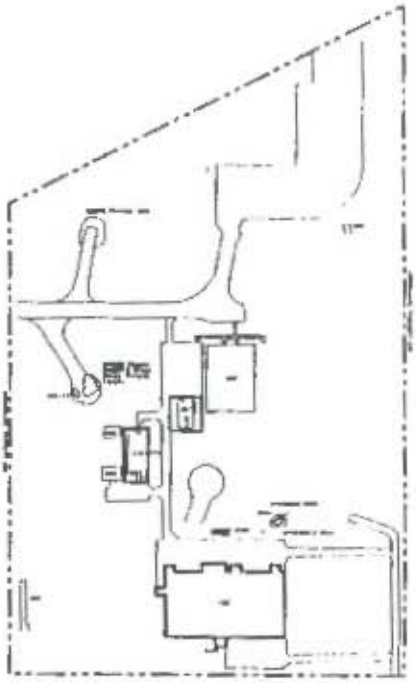


NAVAL TRAINING CENTER
ORLANDO, FLORIDA

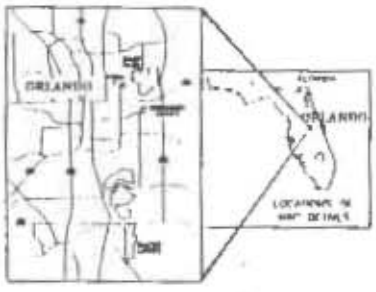
NAVAL TRAINING CENTER
McCOY ANNEX



NAVAL TRAINING CENTER
AREA C



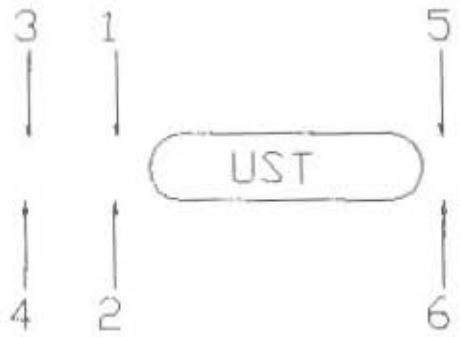
NAVAL TRAINING CENTER
HERNDON ANNEX

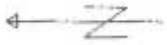


BLDG 7107

OVA READINGS

1- 2' BLS, 997 PPM
2- 2' BLS, 537 PPM
3- 3' BLS, 187 PPM
4- 3' BLS, 4226 PPM
5- 2' BLS, 8181 PPM
6- 2' BLS, 8146 PPM





JOB: BLDG 7107	DEPARTMENT OF THE NAVY, NAVAL FACILITIES ENGINEERING COMMAND NAVY PUBLIC WORKS CENTER NAVAL AIR STATION PENSACOLA, FLORIDA
DESIGNED DRAWN CHECKED DIV. ENG. LDG. DIV. ENG. ENVIRONMENTAL DEPT. HD. APPROVED DATE	NAVAL TRAINING CENTER NTC ORLANDO, McCOY ANNEX ORLANDO, FLORIDA
ENVIRONMENTAL DEPARTMENT APPROVED DATE	SIZE: D; CODE IDENT. NO.: 900; ENVIRON. DEPT. NO.; PWC. DRAWING NO
PAUL R. TENNER, P.E.	SCALE AS SHOWN; SPEC; SHEET 1 OF 1

Attachments

APPLICATION FOR CLOSURE OF POLLUTANT STORAGE TANK SYSTEM

Provide the facility information requested below.

FDEP Facility #_____ Facility Name U. S. Navy

Facility Location McCoy Annex, Building 7107

Property Owner Commander, Naval Training Center

Property Owner Address Code 010E, 1350 Grace Hopper Ave, Orlando, FL 32813-8405

Phone (407) 646-4663

Method of Tank Closure Removal

Pollutant Storage Systems Specialty Contractor (PSSSC) who will be on site supervising closure activities. Attach copy of PSSSC license.

Individual Licensed as PSSSC N/A PSSSC # N/A

Firm U.S. Navy - Public Works Center (PWC)

Address 310 John Tower Road, Pensacola, FL 32508

Indicate the firm (s) that will degas, remove, and transport the tank(s), and the method of degassification.

Degassification Method Air Eduction

Firm Removing Tanks U.S. Navy - Public Works Center (PWC)

Contact Mr. Paul Semmes, P.E Phone (904) 293-0635

Firm Transporting Tanks U. S. Navy - Public Works Center (PWC)

Contact Mr. Paul Semmes, P.E Phone (904) 293-0635

Firm Receiving Tanks for Ultimate Disposal U.S. Navy - DRMO

Contact Mr. Edward Walker Phone (407) 646-4420

Indicate the laboratory that will conduct groundwater analysis.

Contracted Laboratory U S Navy - PWC Phone (904) 452-4728

Contact Mr. Joe Moore FDEP QA/QC 920121G

Indicate firm(s) transporting and disposing of contaminated soils.

Firm Transporting Soils C. A. Meyer

Contact Mr. Frank Cox Phone (407) 849-0770

Firm Remediating/Disposing Soils C. A. Meyers

Contact Mr. Frank Cox Phone

Disposal/Remediation Method Thermal Treatment

Indicate the firm(s) that will transport and ultimately dispose of residual product and sludge from the tanks.

Firm Transporting Residual Product and Sludge International Oil Service

Contact Mr. Garry Allen Phone (800) 282-9585

Firm Receiving/Disposal Residual Product and Sludge International Oil Service

Contact Mr. Garry Allen Phone (800) 282-9585

Indicate the firm and names of personnel that will conduct field sampling.

Contracted Firm U.S. Navy - Public Works Center (PWC)

Contact Mr. Paul Semmes, P.E. Phone (904) 293-6800

Person (s) Sampling Mr. Paul Semmes, P.E.

Equipment used for soil screening (Specific Make and Model) Organic Vapor Analyzer

(OVA) Thermo Environmental (680 HVM) equipped w/Flame Ionization Detector (FID).

Florida Department of Environmental Protection
Twin Towers Office Bldg ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Underground Storage Tank Installation
Form The Removal Form for Certified Contractors
Effective Date: December 18, 1990
DEP Application No.
(Filled in by DEP)

Underground Storage Tank Installation and Removal Form For Certified Contractors

ollutant Storage Systems Contractor as defined in Section 489.105, Florida Statutes (certified contractors as defined in Section 62-761.200, Florida Administrative Code) shall use this form to certify that the installation, replacement or removal of the storage tank system(s) located at the address listed below was performed in accordance with Department Reference Standards.

General Facility Information

1. DEP Facility Identification No.: _____
2. Facility Name: US Navy-Naval Training Ctr Telephone: (407) 646-4663
3. Street Address (physical location): Building 7107, Naval Training Center (McCoy Annex)
4. Owner Name: Commander Naval Training Ctr Telephone: (407) 646-4663
5. Owner Address: Code 010E, 1350 Grace Hopper Avenue, Orlando, Florida 32813-8405
6. Number of Tanks: a. Installed at this time _____ b. Removed at this time One (1)
7. Tank(s) Manufactured by: Unknown
8. Date Work Initiated: 18 November 1996 9. Date Work Completed: 18 November 1996

Underground Pollutant Tank Installation Checklist

Please certify the completion of the following installation requirements by placing an (X) in the appropriate box.

1. The tanks and piping are corrosion resistant and approved for use by State and Federal Laws. ☐
2. Excavation, backfill and compaction completed in accordance with NFPA (National Fire Protection Association) 30(96), API (American Petroleum Institute) 1615, PEI (Petroleum Equipment Institute) RP100-94 and the manufacturers' specifications. ☐
3. Tanks and piping pretested and installed in accordance with NFPA 30(96), API 1615, PEI/RP100-94 and the manufacturers' specifications. ☐
4. Steel tanks and piping are cathodically protected in accordance with NFPA 30(96), API 1632, UL (Underwriters Laboratory) 1746, STI (Steel Tank Institute) R892-89 and the manufacturers' specifications. ☐
5. Tanks and piping tested for tightness after installation in accordance with NFPA 30(96) and PEI RP100-94. ☐
6. Monitoring well(s) or other leak detection devices installed and tested in accordance with Section 62-761.640, Florida Administrative Code (F.A.C.) ☐
7. Spill and overfill protection devices installed in accordance with Section 62-761.500, F.A.C. ☐
8. Secondary containment installed for tanks and piping as applicable in accordance with Section 62-761.500, F.A.C. ☐

Please Note: The numbers following the abbreviations (e.g. API 1615) are publication or specification numbers issued by these institutions.

Underground Pollutant Tank Removal Checklist

1. Closure assessment performed in accordance with Section 62-761.800, F.A.C. ☒
2. Underground tank removed and disposed of as specified in API 1604 in accordance with Section 62-761.800, F.A.C. ☒

Florida Department of Environmental Protection
Twin Towers Office Bldg ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

DEP Form # 62-761.900(3)
Form Title: Closure Assessment Form
Effective Date: December 12, 1996
DEP Application No. _____
(Filled in by DEP)

Closure Assessment Form

ners of storage tank systems that are replacing, removing or closing in place storage tanks shall use this form to demonstrate that a storage ystem closure assessment was performed in accordance with Rule 62-761.800(3) or 62-762.800(3), Florida Administrative Code.

Please Print or Type
Complete All Applicable Blanks

1. Date 24 February 1997
2. DEP Facility ID Number: _____ 3. County Orange
4. Facility Name: US Navy - Naval Training Center (McCoy Annex)
5. Facility Owner: Commander - Naval Training Center (Code 010E)
6. Facility Address: Building 7107 (McCoy Annex)
7. Mailing Address: 1350 Grace Hopper Avenue, Orlando, Florida 32813-8405
8. Telephone Number: (407) 646-4663 9. Facility Operator: Mr. Mark Zill
10. Are the Storage Tank(s): **(Circle one or both)** A. Aboveground or (B.) Underground
11. Type of Product(s) Stored: Diesel
12. Were the Tank(s): **(Circle one)** A. Replaced (B.) Removed C. Closed in Place D. Upgraded (aboveground tanks only)
13. Number of Tanks closed: One 14. Age of Tanks: Unknown

Facility Assessment Information

Yes	No	Not Applicable		
☒	☐		1.	Was a Discharge Reporting Form submitted to the Department? If yes, When: 11/20/96 Where: OCHD
☒	☐		2.	Is the depth to ground water less than 20 feet?
☐	■	☐	3.	Are monitoring wells present around the storage system? If yes, please specify ☐ Vapor Monitoring ☐ Water Monitoring
☐	☒	☐	4.	Is there free product present in the monitoring wells or within the excavation?
☐	☐	☒	5.	Were the petroleum hydrocarbon vapor levels in the soil greater than 500 parts per million for gasoline? Specify sample type: ☐ Vapor Monitoring wells ☐ Soil sample(s)
■	☐	☐	6.	Were the petroleum hydrocarbon vapor levels in the soils greater than 50 parts per million for diesel/kerosene? Specify sample type: ☐ Vapor Monitoring wells ☒ Soil sample(s)
☐	☐	☒	7.	Were the analytical laboratory results of the ground water sample(s) greater than the allowable state target levels? (See target levels on reverse side of this form and supply laboratory data sheet(s).
☐	☐	☒	8.	If a used oil storage system, did a visual inspection detect any discolored soil indicating a release?
☐	☒	☐	9.	Are any potable wells located within 1/4 of a mile radius of the facility?
☐	☒	☐	10.	Is there a surface water body within 1/4 mile radius of the site? If yes, indicate distance: _____
☒	☐	☐	11.	A detailed drawing or sketch of the facility that includes the storage system location, monitoring wells, buildings, storm drains, sample locations, and dispenser locations must accompany this form.
☐	☐	☒	12.	If a facility has a pollutant storage tank system that has both gasoline and kerosine/diesel stored on site, both EPA method 602 and EPA method 610 must be performed on the ground water samples.

Summary of OVA Readings

Closure Assessment Report
Underground Storage Tank
Building 7107
Naval Training Center
McCoy Annex
Orlando, Florida

Hand Auger Sample No.	Depth (Feet)	Unfiltered (ppm)	Filtered (ppm)
SS-1	2	997	<1
SS-2	2	537	<1
SS-3	3	187	<1
SS-4	3	4226	<1
SS-5	2	8181	<1
SS-6	2	8146	<1

Readings for unfiltered samples are total hydrocarbon readings including methane. readings for filtered samples are methane only.

Notes: ppm = parts per million.

@430.00 TANK

DOC IDENT	FROM	BLOCK NUMBER	QUANTITY	UNIT OF ISSUE	DOCUMENT NUMBER	SUPPLEMENTARY ADDRESS	FUND	DISTN/DIVISION	PROJECT	PRI/CNTY	REQUISITION DEL DATE	ADVICE	2ND PRICE DOLLARS	CTS
A5J063S	9670	00SCRAP (X145.00 TANK)	FA2003	N65928	6325 0550		2S	S/B/TL	N/A	MFX			100	00

SHIPPED FROM	SHIP TO	MARK FOR	PROJECT	TOTAL PRICE DOLLARS	CTS
PUBLIC WORKS DEPARTMENT NTC 0101C BLDG 2025 ORLANDO FL 32813-8405	DRMO SY 2354 Orlando Fl. ~~BLDG 1391~~ ~~PATRICK AFB FL~~ 32926	HM HW	SCRAP METAL	$10000.00 3100 00 $320000.00	

WAREHOUSE LOCATION	TYPE OF CARGO	UNIT PACK	UNIT WEIGHT	UNIT CUBE	U.F.C.	N.M.F.C.	FREIGHT RATE	DOCUMENT DATE	MAT CONG	QUANTITY
	AA	1	771404.82	M4 250	065928	D 068566	2D 63250550	110555	065928	7-18-0700

SUBSTITUTE DATA (ITEM ORIGINALLY REQUESTED)

FREIGHT CLASSIFICATION NOMENCLATURE
SCRAP METAL, PETROLEUM PRODUCT STORAGE TANKS AND PIPING

ITEM NOMENCLATURE
TANKS WERE STEAM CLEANED AND TRIPLE RINSED

SELECTED BY AND DATE
TANK ENDS REMOVED TO PREVENT REUSE AS STORAGE TANK

TYPE OF CONTAINER(S)

TOTAL WEIGHT
Est 23000

NO OF CONTAINER(S)

TOTAL CUBE

Tanks removed: 109-4, [illegible], 131, 208, 218-B 304, 310, 311, 313, 2005, 2049, 2409, 2411, 2421, 2426, 7107, 7121, 7121-A, -B, 7125-A, -B 7180, 7184-A, 7203, -A, 7234, 7239-A, 7241-1 2, 5, 7246, 7264, BV-2

RECEIVED BY AND DATE
11-25-96
Willie Martin

WAREHOUSED BY AND DATE
TC 12-2-96

PACKAGED IN ACCORDANCE WITH DOT 49 CFR 170-189
Mark Zill
MARK S. ZILL
ENVIRONMENTAL MANAGEMENT

INSPECTED BY AND DATE
12-2-96
Thomas Powell

PREVIOUS LOCATION
HZBLD7182 HZBLD1104
HZBLD2816 HZBLDG137 A
SCLEIC2
Col 6 yrs 00
Edward H Walker
EDWARD H. WALKER
PROPERTY MANAGEMENT

DATE SHIPPED

TRANSPORTATION CHARGEABLE TO

BL/AWB, AWR, OR RECEIVER'S SIGNATURE (AND DATE)

RECEIVER'S DOCUMENT NUMBER
*DPQ2*AWHXP*

DD FORM 1348-1, JUL 91 PREVIOUS EDITION MAY BE USED DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT

2

INTERNATIONAL OIL SERVICE

TRANSPORTATION AND
RECEIVING MANIFEST

DIV. OF INTERNATIONAL PETROLEUM CORP.
STATE CERTIFIED RECYCLER, TRANSPORTER AND COLLECTION FACILITY

EPA I.D. No. FLD 065680613
SO 29-181143

LAD 092098106

MOD 981114051
LA I.D. No. GT—186

☐ PLANT CITY, FL 33566
105 S. ALEXANDER ST.
(813) 754-1504
TAMPA, FL
(813) 229-1739
(800) 282-9585
FAX 1 (813) 754-3789

☐ WILMINGTON, DE 19801
505 S. MARKET ST.
(302) 421-9307

RECYCLING
- USED OIL
- USED OIL FILTERS
- USED ANTIFREEZE
- PETROLEUM CONTACT WATER

Recycling today for a better tomorrow.

☐ NEW ORLEANS, LA 70129
14890 INTRACOASTAL DR.
(504) 254-9021
(800) 523-9071

☐ BALTIMORE, MD 21224
6305 E. LOMBARD ST.
(800) 222-2511

IDENTIFICATION

GENERATOR/SHIPPER — Date Shipped 11-15-96

ADDRESS — Time OIC

CITY — STATE — ZIP — Phone

PO# 3870 Confirm Call

INFORMATION

SOURCE TYPE	DESCRIPTION AND CLASSIFICATION Proper Shipping Name, Class and Identification Number C.F.R. 172.101, 172.202, 172.203	UN No. or NA No.	EXEMPTION OR NO LABELS REQUIRED	FLASH POINT (PMCC) WHEN REQ'D
CO/A	(Used Oil) Fuel Oil Combustible Liquid Packaging Group III	1993	49CFR 173.500	> 60°

SPECIAL HANDLING INSTRUCTIONS
END USE CODE MINI/SR

EMERGENCY RESPONSE NUMBER
1-800-282-9585

CERTIFICATION

This is to certify under penalty of law that the above-named materials have not been mixed with hazardous waste and are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the U.S. Environmental Protection Agency.

X _____ / _____
GENERATOR'S SIGNATURE / DATE

_____
TRANSPORTER No. 1 SIGNATURE & DATE

_____
SIGNATURE / DATE

GROSS GALLONS
DEDUCTIONS
NET GALLONS
PRICE PER GALLON
FREIGHT
TOTAL

☐ CASH ☐ CHARGE (INVOICE TO FOLLOW)

96-PC 16276

MANIFEST DOCUMENT NO.

White - Original Yellow - Receiving Facility Pink - Transporter Gr'nd - Generator

prestige printing co 2004R 10/95 25261-AO

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
Not Required*		

GENERATOR

3. Generator's Name and Mailing Address
COMMANDER NAVAL TRAINING CENTER
CODE 0108 ATTN: MARK ZILL
1350 GRACE HOPPER AVE
ORLANDO FL 32813

4. Generator's Phone (407) 646-4663

LOAD # 04

5. Transporter 1 Company Name: C.A. MEYER
6. US EPA ID Number: Not Required*

TRUCK # 277

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
C.A. MEYER PAVING & CONSTRUCTION CO.
14023 Tiny Morse Blvd.
Clermont, Florida 32711

10. US EPA ID Number: Not Required*

A. Transporter's Phone 407 849 0770
B. Transporter's Phone
C. Facility's Phone (407) 877-3777

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-Hazardous Petroleum Contaminated Soil	1	TRK		
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
*US EPA ID# Not Required. Non-Hazardous Waste

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Transporter hereby certifies that all of the material in this load was placed on my truck at the address referenced above. Nothing has been added to this load after departure from address listed above.

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste

Printed/Typed Name	Signature	Month	Day	Year
M. Zill				

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR'S COPY

CERTIFICATE
OF
DECONTAMINATION

It is hereby certified that the following Storage Tanks have been decontaminated by PWC Pensacola AST/UST Storage System Tank Team:

NTC ORLANDO

BLDG 109	BLDG 208
BLDG 218	BLDG 304
BLDG 311	BLDG310
BLDG 313	BLDG 2005
BLDG 2049	BLDG 2409
BLDG 2411	BLDG 2426
BLDG 2421	BLDG 131

McCOY ANNEX

BLDG 7264	BLDG 7239-A
BLDG 7185 - 1,2	
BLDG 7121 - 1,2,3,4	
BLDG 7241 - 1,2,3	
BLDG 7246	BLDG 7180
BLDG 7203	BLDG 7203-A
BLDG 7125	BLDG 7125-A
BLDG 7234	BLDG 7107

The Storage Tanks listed above have been triple rinsed and cleaned in accordance with **40 CFR 261.7(b)(3)(i)** and have been rendered unuseable.

Signature

ENVIRONMENTAL ENGINEER
Title

2/28/07
Date

APPENDIX C

WELL COMPLETION LOGS

WELL COMPLETION LOG

Water Mgmt. Dist.: South Florida
Permit Number:

Work Order: 6256
Type of Well: Monitoring
Well Number: 7107 MW1
Method Used: 4.25 HSA
Borehole Dia.: 8"

Site Information:
Name: NTC
Address: McCoy Annex Bldg 7107
C,S,Z: Orlando, Florida
S/T/R:

Client / Consultant Information
Consultant: ABB Environmental Services, Inc.
Field Rep: Scott Donelick

Well Diameter	Well Type	Well Depth	Screen Length	Casing Length	Bags Grout	Sand Bags/Weight	Filter Type	Well Seal
2"	PVC	12	10	2	0.5	9x50lb.	20/30	Fine Sand
40 ←	Schedule	Slot Size: →	.010		0.5	← Feet →	10.5	0.5

Surface Completion
8" Flush

Surface Casing

Diameter:	
Type:	
Schedule:	
Depth:	

Intermediate Casing

Diameter:	
Type:	
Schedule:	
Depth:	

Well Casing

Diameter:	2"	
Type:	PVC	
Schedule:	40	
Length	2	Ft.

Grout Seal

Type:	II Portland	
Feet:	0.5	
Amount:	0.5	Bags

Well Seal

Type:	Fine Sand
Feet:	0.5

Well Screen

Diameter:	2"	
Type:	PVC	
Slot:	.010	
Length:	10	Ft.

Filter Pack

Type:	20/30
Feet:	10.5
No. of Bags:	9x50lb.

Sump

Length:	0'

Well Development

Water Level:	4'		
Method:	Centrifugal		
Start: →	Cloudy	Finish: →	Clear
Time:	30 Min.		
GPM:	2		

Contractor Information

Contractor #:	2633
Completion:	09/19/97
Driller:	Charles Bucher
Lead Hand:	Paul Hossler
3rd Man:	Ray Patterson
Drill Rig:	B-59

Company: Groundwater Protection, Inc.
Address: 4315 S.W. 34th Street
C,S,Z: Orlando, Florida 32811
Phone/FAX: (407) 426-7885 / (407) 426-7586

WELL COMPLETION LOG

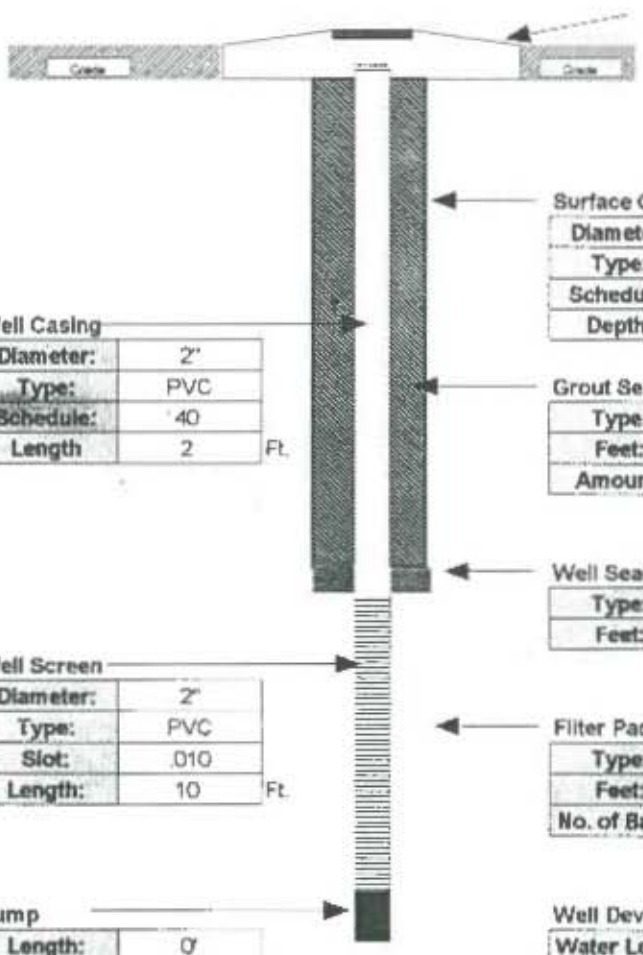
Water Mgmt. Dist.: South Florida
Permit Number:

Work Order: 6240
Type of Well: Monitoring
Well Number: 7107 MW3
Method Used: 4.25 HSA
Borehole Dia.: 8"

Site Information:
Name: NTC
Address: McCoy Annex, Bldg 7107
C,S,Z: Orlando, Florida
S/T/R:

Client / Consultant Information
Consultant: ABB Environmental Services, Inc.
Field Rep: Scott Donelick

Well Diameter	Well Type	Well Depth	Screen Length	Casing Length	Bags Grout	Sand Bags/Weight	Filter Type	Well Seal
2"	PVC	12	10	2	0.5	9x50lb.	20/30	Fine Sand
40 ←	Schedule	Slot Size: ►	010		0.5	← Feet →	10.5	0.5



Surface Completion
8" Flush

Surface Casing

Diameter:	
Type:	
Schedule:	
Depth:	

Intermediate Casing

Diameter:	
Type:	
Schedule:	
Depth:	

Well Casing

Diameter:	2"
Type:	PVC
Schedule:	40
Length	2 Ft.

Grout Seal

Type:	II Portland
Feet:	0.5
Amount:	0.5 Bags

Well Seal

Type:	Fine Sand
Feet:	0.5

Well Screen

Diameter:	2"
Type:	PVC
Slot:	.010
Length:	10 Ft.

Filter Pack

Type:	20/30
Feet:	10.5
No. of Bags:	9x50lb.

Sump

Length:	0'

Well Development

Water Level:	4'		
Method:	Centrifugal		
Start: ►	Cloudy	Finish: ►	Clear
Time:	30 Min.		
GPM:	2		

Contractor Information

Contractor #:	2638
Completion:	08/14/97
Driller:	Charles Bucher
Lead Hand:	Otis Johnson
3rd Man:	Bill Hammond
Drill Rig:	B-59

Company: Groundwater Protection, Inc.
Address: 4315 S.W. 34th Street
C,S,Z: Orlando, Florida 32811
Phone/FAX: (407) 426-7885 / (407) 426-7586

APPENDIX D

LITHOLOGIC LOGS

TITLE: NTC, ORLANDO	LOG of WELL: MW-1	BORING NO. NA
CLIENT: U.S. NAVY, SOUTHNAVFACENGCOM		PROJECT NO: 2547.05
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 9/19/97	COMPLTD: 9/19/97
METHOD: 4.25-INCH ID HSA	CASE SIZE: 2-INCH	SCREEN INT.: 3-13 FEET
PROTECTION LEVEL: D		
TOC ELEV.: NM FEET.	MONITOR INST.: OVA	TOT DPTH: 13 FEET.
DPTH TO 14 FEET.		
LOGGED BY: S. DONELICK	WELL DEVELOPMENT DATE: 9/19/97	SITE: BUILDING 2107

DEPTH FT	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				<1	0-5 Fill material SAND, fine-grained, brown, no odor		SP		
5				<1	5-13 SAND, fine-grained, dark brown, possible odor, saturated		SP		
10									
15									
20									

ABB ENVIRONMENTAL SERVICES, INC.

TITLE: NTC, ORLANDO	LOG of WELL: MW-3	BORING NO. NA
CLIENT: U.S. NAVY, SOUTHNAVFACENGCOM		PROJECT NO: 2542.05
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 5/14/97	COMPLTD: 5/14/97
METHOD: -INCH ID HSA	CASE SIZE: 2-INCH	SCREEN INT.: 2-12 FEET
TOC ELEV.: NM FEET.	MONITOR INST.: OVA	TOT DPTH: 12 FEET.
LOGGED BY: S. DONELICK	WELL DEVELOPMENT DATE: 5/14/97	SITE: BUILDING 3107

DEPTH FT	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				<1	0-5 SAND, fine grained, light gray to black, no odor, wet at 1.5 feet BLS		SP		
5				<1	5-12 SAND, fine grained, dark brown to black, no odor		SP		
10									
15									
20									

ABB ENVIRONMENTAL SERVICES, INC.

APPENDIX E

SOIL LABORATORY ANALYTICAL REPORTS

Lab Sample Number:		S775890*1				S775890*2		
Site		7107				7107		
Locator		071SS101				071SS201		
Collect Date:		14-OCT-97				14-OCT-97		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
EPA 601/602								
Chloromethane	-				-			
Bromomethane	-				-			
Dichlorodifluoromethane	-				-			
Vinyl chloride	-				-			
Chloroethane	-				-			
Methylene chloride	-				-			
Trichlorofluoromethane	-				-			
1,1-Dichloroethene	-				-			
1,1-Dichloroethane	-				-			
Cis/Trans-1,2-Dichloroethene	-				-			
Chloroform	-				-			
1,2-Dichloroethane	-				-			
1,1,1-Trichloroethane	-				-			
Carbon tetrachloride	-				-			
Bromodichloromethane	-				-			
1,2-Dichloropropane	-				-			
cis-1,3-Dichloropropene	-				-			
Trichloroethene	-				-			
Dibromochloromethane	-				-			
1,1,2-Trichloroethane	-				-			
trans-1,3-Dichloropropene	-				-			
Bromoform	-				-			
1,1,2,2-Tetrachloroethane	-				-			
Tetrachloroethene	-				-			
Chlorobenzene	-				-			
1,3-Dichlorobenzene	-				-			
1,2-Dichlorobenzene	-				-			
1,4-Dichlorobenzene	-				-			
Chlorobenzene	-				-			
PNA COMPOS								
Naphthalene	5500		ug/kg	330	350	U	ug/kg	350
2-Methylnaphthalene	5300		ug/kg	330	350	U	ug/kg	350
1-Methylnaphthalene	3100		ug/kg	330	350	U	ug/kg	350
Acenaphthylene	720	U	ug/kg	720	350	U	ug/kg	350
Acenaphthene	720	U	ug/kg	720	350	U	ug/kg	350
Fluorene	720	U	ug/kg	720	350	U	ug/kg	350
Phenanthrene + Anthracene	720	U	ug/kg	720	350	U	ug/kg	350
Fluoranthene	720	U	ug/kg	720	350	U	ug/kg	350
Pyrene	720	U	ug/kg	720	350	U	ug/kg	350
Chrysene + Benzo(a)anthracene	720	U	ug/kg	720	350	U	ug/kg	350
Benzo (b) fluoranthene	-				-			
Benzo (k) fluoranthene	-				-			
Benzo (a) pyrene	720	U	ug/kg	720	350	U	ug/kg	350
Indeno(1,2,3-Cd)Pyrene+Dibenzo	720	U	ug/kg	720	350	U	ug/kg	350
Benzo (g,h,i) perylene	720	U	ug/kg	720	350	U	ug/kg	350
Benzo (b,k) fluoranthene	720	U	ug/kg	720	350	U	ug/kg	350
LEAD								
Lead	-				-			

NTC Orlando . .ding 7107
Soil Laboratory Analytical Reports ----- HITS TABLE -----

Lab Sample Number:		S775890*1				S775890*2		
Site		7107				7107		
Locator		071SS101				071SS201		
Collect Date:		14-OCT-97				14-OCT-97		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PNA COMPDS								
Naphthalene	5500		ug/kg	330		- U	ug/kg	350
2-Methylnaphthalene	5300		ug/kg	330		- U	ug/kg	350
1-Methylnaphthalene	3100		ug/kg	330		- U	ug/kg	350
Flo Pro								
Petroleum Range Organics (Fl-P	430		mg/kg	10	34		mg/kg	10
Purgeable Aromatics								
Ethylbenzene	1900		ug/kg	5		- U	ug/kg	5.4
Xylenes (total)	52000		ug/kg	5		- U	ug/kg	5.4

NTC ORLANDO BUILDING 7107

GROUNDWATER SUMMARY				
Lab Sample Number	75503-1	75503-2	75503-3	75503-4
Site	7107	7107	7107	7107
Locator	071RB101/7107 RB-1	071GM101/7107 MW-1	071GM201/7107 MW-2	071GM301/7107 MW-3
Collect Date	9/29/97	9/29/97	9/29/97	9/29/97

SOIL SUMMARY		
Lab Sample Number	75890-1	75890-2
Site	7107	7107
Locator	071SS101	071SS201
Collect Date	10/14/97	10/14/97

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-75890
Received: 16 OCT 97
Reported: 05 NOV 97
S7ABORQC
Client PO. No.: NE753107G

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/SDG#ABOR05
Sampled By: Client
Code: 14167115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	DATE/ TIME SAMPLED	SDG#
75890-1	071SS101	10-14-97/1414	ABOR05
75890-2	071SS201	10-14-97/1459	ABOR05

PARAMETER	75890-1	75890-2
Purgeable Aromatics (8020)		
Benzene, ug/kg dw	430U	5.4U
Toluene, ug/kg dw	430U	5.4U
Ethylbenzene, ug/kg dw	1900	5.4U
Total Xylenes, ug/kg dw	52000	5.4U
Methyl tert-butyl ether (MTBE), ug/kg dw	4300U	54U
Surrogate - a,a,a-Trifluorotoluene	115 %	94 %
Date Analyzed	10.23.97	10.24.97
Dilution factor	80.0	1.0
Batch ID	1023C	1024A
Clock ID	1A1023	1A1024

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-75890
Received: 16 OCT 97
Reported: 05 NOV 97
S7ABORQC
Client PO. No.: NE753107G

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/SDG#ABOR05
Sampled By: Client
Code: 14167115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	DATE/ TIME SAMPLED	SDG#
75890-1	071SS101	10-14-97/1414	ABOR05
75890-2	071SS201	10-14-97/1459	ABOR05

PARAMETER	75890-1	75890-2			
Polynuclear Aromatics (8100)					
Acenaphthene, ug/kg dw	720U	350U			
Acenaphthylene, ug/kg dw	720U	350U			
Benzo(a)pyrene, ug/kg dw	720U	350U			
Benzo(g,h,i)perylene, ug/kg dw	720U	350U			
Benzo(b,k)fluoranthene, ug/kg dw	720U	350U			
Chrysene + Benzo(a)anthracene, ug/kg dw	720U	350U			
Fluoranthene, ug/kg dw	720U	350U			
Fluorene, ug/kg dw	720U	350U			
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthracene, ug/kg dw	720U	350U			
Naphthalene, ug/kg dw	5500	350U			
Phenanthrene + Anthracene, ug/kg dw	720U	350U			
Pyrene, ug/kg dw	720U	350U			
1-Methylnaphthalene, ug/kg dw	3100	350U			
2-Methylnaphthalene, ug/kg dw	5300	350U			
Initial Volume/Weight	30	30			
Final Extraction Volume (FV1)	1.0	1.0			
Surrogate - 2-Fluorobiphenyl	72 %	56 %			
Dilution factor	2.0	1.0			
Date Extracted	10.21.97	10.21.97			
Date Analyzed	10.27.97	10.27.97			
Batch ID	1021V	1021V			
Instrument ID	SGSFID	SGSFID			

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-75890
Received: 16 OCT 97
Reported: 05 NOV 97
S7ABORQC

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G
Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/SDG#ABOR05
Sampled By: Client
Code: 14167115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES	DATE/ TIME SAMPLED	SDG#
75890-1	071SS101	10-14-97/1414	ABOR05
75890-2	071SS201	10-14-97/1459	ABOR05

PARAMETER	75890-1	75890-2
Petroleum Range Organics (FL-PRO)		
Petroleum Range Organics (FL-PRO), mg/kg dw	430	34
Initial Volume/Weight	30	30
Final Extraction Volume (FV1)	2.0	2.0
Surrogate - O-Terphenyl (OTP)	X	84 %
Dilution factor	10	1.0
Date Extracted	10.24.97	10.24.97
Date Analyzed	10.29.97	10.28.97
Batch ID	1024V	1024V
Percent Solids (160.3), %	92	93

Methods: EPA SW-846
X = Due to dilution required prior to analysis surrogates were diluted below the level of detection.

Linda A. Wolfe

Linda A. Wolfe, Project Manager

Final Page Of Report

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-ABOR05
Received: 16 OCT 97
Reported: 05 NOV 97

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/SDG#ABOR05
Sampled By: Client
Code: 13597115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID	SDG#
ABOR05-1	Method Blank	ABOR05
ABOR05-3	Method Blank	ABOR05

PARAMETER	ABOR05-1	ABOR05-3
Purgeable Aromatics (8020)		
Benzene, ug/kg dw	5.0U	400U
Toluene, ug/kg dw	5.0U	400U
Ethylbenzene, ug/kg dw	5.0U	400U
Total Xylenes, ug/kg dw	5.0U	400U
Methyl tert-butyl ether (MTBE), ug/kg dw	50U	4000U
Surrogate - a,a,a-Trifluorotoluene	100 %	83 %
Date Analyzed	10.24.97	10.23.97
Dilution factor	1.0	80.0
Batch ID	1024A	1023C
Clock ID	1A1024	1A1023

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-ABOR05
Received: 16 OCT 97
Reported: 05 NOV 97

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/SDG#ABOR05
Sampled By: Client
Code: 13597115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID	SDG#
ABOR05-1	Method Blank	ABOR05
ABOR05-3	Method Blank	ABOR05

PARAMETER	ABOR05-1	ABOR05-3
Petroleum Range Organics (FL-PRO)		
Petroleum Range Organics (FL-PRO), mg/kg dw	10U	---
Surrogate - O-Terphenyl (OTP)	48 %	---
Dilution factor	1.0	---
Date Extracted	10.24.97	---
Date Analyzed	10.25.97	---
Batch ID	1024V	---

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-ABOR05
Received: 26 OCT 97
Reported: 05 NOV 97

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/SDG#ABOR05
Sampled By: Client
Code: 13597115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID	SDG#
ABOR05-2	Lab Control Standard % Recovery	ABOR05
ABOR05-4	Lab Control Standard % Recovery	ABOR05

PARAMETER	ABOR05-2	ABOR05-4
Purgeable Aromatics (8020)		
Benzene	120 %	96 %
Toluene	120 %	101 %
Surrogate - a,a,a-Trifluorotoluene	100 %	100 %
Date Analyzed	10.24.97	10.23.97
Dilution factor	1.0	80.0
Batch ID	1024A	1023C
Clock ID	1A1024	1A1023

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-ABOR05
Received: 16 OCT 97
Reported: 05 NOV 97

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/SDG#ABOR05
Sampled By: Client
Code: 13597115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID	SDG#
ABOR05-2	Lab Control Standard % Recovery	ABOR05
ABOR05-4	Lab Control Standard % Recovery	ABOR05

PARAMETER	ABOR05-2	ABOR05-4
Polynuclear Aromatics (8100)		
Acenaphthene	70 %	---
Acenaphthylene	70 %	---
Benzo(a)pyrene	65 %	---
Benzo(g,h,i)perylene	52 %	---
Benzo(b,k)fluoranthene	73 %	---
Chrysene + Benzo(a)anthracene	79 %	---
Fluoranthene	82 %	---
Fluorene	76 %	---
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthracene	52 %	---
Naphthalene	70 %	---
Phenanthrene + Anthracene	39 %	---
Pyrene	82 %	---
1-Methylnaphthalene	59 %	---
2-Methylnaphthalene	59 %	---
Surrogate - 2-Fluorobiphenyl	65 %	---
Dilution factor	1.0	---
Date Extracted	10.21.97	---
Date Analyzed	10.27.97	---
Batch ID	1021V	---
Instrument ID	SGSFID	---

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-ABOR05
Received: 16 OCT 97
Reported: 05 NOV 97

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: N2753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/SDG#ABOR05
Sampled By: Client
Code: 13597115

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR SOLID/SEMISOLID	SDG#
ABOR05-2	Lab Control Standard % Recovery	ABOR05
ABOR05-4	Lab Control Standard % Recovery	ABOR05

PARAMETER	ABOR05-2	ABOR05-4
Petroleum Range Organics (FL-PRO)		
Petroleum Range Organics (FL-PRO), %	65 %	---
Surrogate - O-Terphenyl (OTP)	107 %	---
Dilution factor	1.0	---
Date Extracted	10.24.97	---
Date Analyzed	10.26.97	---
Batch ID	1024V	---

Methods: EPA SW-846

Linda A. Wolfe

Linda A. Wolfe, Project Manager

Final Page Of Report

Chain of Custody Record

Quanterra Environmental Services

QUA-4124-1

Client	Project Manager	Date	Chain Of Custody Number
ABB Environmental Services	John Kaiser	10/14/97	52508
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
1080 Woodcock Rd Ste 100	(407) 895-8845	—	
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Orlando / FL / 32803	John Nash	Linda Wolfe	
Project Name	**Carrier/Waybill Number**		
NTC Orlando 02547.06	Fed Ex Airbill # 875741133 1		
Contract/Purchase Order/Quote No			
NE 753107 G			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	$ZnAc/NaOH$	Analysis: 8020	5100 + FL-PRO	Special Instructions/ Conditions of Receipt
07155101	10/14/97	14:14			X	2						1	1	OVA Reading >1000ppm
07155201	10/14/97	14:59			X	2						1	1	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: John Nash (John Nash)	10/15/97	09:00	1. Received By: S. Shamma S1-75870	10/16/97	9:47
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

FedEx. USA Airbill

Tracking Number 875741133157590

Recipient's Copy

75 200 14963181 6012M

1 From

Date: 10/15/97

Sender's Name: John Nash Phone: (407)-895-8845

Dept./Floor/Suite/Room:

Company: ABB ENVIRONMENTAL SVCS INC

Address: 1020 WOODCOCK RD STE 100

City: ORLANDO State: FL Zip: 32803

2 Your Internal Billing Reference Information: 02547.06

3 To

Recipient's Name: Sample Custody Phone: (912) 354-7858

Dept./Floor/Suite/Room:

Company: Savannah Labs

Address: 5102 La Roche Ave.

City: Savannah State: GA Zip: 31404

For HOLD at FedEx Location check here

☐ Hold Weekday ☐ Hold Saturday

For Saturday Delivery check here

☐

4 Service

☒ FedEx Priority Overnight ☐ FedEx Standard Overnight ☐ FedEx 2Day*

☐ FedEx Gnd. Overnight ☐ ☐

☐ FedEx Overnight Freight ☐ FedEx 2Day Freight

☐ NEW FedEx First Overnight

5 Packaging

☐ FedEx Letter* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other Packaging

6 Special Handling

Does this shipment contain dangerous goods? ☐ Yes ☐ No

☐ Dry Ice CA ☐ Cargo Aircraft Only

7 Payment

Bill to: ☒ Sender ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages: 1 Total Weight: 20 Total Declared Value: Total Charges:

CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Credit Card Auth #

8 Release Signature

232

FORM ID NO. 0200

WCBL 1193

PRINTED IN U.S.A.

APPENDIX F

WATER SAMPLING LOGS

FLORIDA

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date: September 27, 1997

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.:	WELL NO.: MW-1	SAMPLE ID: 071GM101	DATE: 9/29/97
SITE NAME: NTC Orlando, McCoy Annex	SITE LOCATION: Building 2107		

PURGE DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 12	DEPTH TO WATER (ft): 5.80	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH − DEPTH TO WATER) x WELL CAPACITY =

= (12 − 5.80) x 0.16 = 0.99

PURGE METHOD: Peristaltic Pump	PURGING INITIATED AT: 09:20	PURGING ENDED AT: 09:41
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal): 5

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
0	0	6.34	26.9	328		None	Clear	
1	1	6.32	27.1	335		↓	↓	
3	3	6.29	27.1	328				
5	5	6.28	27.2	330		↓	↓	

SAMPLING DATA

SAMPLED BY / AFFILIATION: Scott Donelick / ABB-ES	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Peristaltic Pump	SAMPLING INITIATED AT: 09:41	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y (N) | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
3	AG	40 mL	HCL	120	< 2	EPA 601/602 + MTBE
2	AG	1 L	—	2000	—	EPA 610
1	HDP	1 L	HNO_3	1000	< 2	EPA 239.2 Pb
3	AG	40 mL	—	120	—	EPA 504 EDB
2	AG	1 L	HCL	2000	< 2	FL-PRO

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

DEP Form # 62-"0.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date: September 23, 1997

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.:	WELL NO.: MW-2	SAMPLE ID: 021GM201	DATE: 9/19/97
SITE NAME: NTC Orlando Motor Annex	SITE LOCATION: Building 2107		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft):	DEPTH TO WATER (ft):	WELL CAPACITY (gal/ft):
2	12	5.72	0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH − DEPTH TO WATER) x WELL CAPACITY =

= (12 − 5.72) x 0.16 = 1.00

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
Peristaltic Pump	10:00	10:15

PURGE RATE (gpm):						TOTAL VOLUME PURGED (gal): 4			
WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
0	0	5.52	26.7	120		None	Clear	
1.5	1.5	5.66	26.3	123		↓	↓	
3	3	5.71	26.5	130				
4	4	5.71	26.5	130		↓	↓	

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
Scott Donelick / HBB-ES		
SAMPLING METHOD(S): Peristaltic Pump	SAMPLING INITIATED AT: 10:15	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
3	AG	40mL	HCL	120	<2	EPA 601/602 w MTBE
2	AG	1L	—	2000	—	EPA 610
1	HDP	1L	HNO_3	1000	<2	EPA 239.2 Pb
3	AG	40mL	—	120	—	EPA 504 EDB
2	AG	1L	HCL	2000	<2	FL-PRO

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date: September 23, 1997

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.:	WELL NO.: MW-3	SAMPLE ID: 071GM 301	DATE: 9/22/97
SITE NAME: NTC Orlando McCoy Annex	SITE LOCATION: Building 2107		

PURGE DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 12	DEPTH TO WATER (ft): 5.02	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY =

= (12 - 5.02) x 0.16 = 1.12

PURGE METHOD: Peristaltic Pump	PURGING INITIATED AT: 10:37	PURGING ENDED AT: 10:48
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal): 4.5

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
0	0	5.48	22.0	160		None	Clear	
2	2	5.52	22.2	159		↓	↓	
3	3	5.52	22.1	161				
4.5	4.5	5.48	22.0	162		↓	↓	

SAMPLING DATA

SAMPLED BY / AFFILIATION: Scott Pandick / ABB ES	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Peristaltic Pump	SAMPLING INITIATED AT: 10:48	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y (N) | FIELD-FILTERED: Y (N) | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
3	AG	40mL	HCL	120	<2	EPA 601/602 + MTBE
2	AG	1L	-	2000	-	EPA 610
1	HDP	1L	HNO_3	1000	<2	EPA 239.2 Pb
3	AG	40mL	-	120	-	EPA 504 EDB
2	AG	1L	HCL	2000	<2	FL-PRO

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

APPENDIX G

GROUNDWATER LABORATORY ANALYTICAL REPORTS

NTC Orlando . .ding 7107
--- Groundwater Laboratory Analytical Reports ---

Lab Sample Number:	S775503*1				S775503*2				S775503*3				S775503*4			
Site	7107				7107				7107				7107			
Locator	071R8101/7107 R8-1				071GM101/7107 MW-1				071GM201/7107 MW-2				071GM301/7107 MW-3			
Collect Date:	29-SEP-97				29-SEP-97				29-SEP-97				29-SEP-97			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
EPA 601/602																
Chloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromomethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dichlorodifluoromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Vinyl chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Methylene chloride	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Trichlorofluoromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Cis/Trans-1,2-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,3-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,4-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
PNA COMPDS																
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Phenanthrene + Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene + Benzo(a)anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	-				-				-				-			
Benzo (k) fluoranthene	-				-				-				-			
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno(1,2,3-Cd)Pyrene+Dibenzo	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b,k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
LEAD																
Lead	-				-				-				-			

NTC Orlando Building 7107
--- Groundwater Laboratory Analytical Reports ---

	Lab Sample Number:	S775503*1				S775503*2				S775503*3				S775503*4			
	Site	7107				7107				7107				7107			
	Locator	071RB101/7107 RB-1				071GM101/7107 MW-1				071GM201/7107 MW-2				071GM301/7107 MW-3			
	Collect Date:	29-SEP-97				29-SEP-97				29-SEP-97				29-SEP-97			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
EDB																	
Ethylene dibromide		.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02
Flo Pro																	
Petroleum Range Organics (Fl-P		.3	U	mg/l	.3	.72		mg/l	.3	.3	U	mg/l	.3	.3	U	mg/l	.3
Purgeable Aromatics																	
Methyl tert-butyl ether (MTBE)		10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)		2	U	ug/l	2	24		ug/l	2	2	U	ug/l	2	2	U	ug/l	2

NTC Orlando .ding 7107
Groundwater Laboratory Analytical Reports ---- HITS TABLE ----

Lab Sample Number:	S775503*1				S775503*2				S775503*3				S775503*4			
Site	7107				7107				7107				7107			
Locator	071RB101/7107 RB-1				071GM101/7107 MW-1				071GM201/7107 MW-2				071GM301/7107 MW-3			
Collect Date:	29-SEP-97				29-SEP-97				29-SEP-97				29-SEP-97			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Flo Pro																
Petroleum Range Organics (Fl-P	-	U	mg/l	.3	.72		mg/l	.3	-	U	mg/l	.3	-	U	mg/l	.3
Purgeable Aromatics																
Xylenes (total)	-	U	ug/l	2	24		ug/l	2	-	U	ug/l	2	-	U	ug/l	2

NTC ORLANDO BUILDING 7107

GROUNDWATER SUMMARY				
Lab Sample Number	75503-1	75503-2	75503-3	75503-4
Site	7107	7107	7107	7107
Locator	071RB101/7107 RB-1	071GM101/7107 MW-1	071GM201/7107 MW-2	071GM301/7107 MW-3
Collect Date	9/29/97	9/29/97	9/29/97	9/29/97

SOIL SUMMARY		
Lab Sample Number	75890-1	75890-2
Site	7107	7107
Locator	071SS101	071SS201
Collect Date	10/14/97	10/14/97

Serial Number 94110

SL SAVANNAH LABORATORIES & ENVIRONMENTAL SERVICES, INC.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

☑ 5102 LaRoche Avenue, Savannah, GA 31404 — Phone: (912) 354-7858 — Fax: (912) 352-0165
☐ 2846 Industrial Plaza Drive, Tallahassee, FL 32301 — Phone: (904) 878-3994 — Fax: (904) 878-9504
☐ 414 SW 12th Avenue, Deerfield Beach, FL 33442 — Phone: (954) 421-7400 — Fax: (954) 421-2584
☐ 900 Lakeside Drive, Mobile, AL 36693 — Phone: (334) 666-6633 — Fax: (334) 666-6696
☐ 6712 Benjamin Road, Suite 100, Tampa, FL 33634 — Phone: (813) 885-7427 — Fax: (813) 885-7049
☐ 100 Alpha Drive, Suite 110, Destrehan, LA 70047 — Phone: (504) 764-1100 — Fax: (504) 725-1183

2547.06

PROJECT REFERENCE	PROJECT NO.	P.O. NUMBER
NTC Orlando – Bldgs. 7107 7121	~~8558.20~~	

PROJECT LOC. (State)	SAMPLER(s) NAME	PHONE	FAX
FL	SCOTT DONELICK	407-895-8845	407-896-6150

CLIENT NAME	CLIENT PROJECT MANAGER
ABB-ES	JOHN KAISER

CLIENT ADDRESS (CITY, STATE, ZIP): 1080 Woodcock Rd Orlando, FL 32803

PAGE 1 OF

☒ STANDARD REPORT DELIVERY
☐ EXPEDITED REPORT DELIVERY (surcharge)
Date Due

SAMPLE DATE	SAMPLE TIME	SL NO.	SAMPLE IDENTIFICATION	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (oil, solvent, etc)	EPA 601/602+MTBE	EPA 610	EPA 239.2 Pb	EPA 504 EDB	FL-PRO	REMARKS
9-29-97			071RB101 / 7107 RB-1	X				3	2	1	3	2	BUILDING 7107
			071GM101 / 7107 MW-1	X				3	2	1	3	2	
			071GM201 / 7107 MW-2	X				3	2	1	3	2	
			071GM301 / 7107 MW-3	X				3	2	1	3	2	
			075GM101 / 7121 MW-1	X				3	2	1	3	2	BUILDING 7121
			075GM201 / 7121 MW-2	X				3	2	1	3	2	
			075GM301 / 7121 MW-3	X				3	2	1	3	2	
			TRIP (EPA 602 only)	X									

* Please make two different reports (one 7107 and one 7121)

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
M. Jancomb	9/29/97	3:00	Scott Donelick	9-29-97	1730			
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
Scott Donelick	9/29/97	1500						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SL LOG NO.	LABORATORY REMARKS:
M. Jancomb	9/30/97	9:42	☑ YES ☐ NO		97-75503	

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-75503
Received: 30 SEP 97
Reported: 20 OCT 97
S7ABORQC

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G
Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/BLDG#7107/7121/SDG#ABOR02
Sampled By: Client
Code: 141671020

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED	SDG#
75503-1	071RB101/7107 RB-1	09-29-97	ABOR02
75503-2	071GM101/7107 MW-1	09-29-97	ABOR02
75503-3	071GM201/7107 MW-2	09-29-97	ABOR02
75503-4	071GM301/7107 MW-3	09-29-97	ABOR02

PARAMETER	75503-1	75503-2	75503-3	75503-4
Purgeable Halocarbons (601)				
Bromodichloromethane, ug/l	1.0U	1.0U	1.0U	1.0U
Bromoform, ug/l	5.0U	5.0U	5.0U	5.0U
Bromomethane, ug/l	1.0U	1.0U	1.0U	1.0U
Carbon tetrachloride, ug/l	1.0U	1.0U	1.0U	1.0U
Chlorobenzene, ug/l	1.0U	1.0U	1.0U	1.0U
Chloroethane, ug/l	1.0U	1.0U	1.0U	1.0U
2-Chloroethylvinyl ether, ug/l	10U	10U	10U	10U
Chloroform, ug/l	1.0U	1.0U	1.0U	1.0U
Chloromethane, ug/l	1.0U	1.0U	1.0U	1.0U
Dibromochloromethane, ug/l	1.0U	1.0U	1.0U	1.0U
1,2-Dichlorobenzene, ug/l	1.0U	1.0U	1.0U	1.0U
1,3-Dichlorobenzene, ug/l	1.0U	1.0U	1.0U	1.0U
1,4-Dichlorobenzene, ug/l	1.0U	1.0U	1.0U	1.0U
Dichlorodifluoromethane, ug/l	1.0U	1.0U	1.0U	1.0U
1,1-Dichloroethane, ug/l	1.0U	1.0U	1.0U	1.0U
1,2-Dichloroethane, ug/l	1.0U	1.0U	1.0U	1.0U
1,1-Dichloroethene, ug/l	1.0U	1.0U	1.0U	1.0U
Cis/Trans-1,2-Dichloroethene, ug/l	1.0U	1.0U	1.0U	1.0U
1,2-Dichloropropane, ug/l	1.0U	1.0U	1.0U	1.0U

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-75503
Received: 30 SEP 97
Reported: 20 OCT 97
S7ABORQC
Client PO. No.: NE753107G

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/BLDG#7107/7121/SDG#ABOR02
Sampled By: Client
Code: 141671020

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED	SDG#
75503-1	071RB101/7107 RB-1	09-29-97	ABOR02
75503-2	071GM101/7107 MW-1	09-29-97	ABOR02
75503-3	071GM201/7107 MW-2	09-29-97	ABOR02
75503-4	071GM301/7107 MW-3	09-29-97	ABOR02

PARAMETER	75503-1	75503-2	75503-3	75503-4
cis-1,3-Dichloropropene, ug/l	1.0U	1.0U	1.0U	1.0U
trans-1,3-Dichloropropene, ug/l	1.0U	1.0U	1.0U	1.0U
Methylene chloride (Dichloromethane), ug/l	5.0U	5.0U	5.0U	5.0U
1,1,2,2-Tetrachloroethane, ug/l	1.0U	1.0U	1.0U	1.0U
Tetrachloroethene, ug/l	1.0U	1.0U	1.0U	1.0U
1,1,1-Trichloroethane, ug/l	1.0U	1.0U	1.0U	1.0U
1,1,2-Trichloroethane, ug/l	1.0U	1.0U	1.0U	1.0U
Trichloroethylene, ug/l	1.0U	1.0U	1.0U	1.0U
Trichlorofluoromethane, ug/l	1.0U	1.0U	1.0U	1.0U
Vinyl chloride, ug/l	1.0U	1.0U	1.0U	1.0U
Surrogate - Bromochloromethane	86 %	84 %	79 %	80 %
Date Analyzed	10.08.97	10.08.97	10.08.97	10.08.97
Dilution factor	1.0	1.0	1.0	1.0
Batch ID	1008A	1008A	1008A	1008A
Clock ID	2B1007	2B1007	2B1007	2B1007

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-75503
Received: 30 SEP 97
Reported: 20 OCT 97
S7ABORQC

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Client PO. No.: NE753107G
Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/BLDG#7107/7121/SDG#ABOR02
Sampled By: Client
Code: 141671020

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED	SDG#
75503-1	071RB101/7107 RB-1	09-29-97	ABOR02
75503-2	071GM101/7107 MW-1	09-29-97	ABOR02
75503-3	071GM201/7107 MW-2	09-29-97	ABOR02
75503-4	071GM301/7107 MW-3	09-29-97	ABOR02

PARAMETER	75503-1	75503-2	75503-3	75503-4
Purgeable Aromatics (602)				
Benzene, ug/l	1.0U	1.0U	1.0U	1.0U
Toluene, ug/l	1.0U	1.0U	1.0U	1.0U
Ethylbenzene, ug/l	1.0U	1.0U	1.0U	1.0U
Total Xylenes, ug/l	2.0U	24	2.0U	2.0U
Methyl tert-butyl ether (MTBE), ug/l	10U	10U	10U	10U
Surrogate - a,a,a-Trifluorotoluene	100 %	100 %	100 %	97 %
Date Analyzed	10.08.97	10.08.97	10.08.97	10.08.97
Dilution factor	1.0	1.0	1.0	1.0
Batch ID	1008A	1008A	1008A	1008A
Clock ID	2B1007	2B1007	2B1007	2B1007

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-75503
Received: 30 SEP 97
Reported: 20 OCT 97
S7ABORQC
Client PO. No.: NE753107G

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/BLDG#7107/7121/SDG#ABOR02
Sampled By: Client
Code: 141671020

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED	SDG#
75503-1	071RB101/7107 RB-1	09-29-97	ABOR02
75503-2	071GM101/7107 MW-1	09-29-97	ABOR02
75503-3	071GM201/7107 MW-2	09-29-97	ABOR02
75503-4	071GM301/7107 MW-3	09-29-97	ABOR02

PARAMETER	75503-1	75503-2	75503-3	75503-4
Polynuclear Aromatics (610)				
Acenaphthene, ug/l	10U	10U	10U	10U
Acenaphthylene, ug/l	10U	10U	10U	10U
Benzo(a)pyrene, ug/l	10U	10U	10U	10U
Benzo(g,h,i)perylene, ug/l	10U	10U	10U	10U
Benzo(b,k)fluoranthene, ug/l	10U	10U	10U	10U
Chrysene + Benzo(a)anthracene, ug/l	10U	10U	10U	10U
Fluoranthene, ug/l	10U	10U	10U	10U
Fluorene, ug/l	10U	10U	10U	10U
Indeno(1,2,3-cd)pyrene+Dibenzo(a,h)anthracene, ug/l	10U	10U	10U	10U
Naphthalene, ug/l	10U	10U	10U	10U
Phenanthrene + Anthracene, ug/l	10U	10U	10U	10U
Pyrene, ug/l	10U	10U	10U	10U
1-Methylnaphthalene, ug/l	10U	10U	10U	10U
2-Methylnaphthalene, ug/l	10U	10U	10U	10U
Surrogate - 2-Fluorobiphenyl	72 %	96 %	74 %	73 %
Date Extracted	10.03.97	10.03.97	10.03.97	10.03.97
Date Analyzed	10.06.97	10.06.97	10.06.97	10.06.97
Dilution factor	1.0	1.0	1.0	1.0
Batch ID	1003V	1003V	1003V	1003V
Instrument ID	SGSFID	SGSFID	SGSFID	SGSFID

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

LOG NO: S7-75503
Received: 30 SEP 97
Reported: 20 OCT 97
S7ABORQC
Client PO. No.: NE753107G

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/2547.06/BLDG#7107/7121/SDG#ABOR02
Sampled By: Client
Code: 141671020

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE SAMPLED	SDG#
75503-1	071RB101/7107 RB-1	09-29-97	ABOR02
75503-2	071GM101/7107 MW-1	09-29-97	ABOR02
75503-3	071GM201/7107 MW-2	09-29-97	ABOR02
75503-4	071GM301/7107 MW-3	09-29-97	ABOR02

PARAMETER	75503-1	75503-2	75503-3	75503-4
Lead (239.2)				
Lead (239.2), mg/l	0.0050U	0.0050U	0.0051	0.0050U
Preparation Date	10.03.97	10.03.97	10.03.97	10.03.97
Date Analyzed	10.07.97	10.07.97	10.07.97	10.07.97
Dilution factor	1.0	1.0	1.0	1.0
Batch ID	1003G	1003G	1003G	1003G
Ethylene dibromide				
1,2-Dibromoethane (EDB) , ug/l	0.020U	0.020U	0.020U	0.020U
Date Extracted	10.09.97	10.09.97	10.09.97	10.09.97
Date Analyzed	10.09.97	10.09.97	10.09.97	10.09.97
Dilution factor	1.0	1.0	1.0	1.0
Batch ID	1009P	1009P	1009P	1009P
Instrument ID	SGRECD	SGRECD	SGRECD	SGRECD
Petroleum Range Organics (FL-PRO)				
Petroleum Range Organics (FL-PRO), mg/l	0.30U	0.72	0.30U	0.30U
Surrogate - O-Terphenyl (OTP)	131 %	86 %	48 %*F36	56 %*F36
Date Extracted	10.03.97	10.03.97	10.03.97	10.03.97
Date Analyzed	10.07.97	10.07.97	10.07.97	10.07.97
Batch ID	1003U	1003U	1003U	1003U

Methods: EPA SW-846
*F36 = Surrogate recovery was outside established limits due to coeluting matrix interference in the sample.

Linda A. Wolfe
Linda A. Wolfe, Project Manager

CASE NARRATIVE

SDG# ABOR02
SL PROJECT#s S775503, S775503A

Petroleum Range Organics (FL-PRO) Fraction

The following samples were analyzed according to Florida DEP method FL-PRO for the determination of petroleum range organics.

SL#	SAMPLE DESCRIPTION	MATRIX
S775503*1	071RB101/7107 RB-1	Liquid
S775503*2	071GM101/7107 MW-1	Liquid
S775503*3	071GM201/7107 MW-2	Liquid
S775503*4	071GM301/7107 MW-3	Liquid
S775503A*1	075GM101/7121 MW-1	Liquid
S775503A*2	075GM201/7121 MW-2	Liquid
S775503A*3	075GM301/7121 MW-3	Liquid

A lab control standard was analyzed for quality control.

Samples S775503-3, S775503-4, S775503A-1, S775503A-2, and S775503A-3 were re-extracted due to surrogate recoveries outside quality control limits. Analysis of the re-extracts yielded concurring results. Low recoveries may be due to sample matrix effect. Surrogate recoveries outside QC limits are flagged with data qualifier "*F36" on the LIMS report. Surrogate recoveries for the method blank and lab control standard were within quality control limits.

CASE NARRATIVE

SDG# A8OR02
SL PROJECT#s S775503, S775503A

Petroleum Range Organics (FL-PRO) Fraction

The following samples were analyzed according to Florida DEP method FL-PRO for the determination of petroleum range organics.

SL#	SAMPLE DESCRIPTION	MATRIX
S775503*1	071RB101/7107 RB-1	Liquid
S775503*2	071GM101/7107 MW-1	Liquid
S775503*3	071GM201/7107 MW-2	Liquid
S775503*4	071GM301/7107 MW-3	Liquid
S775503A*1	075GM101/7121 MW-1	Liquid
S775503A*2	075GM201/7121 MW-2	Liquid
S775503A*3	075GM301/7121 MW-3	Liquid

A lab control standard was analyzed for quality control.

Samples S775503-3, S775503-4, S775503A-1, S775503A-2, and S775503A-3 were re-extracted due to surrogate recoveries outside quality control limits. Analysis of the re-extracts yielded concurring results. Low recoveries may be due to sample matrix effect. Surrogate recoveries outside QC limits are flagged with data qualifier "*F36" on the LIMS report. Surrogate recoveries for the method blank and lab control standard were within quality control limits.

8757411460

33 200 14963161 6012

9-29-97 1874-7599-2

ACCT DONELICK (407-[illegible]-8845

ATP ENVIRONMENTAL SVCS INC 9775603

1080 WOODCOCK RD STE 100

ORLANDO FL 32803

2547-06

LINDA WOLFE 912 354-7858

SAVANNAH LABORATORIES, INC

5102 LaRoche Avenue

Savannah GA 31404

For HOLD at FedEx location check here

For Saturday Delivery check here

8 Release Signature

232

Serial Number

SL SAVANNAH LABORATORIES & ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue, Savannah, GA 31404 — Phone: (912) 354-7858 — Fax: (912) 352-0165
2846 Industrial Plaza Drive, Tallahassee, FL 32301 — Phone: (904) 878-3994 — Fax: (904) 878-9504
414 SW 12th Avenue, Deerfield Beach, FL 33442 — Phone: (954) 421-7400 — Fax: (954) 421 2584
900 Lakeside Drive, Mobile, AL 36693 — Phone: (334) 666-6633 — Fax: (334) 666-6696
8712 Benjamin Road, Suite 100, Tampa, FL 33634 — Phone: (813) 885-7427 — Fax: (813) 885-7049
100 Alpha Drive, Suite 110, Destrehan, LA 70047 — Phone: (504) 764-1100 — Fax: (504) 725-1163

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

2547.06

PROJECT REFERENCE	PROJECT NO	P.O. NUMBER
NTC Orlando - Bldgs 7107 7121	~~7558-26~~	

PROJECT LOC. (State)	SAMPLER(s) NAME	PHONE	FAX
FL	Scott Donelick	407-895-8845	407-896-6150

CLIENT NAME	CLIENT PROJECT MANAGER
ABB-ES	John Kaiser

CLIENT ADDRESS (CITY, STATE, ZIP): 1080 Woodcock Rd Orlando, FL 32803

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒ — EXPEDITED REPORT DELIVERY (surcharge) ☐ — Date Due

SAMPLE DATE	SAMPLE TIME	SL NO.	SAMPLE IDENTIFICATION	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (for solvent, etc.)	EPA 601/602+MTBE	EPA 610	EPA 239.2 Pb	EPA 504 EDB	FL-PRO	REMARKS
9-29-97			071RB101 / 7107 RB-1	X				3	2	1	3	2	BUILDING 7107
			071GM101 / 7107 MW-1	X				3	2	1	3	2	
			071GM201 / 7107 MW-2	X				3	2	1	3	2	
			071GM301 / 7107 MW-3	X				3	2	1	3	2	
			075GM101 / 7121 MW-1	X				3	2	1	3	2	BUILDING 7121
			075GM201 / 7121 MW-2	X				3	2	1	3	2	
			075GM301 / 7121 MW-3	X				3	2	1	3	2	
			TRIP (EPA 602 only)	X									

* Please make two different reports (One for 7107 and one for 7121)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
M Sancomb	9/29/97	3:00	Scott Donelick	9-29-97	1730			
RECEIVED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY (SIGNATURE)**	**DATE**	**TIME**
Scott Donelick	9/25/97	1500						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SL LOG NO.	LABORATORY REMARKS
M. Sancomb	9/30/97	9:42	☑ YES ☐ NO		97-75503	

APPENDIX H

CALCULATION SHEET

PROJECT	COMP. BY	JOB NO.
Site Assessment Report Bldg 7107 McCoy Annex	J. Nasr	2547.15
	CHK. BY M.A.	DATE 1/14/98

Volume = Area × Depth

$= 50\ ft^2 \times 4\ ft = 200\ ft^3$

$200\ \cancel{ft^3} \times \frac{1\ yd^3}{27\ \cancel{ft^3}} = 7.4\ \cancel{yds^3} \times \frac{1.4\ tons}{\cancel{yd^3}} =$

$10.37\ \cancel{tons} \times \frac{907.186\ kg}{1\ \cancel{ton}} = 9407.52\ kg$

Hydrocarbon Mass = 497.8 mg/kg

Hydrocarbon Mass in Soil

$497.8\ \frac{mg}{\cancel{kg}} \times 9407.52\ \cancel{kg} = 4,683,063.5\ mg$

$\frac{1\ kg}{1,000,000\ \cancel{mg}} \times 4683063.5\ \cancel{mg} = \boxed{4.68\ kg}$