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FINAL CORRECTIVE ACTION PLAN FOR TANK 304 NAB LITTLE CREEK VA
10/1/1995
ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

FINAL
CORRECTIVE ACTION PLAN
Naval Amphibious Base Little Creek
Tank 304
Virginia Beach, Virginia
PC # 94-1088

Prepared for:
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia
Contract No. N62470-93-D-4019
Delivery Order 0030

Prepared by:
Environmental Science & Engineering, Inc.
Chesapeake, Virginia

October 1995

ESE Project No. 2295042G-1091-2200

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1.0 Introduction

The Atlantic Division, Naval Facilities Engineering Command (LANTNAVFACENGCOM) contracted Environmental Science and Engineering, Inc. (ESE) on 12 January 1995 to prepare a Corrective Action Plan (CAP) for Tank Site 304 located adjacent to Building 301 at Naval Amphibious Base (NAB) Little Creek in Virginia Beach, Virginia (Figure 1-1). This CAP has been prepared based on information provided in ESE's Site Characterization Report for Tank 304 (SCR, July 1994). Figure 1-2 illustrates the location of the underground storage tanks (USTs), monitor wells, soil borings, and various structures on and adjacent to the site.

ESE conducted a Site Characterization (SC) in May 1994 to evaluate the extent and the potential impact of diesel fuel detected at the subject site. SC results indicated the presence of absorbed-phased hydrocarbon (APH) and phase-separated hydrocarbon (PSH) in the subsurface.

Groundwater monitoring on 27 May 1994 indicated a PSH thickness of 0.09 foot in MW-1. Additional assessment activities were conducted to delineate the extent and magnitude of PSH adjacent to MW-1.

This CAP has been prepared in accordance with VR 680-13-02, Section 6.6, and guidance documents published by the Virginia Department of Environmental Quality (VDEQ). Additional assessment activities and results are discussed in Section 2.0. The updated Risk Assessment (RA), incorporating data collected from supplemental field work, is presented in Section 3.0. Schedules for system operation and monitoring, numerical endpoints, waste disposal, reporting requirements, and estimated costs for the selected system are presented in Section 4.0. The CAP Checklist is provided in Appendix A.

1.1 Previous Studies

In December 1993, General Physics Corporation (GPC) conducted an investigation of 13 USTs at NAB Little Creek, which involved collecting soil samples during the monitor well installation. UST 304-1 and 304-2 results indicated the presence of petroleum hydrocarbons in the soil. In a letter dated 17 December 1993, Ms. Nancy Merhige of the Base Civil Engineering Department NAB Little Creek notified the VDEQ, Tidewater Regional Office, Water Division, of the results obtained by GPC. Based on this information, the VDEQ issued PC#94-1088 and requested that an Initial Abatement Checklist and Site Check be submitted, which NAB Little Creek submitted on 6 January 1994.

As part of NAB Little Creek's Phase IV UST Program, the two 6000-gallon USTs were removed and replaced in the summer of 1994 with two 6000-gallon double-walled fiberglass USTs with

interstitial monitoring on the tanks and piping. The two 6000-gallon USTs are used to supply fuel to government vehicles from the motor pool.

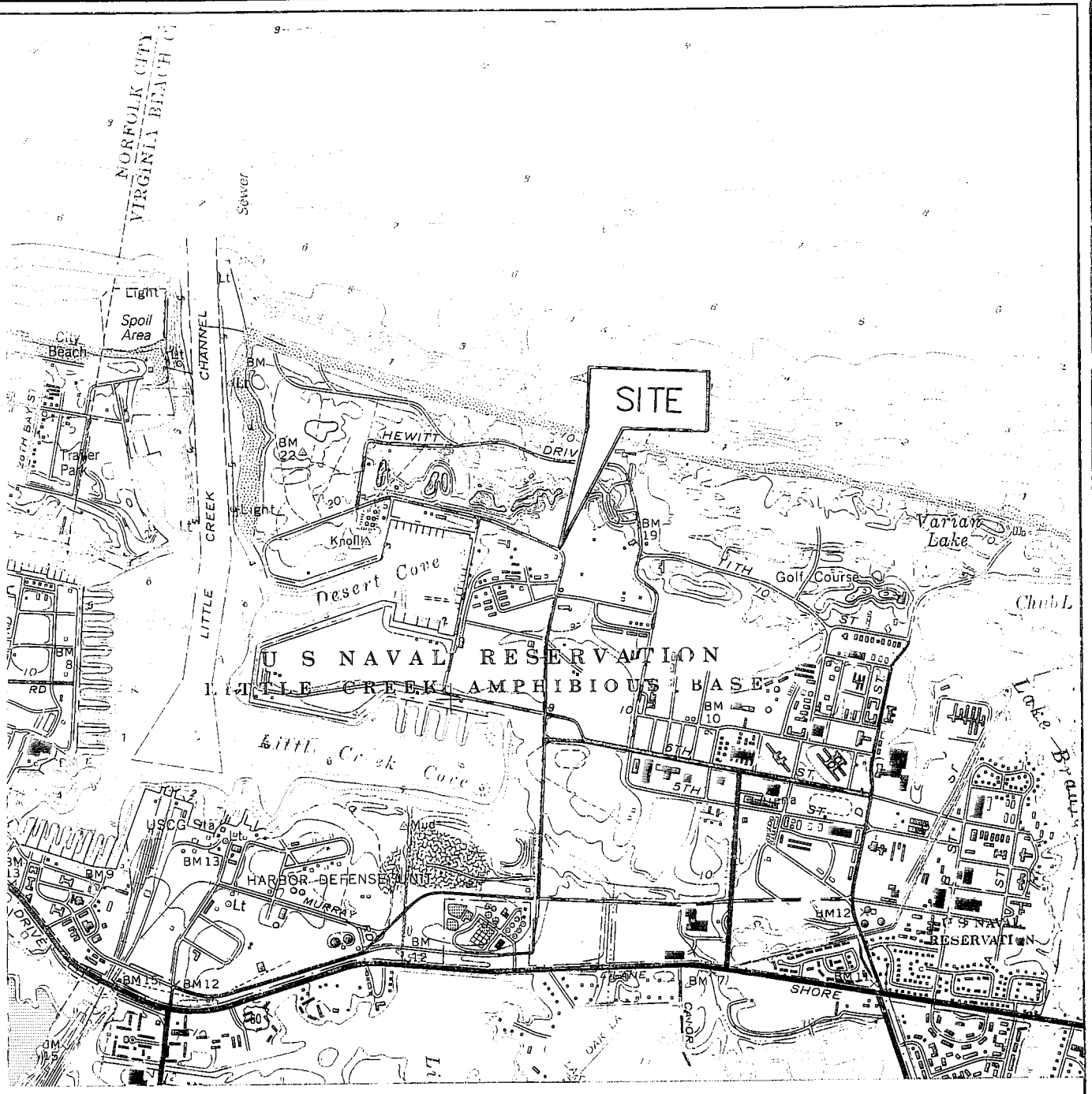
As a result of GPC's December 1993 investigation, ESE conducted an SC to evaluate the petroleum hydrocarbon extent and impact at UST Site 301/304 in May 1994. The SC included collecting soil samples from 11 borings (SB-1 through SB-4 and MW-1 through MW-7), installing 7 groundwater monitor wells (MW-1 through MW-7), and subsequently collecting and analyzing soil and groundwater samples (Figure 1-3).

Soil samples collected on 5 May 1994 from MW-1 and SB-2 at 2 to 4 feet and 4 to 6 feet below ground surface (bgs) indicated total petroleum hydrocarbon (TPH, EPA Method 8015) concentrations above the VDEQ action level of 100 milligrams per kilogram (mg/kg). The remainder of the soil TPH samples were below method quantification limits (BQL). A soil sample collected from MW-1 at 4 to 6 feet bgs indicated benzene, toluene, ethylbenzene, and total xylenes (BTEX, 8020) concentrations above the VDEQ action level of 10 mg/kg. Except for MW-7, the remainder of the soil samples were BQL for BTEX.

Groundwater samples were collected from MW-1 through MW-7 on 27 May 1994 for BTEX (8020), TPH (8015), base-neutral-acid (BNA, 625), volatile organic compound (VOC, 8240), and naphthalene (610) analyses. Results were BQL in each sample.

Groundwater monitoring on 27 May 1994 indicated a PSH thickness of 0.09 foot in MW-1. The groundwater gradient is approximately 0.003 foot/foot (ft/ft) to the southwest. A uniform clay layer exists across the site at an approximate depth of 13 feet bgs. Aquifer slug testing performed on 19 May 1994 yielded an average hydraulic conductivity (K) of 14.2 ft/day and a groundwater flow velocity 0.12 ft/day or 43.8 ft/year.

The RA determined that pathways for both onsite and offsite receptors were incomplete for BTEX compounds in groundwater, and environmental impact to surface water does not exist. Based on the RA, site remediation is recommended to reduce the PSH level in monitor wells to VDEQ recommended standards of less than 0.01 foot. The remediation assessment recommended that further subsurface investigation be conducted. Specifically, additional monitor wells should be installed in the area of MW-1 to delineate the extent of PSH and associated soil impact.



MN GN

8 1/2° 151 MILS

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SCALE 1:24000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

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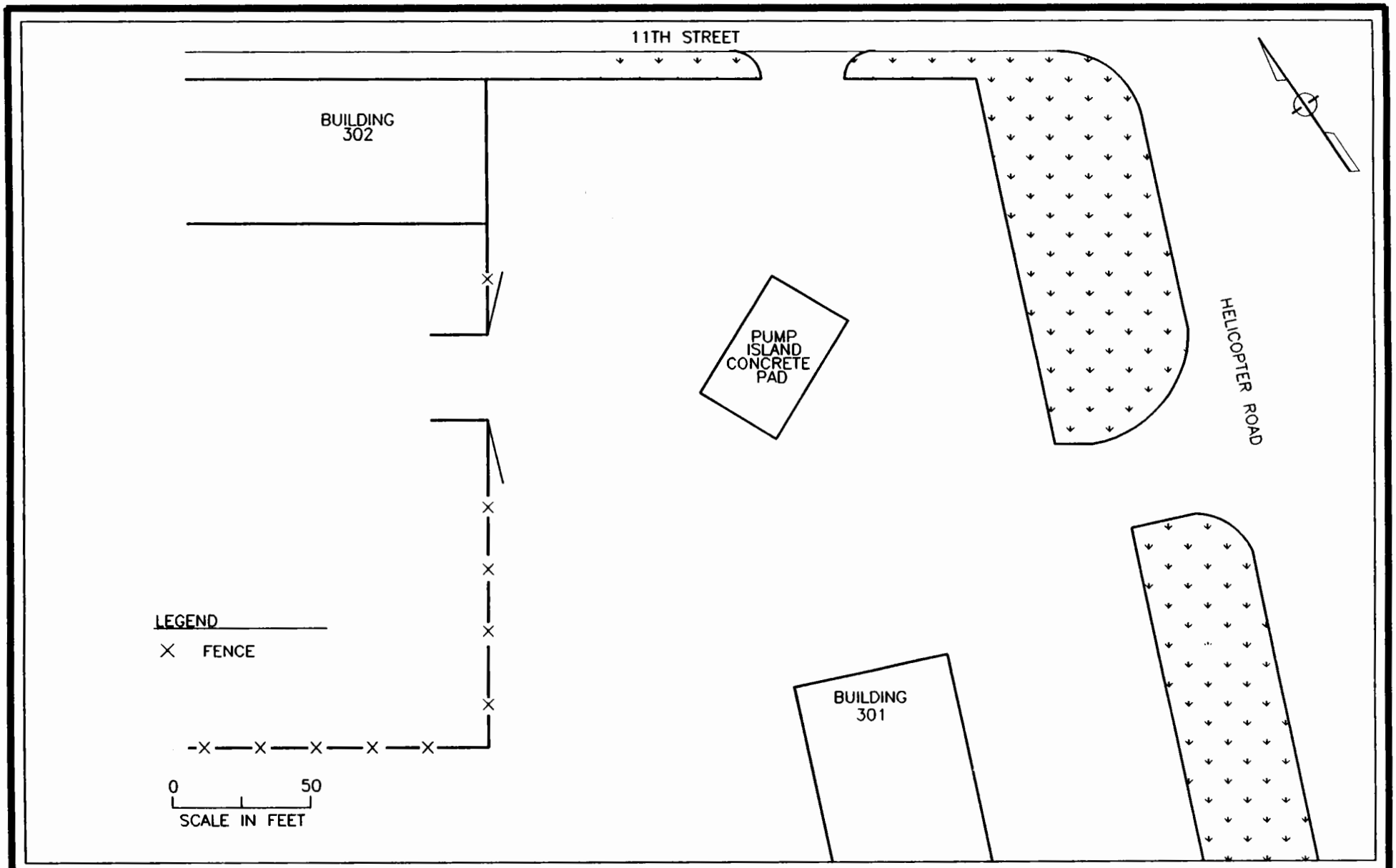
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SOURCE: VIRGINIA BEACH, VIRGINIA

ESE Environmental Science & Engineering	DATE 7-7-95	SCALE SHOWN	TITLE SITE LOCATION AND TOPOGRAPHIC MAP NAB - LITTLE CREEK TANK 304 VIRGINIA BEACH, VIRGINIA
	DRAWN BY DN	APPROVED BY	
	JOB NO. 2295082G	DWG. NO./ REV. NO. 1 / -	CLIENT LANTDIV
			FIGURE 1-1



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DRAWN BY: TJS	APPROVED BY:	
JOB NO.: 2295042G	DWG. NO./ REV. NO.: SM42G	CLIENT: LANTDIV
		FIGURE: 1-2

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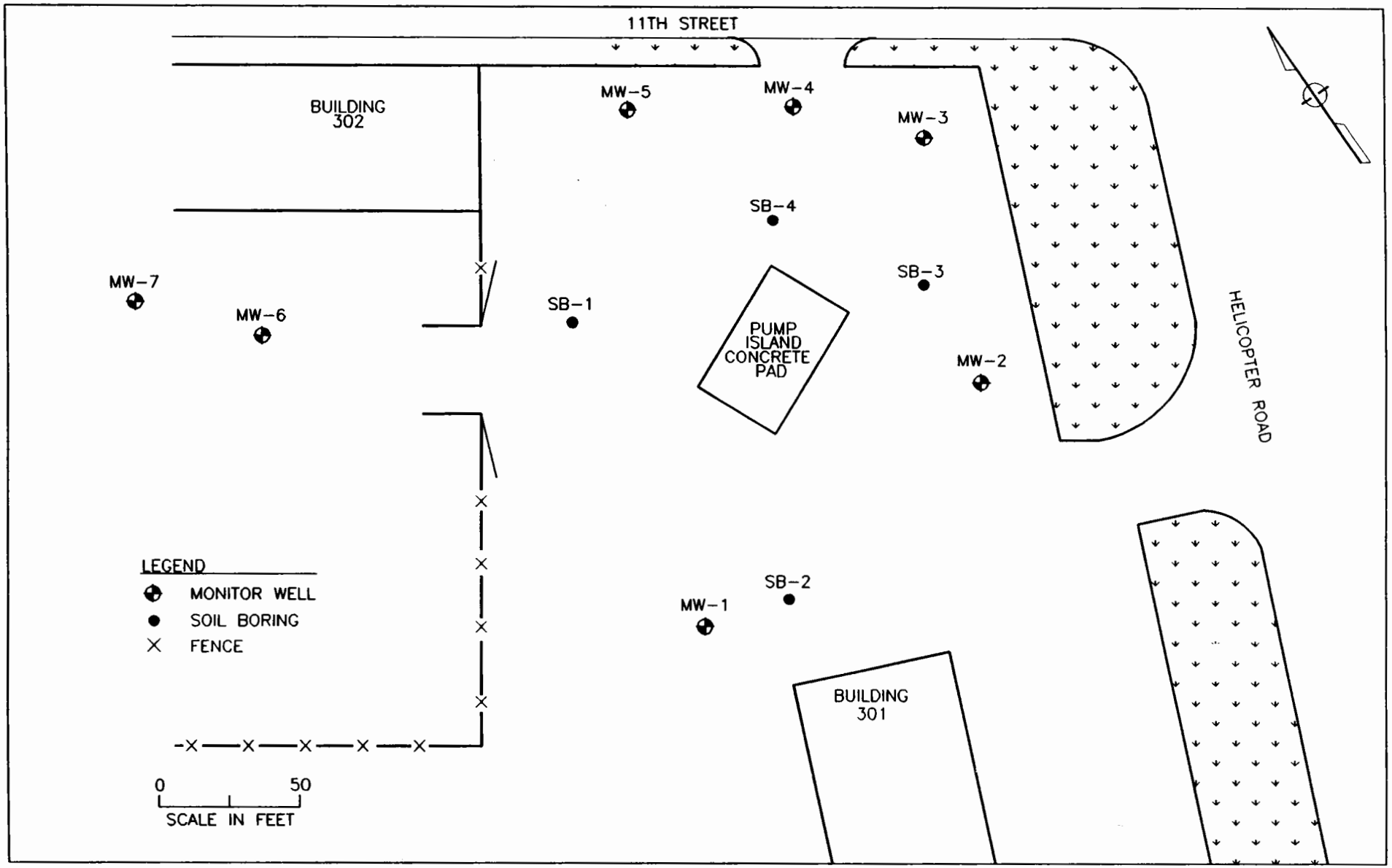

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DATE 7-3-95	SCALE SHOWN	TITLE EXISTING MONITOR WELL AND SOIL BORING LOCATION MAP NAB-LITTLE CREEK TANK 304 VIRGINIA BEACH, VIRGINIA	
DRAWN BY DN	APPROVED BY		
JOB NO. 2295042G	DWG. NO./ REV. NO. XW42G	CLIENT LANTDIV	FIGURE 1-3

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JT SCALE: 1 = 1

2.0 Supplemental Field Work

2.1 Investigative Methods

The following section describes methods used during the field investigation, which included installing five soil borings, converting them to monitor wells, and performing laboratory analyses on soil and groundwater samples. Investigation results are discussed in Section 2.2.

2.1.1 Borings/Monitor Wells

Rock-Ray Drilling, of Virginia Beach, Virginia, advanced soil borings MW-8 through MW-12 (Figure 2-1) to approximately 15 feet bgs on 1-2 May 1995 under the supervision of an ESE geologist. Information collected during boring activities was used to delineate the extent of petroleum impact in the subsurface. Following sampling, the borings were converted into groundwater monitor wells to delineate PSH.

Standard penetration tests were performed during drilling to collect soil samples in accordance with ASTM D-1586. Samples were collected at 0 to 2 feet, 2 to 4 feet, 4 to 6 feet, and 5-foot centers thereafter to obtain sufficient samples for analysis. Sampling equipment was decontaminated between sampling events with a Micro®/distilled water wash and double-rinsed with distilled water.

Each soil sample was logged lithologically, and a representative portion was placed in a resealable bag. The remainder was placed in laboratory-supplied sample containers, labeled, and secured on ice. Each bagged sample was allowed to volatilize for at least 10 minutes at ambient temperature, and then the headspace of the bag was scanned with an organic vapor monitor (OVM). The two samples exhibiting the highest OVM readings, one near the groundwater interface and one in the vadose zone, were shipped to the laboratory following ESE and industry standard chain-of-custody and quality assurance (QA) controls. Samples were analyzed for TPH (8015) and BTEX (8020).

Borings for MW-8 through MW-12 were advanced using standard 4.5-inch ID hollow-stem augers (HSA); monitor wells were constructed using LANTDIV UST monitor well construction and field operations protocol in Appendix B, Attachment 1, in Contract N62470-93-D-4019. MW-8 through MW-12 were cased with 2-inch diameter, Schedule 40, threaded PVC casings with 0.01-inch slot size screens.

Boring depths and screen lengths were designed based on the depth at which water was first encountered to ensure ample screen for seasonal variations in water table elevation. Boring logs and well schematics are included in Appendix B.

2.1.2 Survey and Well Development

CEGG Partnership (licensed surveyors) vertically surveyed MW-8 through MW-12 to a mean sea level (msl) datum. Tops of monitor well casings were surveyed within ± 0.03 foot from the nearest US Geological Survey (USGS) permanent benchmark to msl.

Each newly installed monitor well not containing PSH was developed by hand bailing on 4 May 1995. The water volume in each well was calculated, and then each well was agitated by moving the bailer up and down, causing water to move in and out of the well screen. Wells were purged by removing approximately three times the well volume, including the annular space. Purge water generated from development activities was placed in 55-gallon drums and stored at the site for final disposal.

2.1.3 Groundwater Monitoring

During drilling operations, soil cuttings were saturated in MW-8 through MW-12 between 7 and 8 feet bgs. ESE measured liquid levels in each well on 8 May 1995 using an electronic interface probe accurate to 0.01 foot; groundwater was measured at approximately 7 and 8 feet bgs. No PSH was detected in any of the monitor wells during this sampling event.

A second round of liquid level measurements was performed on 6 July 1995. PSH was detected in MW-1 and MW-8 at thicknesses of 0.08 and 0.4 feet, respectively. Depth to groundwater measurements collected on 6 July were used to calculate the groundwater elevation in each well, and elevation data were used to generate the groundwater potentiometric map (Figure 2-2). The groundwater potentiometric map indicates that the site is an extremely localized groundwater recharge area: the majority of the site is covered by soil, and surrounding areas are covered by asphalt, concrete, and buildings. Groundwater flow appears to be variable at the subject site. Groundwater in the area of MW-1, MW-9, MW-11, and MW-12 appears to flow southwest at an approximate gradient of 0.01 ft/ft. Groundwater in the vicinity of MW-8 and MW-10 appears to flow south at an approximate gradient of 0.015 ft/ft. Based on the low relief in groundwater elevations in the area of MW-3 through MW-7, no specific groundwater flow direction was determined. Liquid level measurements are presented in Table 2-1.

2.1.4 Groundwater Sampling

Because no PSH was observed a the time of sampling, MW-1 through MW-12 were purged before sampling on 8 and 9 May 1995 by removing three volumes from each well with a decontaminated hand bailer. Decontamination procedures included washing with a Micro®/distilled water solution, double-rinsing with distilled water, and air drying.

Samples collected from MW-1 through MW-12 were analyzed for TPH (8015) and BTEX, methyl-tert-butyl-ether (MTBE), and naphthalene (8020). Samples collected from MW-8, MW-10, and MW-11 were also analyzed for BNAs (8270). All samples were collected with a decontaminated disposable bailer, using ESE and industry standard chain-of-custody and QA controls.

2.2 Results

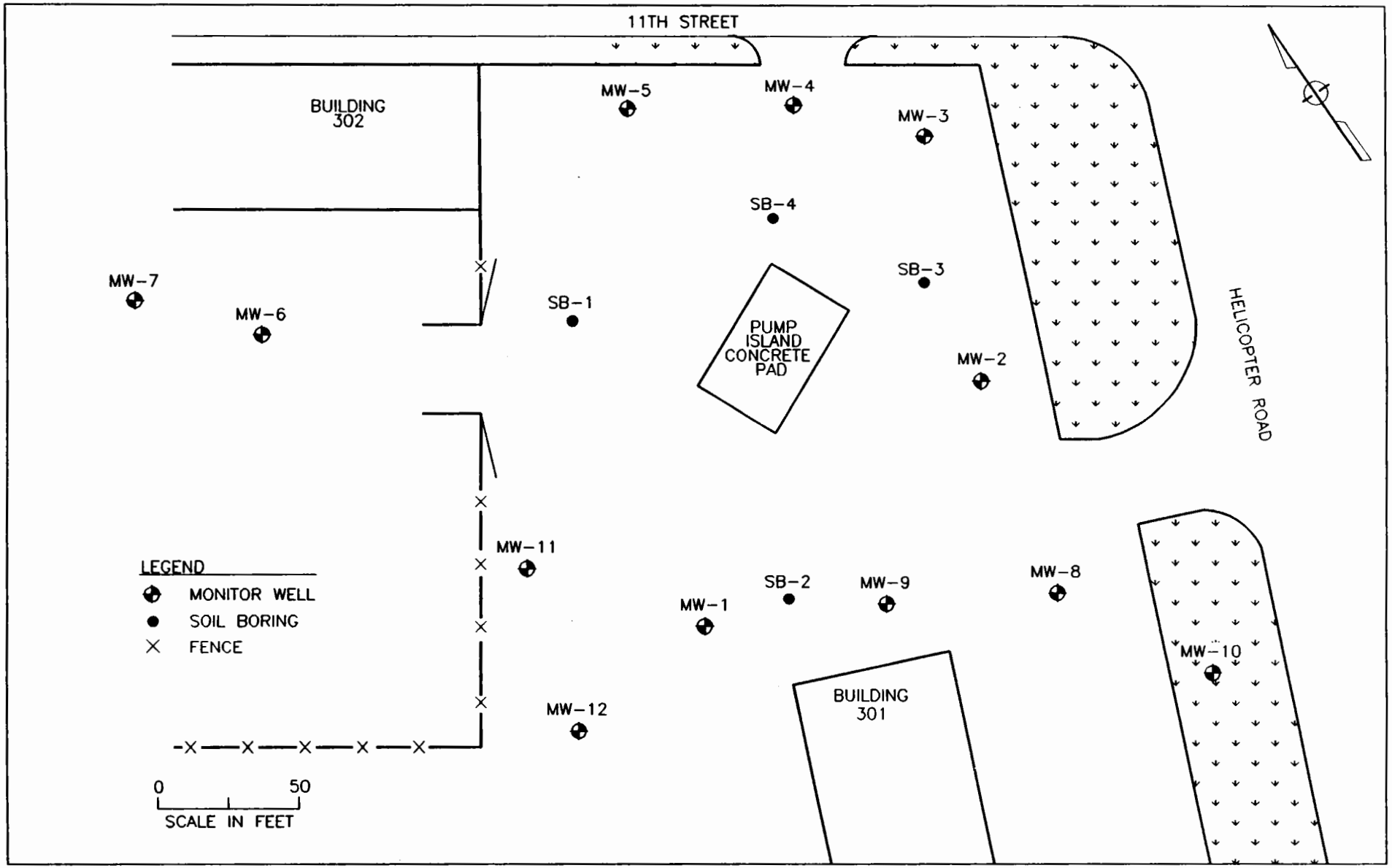
2.2.1 Soil Analytical Results

Soil analytical results are summarized in Table 2-2 and presented in Appendix C. Benzene and toluene concentrations were BQL (0.001 mg/kg) in each sample. Ethylbenzene was detected in MW-8 and MW-11, with the highest concentration of 0.071 mg/kg in MW-8 from 6 to 8 feet. Total xylene concentrations were detected in MW-8 through MW-11, with the highest concentration of 0.650 mg/kg in MW-8 at 6 to 8 feet. TPH concentrations were detected in MW-8, MW-10, and MW-11, with the highest concentration of 2,100 mg/kg in MW-11 at 4 to 6 feet.

2.2.2 Groundwater Analytical Results

Groundwater analytical results are summarized in Table 2-3 and presented in Appendix C. Benzene and toluene were BQL for each sample. Ethylbenzene and total xylenes were detected in MW-1 at of 0.003, and 0.017 mg/l, respectively. Naphthalene was detected in MW-1, MW-8, and MW-10 at concentrations of 0.24, 0.031, and 0.006 mg/l, respectively. BNAs were not detected above the quantification limit in any of the samples collected. TPH was detected in MW-1, MW-8, MW-10, and MW-11 at concentrations of 120, 7.5, 1.3, and 0.8 mg/l, respectively. Groundwater samples collected from MW-1, MW-8, and MW-10 indicated dissolved TPH concentrations above the Virginia groundwater standard of 1 mg/l. Groundwater samples collected from MW-8, MW-10, and MW-11 did not indicate the presence of BNAs above the method quantification limit.

Quality assurance/quality control (QA/QC) samples included a duplicate sample from MW-10, a trip blank, and an equipment decontamination rinse blanks. The trip blank was below method quantification limits for compounds analyzed. The rinse blank was BQL for the compounds analyzed except for bis(2-ethylhexyl)-phthalate at a 0.43 mg/l. The MW-10 duplicate sample yielded results within expected tolerance limits, except for bis(2-ethylhexyl)phthalate, and di-n-Octylphthalate at concentrations of 0.014 and 0.01 mg/l, respectively. Bis(2-ethylhexyl)phthalate and di-n-Octylphthalate are common laboratory contaminants, and are believed to be as such in these samples.



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DATE	SCALE	TITLE
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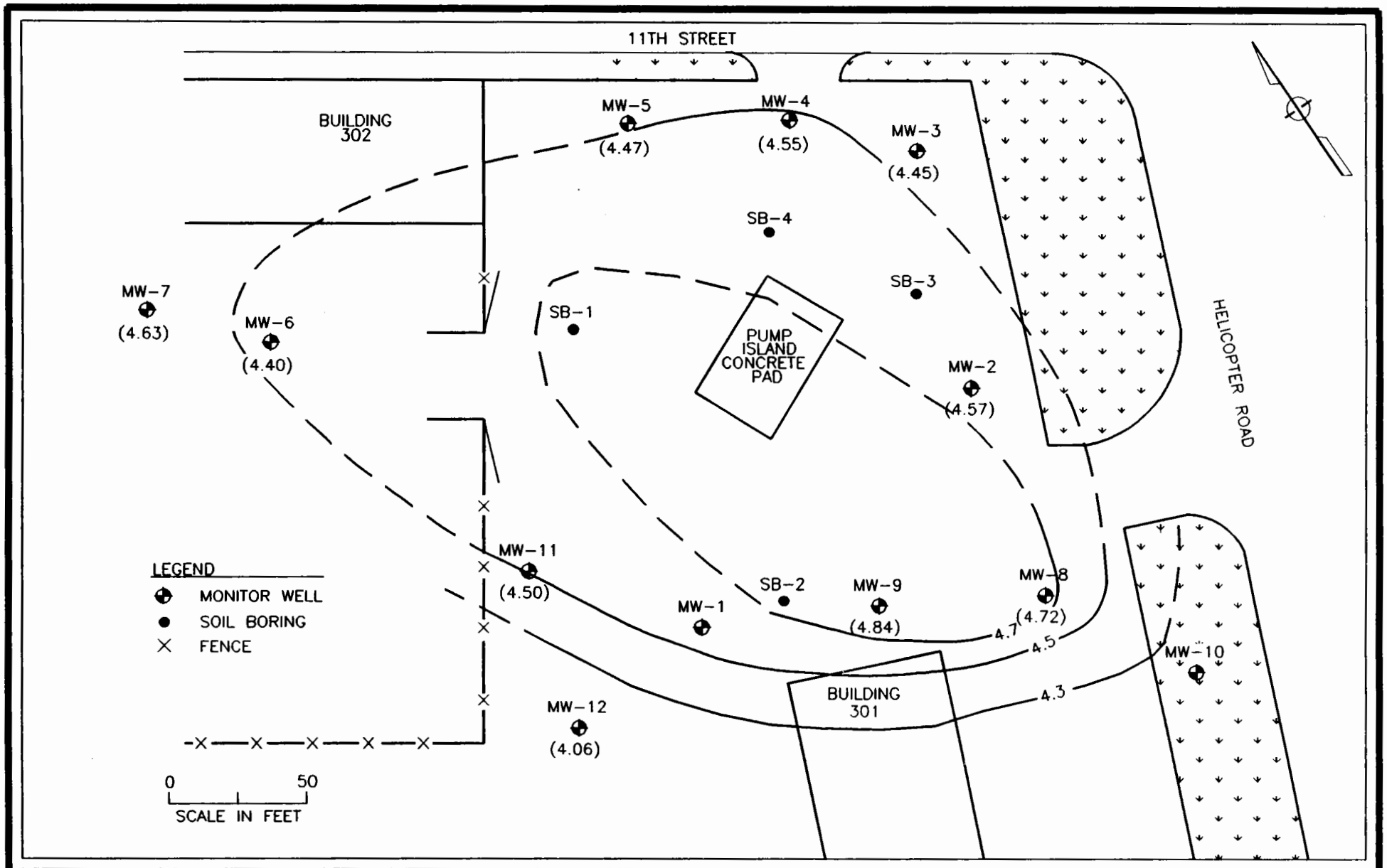
DRAWN BY: DN	APPROVED BY:	
JOB NO. 2295042G	DWG. NO./ REV. NO. SB42G / -	CLIENT: LANTDIV
		FIGURE 2-1



Environmental Science & Engineering

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DATE	SCALE	TITLE	
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DRAWN BY: DN	APPROVED BY		
JOB NO. 2295042G	DWG. NO./ REV. NO: GW42G	CLIENT: LANTDIV	FIGURE 2-2

FILE NAME: JN2295042G.DWG ; BY : DVN ; DATE: 1995-07-03

Table 2-1
Summary of Liquid Level Measurements

Monitor Well ID	Top of Casing Elevation (msl)	Depth to Product (below TOC)	Depth to Groundwater (below TOC)	Product Thickness	Ground-water Elevation (msl)
MW-1	12.1	7.92	8.00	0.08	4.17*
MW-2	12.25	ND	7.68	NA	4.57
MW-3	12.32	ND	7.87	NA	4.45
MW-4	12.29	ND	7.74	NA	4.55
MW-5	12.74	ND	8.27	NA	4.47
MW-6	13.07	ND	8.67	NA	4.40
MW-7	13.12	ND	8.49	NA	4.63
MW-8	12.41	7.62	8.02	0.4	4.72*
MW-9	12.13	ND	7.29	NA	4.84
MW-10	12.13	ND	7.92	NA	4.21
MW-11	12.84	ND	8.34	NA	4.50
MW-12	12.55	ND	8.49	NA	4.06

Notes:

Data collected 6 July 1995
msl = mean sea level
TOC = top of casing
* = Corrected groundwater elevation for diesel PSH using a specific gravity of 0.82

Table 2-2
Summary of Soil Analytical Results

Boring	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylene (mg/kg)	TPH (mg/kg)
MW-8	6-8	BQL[1]	BQL[1]	0.071	0.650	1800
MW-8	9-11	BQL[1]	BQL[1]	0.004	0.026	170
MW-9	4-6	BQL[1]	BQL[1]	BQL[1]	BQL[1]	BQL[2]
MW-9	6-8	BQL[1]	BQL[1]	BQL[1]	0.009	BQL[2]
MW-10	6-8	BQL[1]	BQL[1]	BQL[1]	0.006	410
MW-10	9-11	BQL[1]	BQL[1]	BQL[1]	BQL[1]	140
MW-11	4-6	BQL[1]	BQL[1]	0.004	0.045	2100
MW-11	6-8	BQL[1]	BQL[1]	BQL[1]	0.008	650
MW-12	4-6	BQL[1]	BQL[1]	BQL[1]	BQL[1]	BQL[2]
MW-12	6-8	BQL[1]	BQL[1]	BQL[1]	BQL[1]	BQL[2]

Notes: [1] Below Quantification Limit of 0.001 mg/kg
[2] Below Quantification Limit of 10.0 mg/kg

Table 2-3
Groundwater Analytical Results Summary

Well No.		MW-1	MW-8	MW-9	MW-10	MW-11	MW-12	Fld[1] Blank	Dup[2]	Quant[3] Limit
Analyte:	Units:									
Benzene (8020)	mg/l	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.001
Toluene (8020)	mg/l	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.001
Ethylbenzene (8020)	mg/l	0.003	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.001
Total Xylene (8020)	mg/l	0.017	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.001
TPH (8015)	mg/l	120	7.5	BQL	1.3	0.8	BQL	BQL	2.9	0.5
Naphthalene (8020)	mg/l	0.240	0.031	BQL	0.006	BQL	BQL	BQL	0.019	0.010
BNAs (8270)	mg/l	NS	BQL	NS	BQL	BQL	NS	BQL	BQL	0.010

Notes: BQL= Below Quantification Limit
[1] Equipment (bailer) decontamination rinse blank
[2] Sample duplicate of MW-8
[3] Laboratory quantification (detection) limit
NS = Not sampled

3.0 Updated Risk Assessment

Groundwater analytical results from MW-2 through MW-7 did not indicate the presence of dissolved-phase hydrocarbon (DPH) in groundwater during the SC; MW-1 was not sampled due to the presence of PSH. The original RA did not address DPH because it had not been detected, and based on analytical data, did not recommend remediation. However, because PSH was detected in MW-1, the RA recommended removing PSH to the state-recommended level of 0.01 foot, along with removing PSH-impacted soil in the area of MW-1.

During the additional assessment activities for CAP development, DPH was detected in MW-1, MW-8, MW-10, and MW-11. The following section revisits the RA by including the current groundwater analytical data collected as part of the additional assessment activities.

To determine the relative significance of the concentrations detected at the site, the analytical results for groundwater were compared to health-based guidance levels. This procedure is used by EPA to screen hazardous waste sites regulated by Superfund and the Resource Conservation and Recovery Act (RCRA) (EPA, 1995), and was applied to this site to provide a perspective on the relative significance of site-related contamination, and to focus on which chemicals and media may require corrective action evaluation. Further corrective action may include additional SC or a site-specific quantitative RA to determine if remediation is required to reduce site contamination to acceptable levels.

3.1 Health-Based Guidance Levels

Health-based guidance levels were identified or developed for each chemical detected in groundwater as the basis for determining the relative significance of contamination detected. Health-based guidance levels represent chemical concentrations for a single chemical that do not pose unacceptable health risks to an individual exposed to this level, under standard default exposure assumptions. To be most protective of human health, default exposure assumptions associated with the most conservative land use (residential) were used.

The health screening analysis consists of a direct comparison of a chemical concentration detected in groundwater to the corresponding health-based value identified or developed for that chemical. Exceedance of health-based guidance level does not necessarily indicate risk (the comparison does not consider site-specific exposure patterns and conditions); rather, the purpose of this comparison is to establish presumptive levels for indicating if closer examination of the potential exposure is warranted. Such examinations may include SC activities to further define the nature and extent of contamination, and/or a site-specific RA to determine if remediation is required.

Because the site may have both human and ecological receptors, the detected chemical concentrations were compared to the most stringent human or ecological health-based guidance value. The hierarchy of values used for the comparison were established promulgated standards (i.e., maximum containment levels (MCLs) for groundwater, and ambient water quality criteria (AWQCs) for the protection of human health and aquatic organisms), when available, otherwise health-based levels were developed based on an residential land use and methods presented in EPA risk assessment guidance (EPA, 1995; EPA, 1991; EPA, 1989).

3.2 Results of Health-Based Screening

As shown in Table 3-1, the maximum detected concentrations of dissolved contaminants in groundwater are well below the MCLs and/or health-based values for the protection of human health. In addition, groundwater concentrations are below the freshwater AWQCs for the protection of aquatic species. Based on this conservative health-based screening, further SC and/or RA activities are not required.

Table 3-1
Comparison of Onsite Groundwater Concentrations and Human Health/Aquatic Organism Health Criteria (mg/l)

Chemical	Onsite GW Concentrations (mg/l)	Freshwater Criteria *		Maximum Contaminant Level (MCL)
		Acute	Chronic	
Ethylbenzene	0.003	32	--	0.7
Toluene	<0.001	17.5	--	1.0
TPH	120	--	--	--
Total, Xylenes	0.017	--	--	10.0
Naphthalene	0.240	2.3	0.62	1.4**

Notes:

-- Not determined
* Values presented are the lowest observed effect levels for aquatic species.
** Drinking Water Equivalent Level (DWEL) (health-based acceptable level in drinking water; assumes a 70 kilogram adult ingests 2 liters of water per day L/day, 350 days per year, for 30 years, and that the oral reference dose (RfD) for naphthalene is 0.04 mg/kg/day, as follows (EPA, 1995):

$$DWEL = \frac{BW \times AT \times RfD_{oral}}{EF \times ED \times IR}$$

where: BW = body weight of an adult
AT = averaging time for noncarcinogens (ED x 365 days/yr)
RfD = oral Reference Dose
EF = exposure frequency
ED = exposure duration
IR = ingestion rate of water

$$DWEL = \frac{70\ kg \times (365\ days \times 30\ years) \times 0.04\ mg/kg/day}{350\ days \times 30\ years\ 2\ L/day} = 1.4\ mg/L$$

Sources: ESE.
IRIS, 1995.
EPA, 1995 (Risk-Based Concentration Table - June 1995).

4.0 Remediation Design

4.1 Remediation Technology Overview

PSH was not detected in the newly installed monitor wells or in MW-1 during the initial monitoring, but was detected in MW-1 and MW-8 in subsequent measurements. According to NAB Little Creek officials, approximately 20 milliliters (ml) of PSH are removed from MW-1 every two weeks by a passive bailer. PSH removal began in July 1994 and has continued to the present.

Analytical results indicate the presence of DPH in MW-1, MW-8, MW-10, and MW-11. Based on the updated RA incorporating these values, the levels detected do not pose a risk to human health or the environment.

Based on the available data (including the supplemental field investigation and revised RA), soil excavation is recommended to mitigate APH and PSH because the additional assessment did not indicate a continuous plume across the site. Excavation should eliminate existing and future groundwater impact due to APH in soil.

Soil excavation will consist of removing approximately 2800 tons of potentially PSH-impacted soil. Excavation will be performed in two portions of the site: the western area centered around MW-11 and MW-1, and the eastern area centered around MW-8 (Figure 4-1). Excavated soils will be stockpiled and used for backfill or transported offsite for disposal in a permitted sanitary landfill.

Soil excavation may expose impacted groundwater and PSH for removal by pumping. Fluids in the open excavation will be pumped into a vacuum truck if encountered and transported offsite for treatment and disposal.

Several onsite features (overhead steam lines, sanitary sewer, USTs, and pump island) will require special consideration during design and excavation phases.

4.2 Remediation Activities Methodology

Soil excavation will involve several tasks, including excavation, soil testing and analysis, and soil treatment. In the case of the eastern area excavation pit, fluids extraction and disposal will also be required.

The dimensions of the western excavation area are approximately 90 feet long, 80 feet wide, and 6 feet deep; the eastern excavation area is approximately 65 feet long, 50 feet wide, and 8 feet deep.

A backhoe will be used to excavate the eastern and western areas to depths of approximately 8 and 6 feet, respectively. The eastern area will be excavated to approximately the depth of the average water table elevation (8 feet below surface). The open excavation will then be pumped rapidly to remove fluids as completely as possible.

Fluids from the excavation will be pumped into a vacuum truck for transportation offsite to a licensed wastewater treatment and disposal facility. Laboratory analysis of the water will be performed to determine TPH (8015) and BTEX and naphthalene (8020) concentrations for treatment and disposal.

The excavation will then be allowed to recharge to the static water level (approximately 24 hours). If no PSH is observed, the excavation will be backfilled with clean fill or excavated soils not exceeding 1000 mg/kg TPH (see below). The fluids will be pumped into a vacuum truck for transportation and disposal offsite. If PSH is observed, the fluids will be pumped into a vacuum truck as previously described, so that PSH thicknesses are less than 0.01 foot.

Additionally, the western area will be excavated to 8 feet deep in a minimum 20-foot radius of MW-11. The depth of the average water table elevation is approximately 8 feet. If fluids are encountered in the open excavation, pumping and backfilling will proceed as stated above. Otherwise, the excavation will be backfilled with clean fill or excavated soils not exceeding 1000 mg/kg TPH.

Excavated soil will be continuously monitored with a photo-ionization detector (PID) capable of detecting volatile organic vapors to a minimum of 1 part per million (ppm). Soil that consistently registers above the background level will be segregated into a separate stockpile and sampled for disposal. Excavation will continue along the proposed excavation boundaries until continuous PID readings indicate that all remaining soil is less than background.

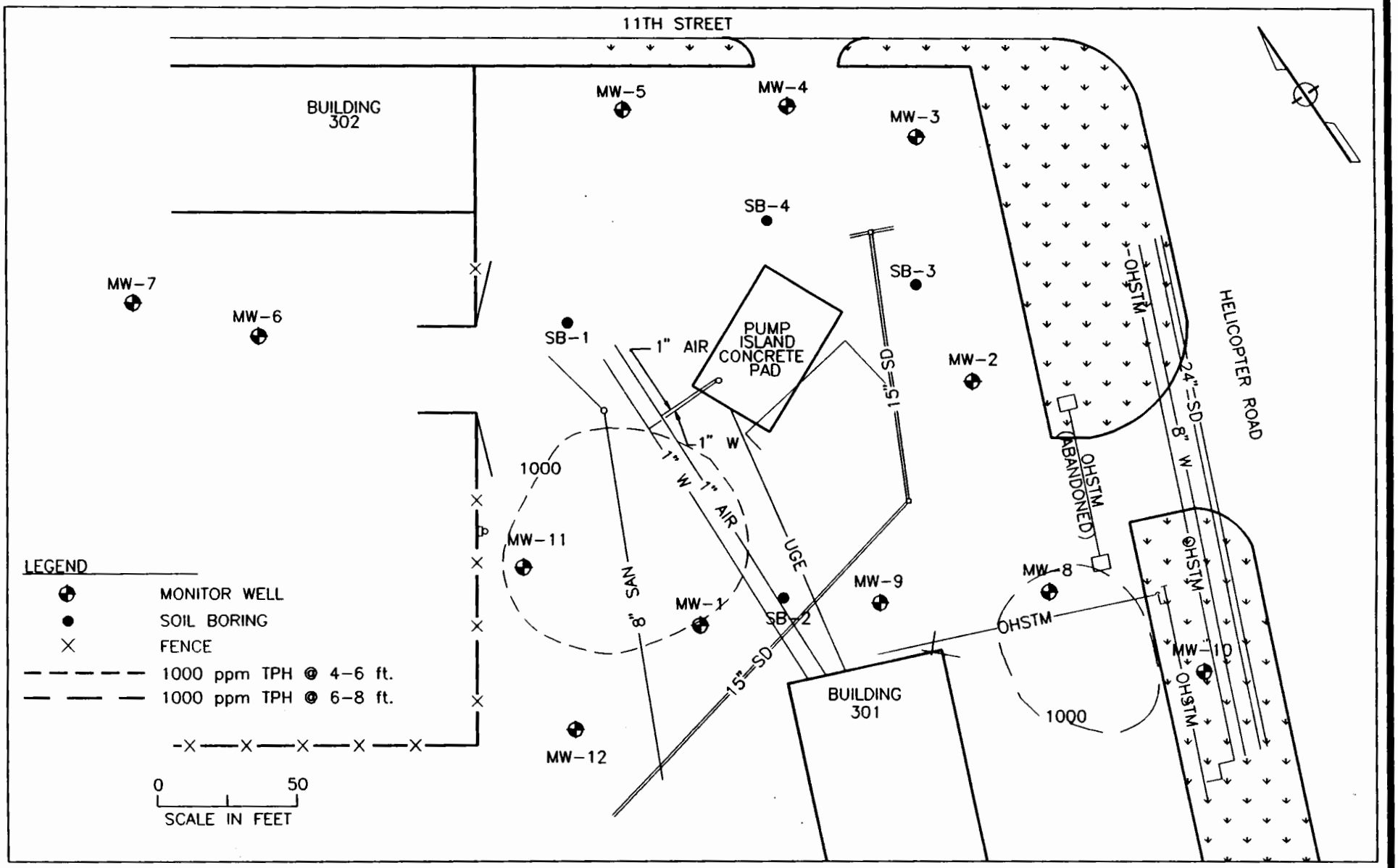
Excavated soil will be handled as contaminated until laboratory analyses are completed. All stockpiled soil will be placed in a temporary containment area on an impervious barrier to prevent leachate formation from precipitation through the contaminated soil. Stockpiles will be covered with polyethylene sheeting (minimum 20-mil) and anchored to minimize runoff. Additionally, protective measures (e.g., polyethylene-covered straw bales) will be implemented to divert runoff around the stockpiled soil. Removal activities will be performed to minimize soil stockpile weather exposure.

Immediately following excavation, one composite soil sample from the excavation perimeter walls and floor will be collected from each excavation site to confirm that APH endpoints are achieved. Samples will be submitted for laboratory analysis of TPH (8015).

Excavated soil will be used as clean backfill if TPH concentrations are below 1000 mg/kg. If concentrations are above those levels, clean backfill material will be provided, and contaminated soil will be disposed of in a permitted sanitary landfill equipped with a liner and leachate collection system. Any impacted soil transported to a permitted sanitary landfill will be transported by a certified transporter. It is anticipated that the soil excavated by construction activities will be backfilled or disposed of properly within 60 days of excavation.

Several site features will require special consideration. An 8-inch sanitary sewer line crosses the western area. Soil will be excavated from around the sanitary as close as possible to the line without damaging it; however, soil will not be excavated from below the sanitary in order to maintain the line's integrity. Excavation in the vicinity of the UST, pump island, and associated concrete pad will require precautions to avoid damage, although the tanks and concrete covers will not be moved. Soil excavation in that area will be performed carefully and will be addressed in the design.

Overhead steam lines cross the eastern area and are expected to require dismantling as a result of excavation. The steam line will be shut off about 40 feet from the northern and southern limits of the anticipated excavation. The overhead lines between the shutoff points will be replaced by a temporary steam hose buried in sand as a safety precaution. The steam line will be dismantled, as required, to perform the soil excavation. After excavation is completed, the dismantled portion of the lines will be reinstalled and the steam system will be reactivated.



Environmental Science & Engineering (A CILCORP Company)	DATE 9-20-95	SCALE SHOWN	TITLE 100 ppm CONCENTRATION IN SOIL AND PROPOSED EXCAVATION AREA NAB-LITLE CREEK / TANK 304 VIRGINIA BEACH, VIRGINIA
	DRAWN BY TJF	APPROVED BY	
	JOB NO. 2295042G	DWG. NO./ REV. NO. SB82H / -	CLIENT LANTDIV
			FIGURE 4-1

5.0 System Operation and Monitoring

5.1 Operational Schedule

The operation and monitoring schedule has been developed to ensure compliance with remediation endpoints. Table 5-1 summarizes the monitoring schedule, sampling parameters, locations and frequency, and remedial endpoints, which are further discussed in the following sections.

5.2 Numerical Remedial Endpoints

The RA performed as part of the SC indicated that only PSH removal was required. The PSH endpoint is derived from VDEQ action levels for free product and the CAP General Permit free product monitoring requirements (Table 5-1). The recommended PSH endpoint will be confirmed by using an oil-water interface probe accurate to 0.01 foot to measure PSH recharge into the open excavations. Recommended endpoints will be confirmed via TPH (8015) analyses.

5.2.1 PSH

Fluid removal during excavation is expected to recover all PSH encountered during remediation. The PSH endpoint will be achieved when less than 0.01 foot is measured in the open excavation.

5.2.2 APH

APH endpoints of 1000 mg/kg TPH (8015) will be quantified during a one-time sampling event following excavation. Samples will be collected from the excavation as described in Section 4.2. A schedule to maintain soil APH endpoints is not proposed because it will be completely removed during soil excavation.

5.2.3 DPH

A schedule to maintain DPH endpoints is not applicable because the RA indicated that groundwater concentrations were not at levels necessary for remediation.

5.3 Post-Operational Schedule

Post-operational monitoring for PSH and APH are not applicable because soil excavation is expected to completely remove both.

5.4 Implementation Schedule

The main elements of CAP implementation are permitting, excavation, backfilling, and soil treatment. Figure 5-1 is a timeline for implementing each CAP main element.

5.5 Reporting Requirements

A final report documenting excavation activities and results will be submitted to the VDEQ within 30 days of completing excavation activities.

5.6 Waste Disposal/Recycling

All waste generated during CAP implementation will be managed in accordance with VDEQ Division of Waste Management, the local fire department, and other agencies' requirements, and in accordance with the local, state, and federal regulations. It is expected that petroleum-impacted soil and fluids will be generated during remedial activities.

5.6.1 Soils Generated During Remediation Activities

During excavation activities, continuous monitoring of soil will be performed by field screening with a PID and observing for visual hydrocarbon impact. Based on the field screening results, the excavated soil will be stockpiled and managed as described in Section 4.2.

5.6.2 Fluids Generated During Remediation Activities

The fluids removed from the excavation will be pumped to a vacuum truck and transported to an offsite treatment facility as described in Section 4.2.

5.7 Public Notification

When the VDEQ approves the CAP, the general public will be notified in accordance with VR 680-13-02, Section 6.8. The public will be made aware of the VDEQ's approval in the legal section of the Virginian Pilot and Ledger Star. A copy of the statement of public notice is included in Appendix D.

5.8 Contingency Plan

A contingency plan will be activated in case the proposed numerical endpoints cannot be achieved using the chosen technology (i.e., PSH less than 0.01-foot and APH 1000 mg/kg TPH). The

plan will be based on site-specific conditions and may include actions such as installing groundwater recovery points and/or performing additional excavation.

5.9 Permits and Authorizations

A Utility Outage Permit and an Excavation Permit will be required from NAB Little Creek Public Works. Additionally, VDEQ requires a CAP permit; Appendix E includes a completed CAP application form.

5.10 Estimated Costs of CAP Implementation

The estimated cost to complete soil excavation activities is $142,000 based on excavating approximately 2800 tons of impacted soil. The estimated cost of soil and water removal, treatment, and disposal is $81,000, and for sampling is $73,000. Total estimated CAP implementation cost is $296,000. The following is a breakdown of the cost estimate for implementing the CAP.

Soil Excavation

- Consultant . . . . . $ 42,000
- Excavation Contractor 100,000

Subtotal $142,000

Soil and Water Treatment, Transport, and Disposal

- Trucking Contractor (soil removal and return) . . . . . $ 25,000
- Soil Disposal Contractor 41,000
- Water Treatment/Disposal 15,000

Subtotal $81,000

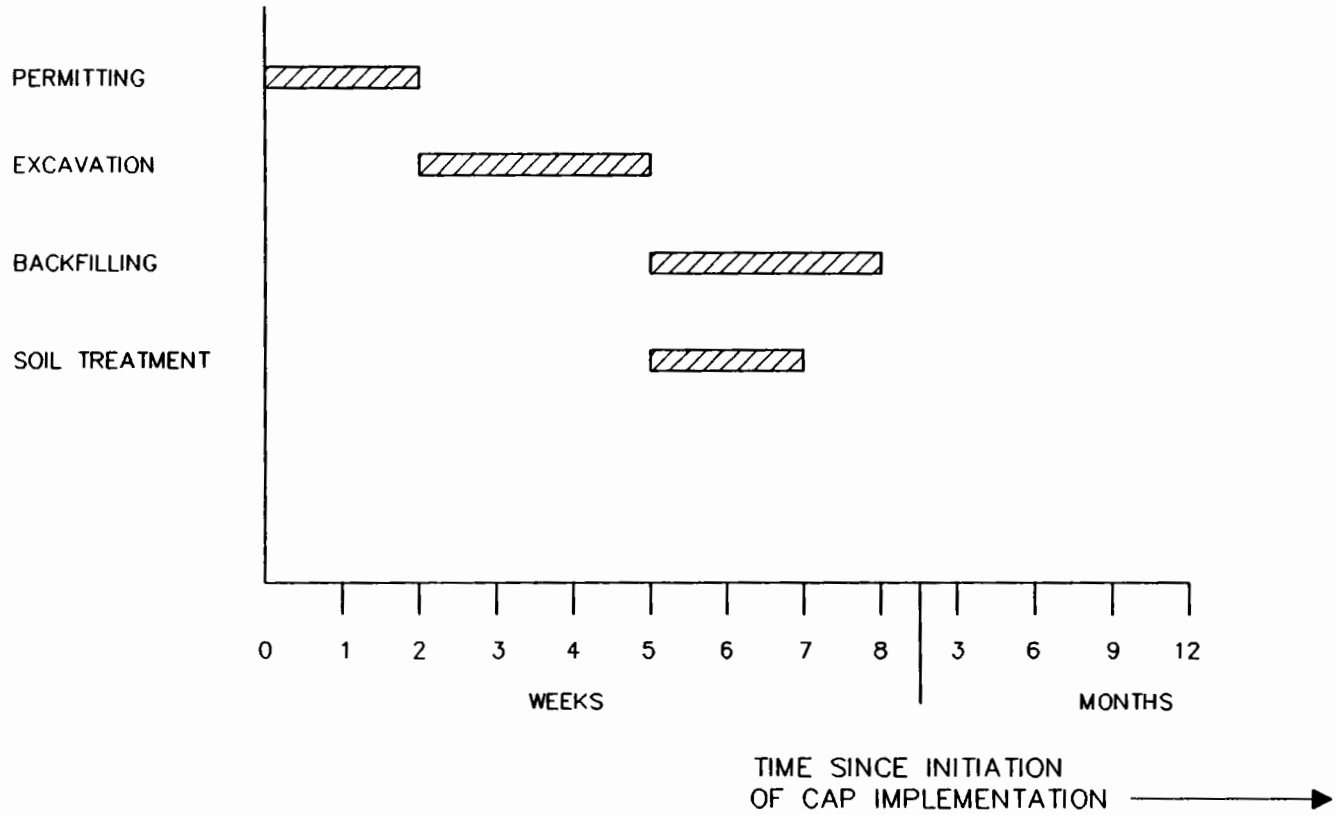
Sampling

- Consultant $65,000
- Laboratory (soil and water sampling) 8,000

Subtotal $73,000

TOTAL $296,000

SOIL EXCAVATION
CAP IMPLEMENTATION TIME LINES
TANK SITE 304
NAB LITTLE CREEK



Environmental Science & Engineering (A CILCORP Company)	DATE 9-20-95	SCALE N.T.S.	TITLE SOIL EXCAVATION CAP IMPLEMENTATION TIME LINES TANK SITE 304 – NAB LITTLE CREEK VIRGINIA BEACH, VIRGINIA	
	DRAWN BY TJF	APPROVED BY		
	JOB NO. 2295042G	DWG. NO./ REV. NO. TL17A / –	CLIENT LANTDIV	FIGURE 5-1

Table 5-1. CAP Summary Worksheet

Phase of Contamination	Proposed Cleanup Endpoints	Proposed Monitoring to Achieve Endpoints					System Shutdown Not Applicable	Proposed Post Oper. Monitoring		Close Site or Reactivate System
		Sampling Location	Sampling Frequency & Type	Method of Analysis	Schedule to Achieve Endpoints	Schedule to Maintain Endpoints		Sampling Frequency & Type	Post Oper. Monitoring Schedule	
Free Product - fuel oil	<0.01 ft.	Open excavation	One-time following soil excavation, interface probe and bailer	NA	1 month	NA (due to complete PSH removal)		NA (due to complete PSH removal)	NA (due to complete PSH removal)	
Dissolved Product GW	NA (Endpoints not necessary based on Risk Assessment)	NA	NA	NA	NA	NA		NA	NA	
Residual Product in Soils TPH	Below the following TPH=100mg/kg	Perimeter walls and floor of excavation	One time sampling, following excavation completion	TPH (8015)	1 month	NA (due to complete soil removal)		NA (due to complete soil removal)	NA (due to complete soil removal)	
Vapor Product Extracted From Soils* NA	NA	NA	NA	NA	NA	NA		NA	NA	

* Vapor product extraction will not be performed because of the lack of potential vapor-phase contaminants remaining after complete soil removal.
NA = Not applicable.

For VDEQ Use: Comments: _____
_____ Reviewed by:_____ Date:_____

6.0 References

Environmental Science & Engineering, Inc. 1994. Final Site Characterization, NAB Little Creek, Tanks 304-1 and 304-2, Virginia Beach, Virginia. Environmental Science & Engineering, Inc., Herndon, Virginia. July 1994 (unpublished).

Integrated Risk Information System (IRIS). 1995. US Environmental Protection Agency (EPA). Micromedex TOMES PLUS® System CD/ROM. Managed by Micromedex, Inc., Denver, Colorado.

US Environmental Protection Agency (EPA). 1995. Risk-Based Concentration Table. January - June 1995. EPA Region III. Technical Support Section. March 7, 1995.

US Environmental Protection Agency (EPA). 1991. Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. OSWER Directive 9285.6-03. Office of Solid Waste and Emergency Response (Mar. 25, 1991).

US Environmental Protection Agency (EPA). 1989. Risk Assessment Guidance for Superfund (RAGS), Vol. I, Human Health Evaluation Manual (Part A). EPA/540/1-89/002.

APPENDIX A

CAP Checklist

CORRECTIVE ACTION PLAN CHECKLIST

Site: NAB Little Creek Tank 304 PC# 94-1088 Region Tidewater

The following checklist must be filled out by the Responsible Party and/or his Consultant and included in the Corrective Action Plan. **Indicate on the checklist the page and section number where each item is addressed in the attached plan.** Also indicate on the checklist the section and page number where justification is given for items omitted from the attached plan. The contents of the report should reflect and be commensurate with the nature of the release, degree of contamination and complexity of the site investigation.

A copy of the Initial Abatement Measures Report and Site Characterization Report must be attached to or included in the **Corrective Action Plan**.

Items marked with an * are required as part of the CAP Permit Application.

1. CORRECTIVE ACTION PLAN

Page	/ Section	
NA	/	Cleanup measures conducted under Interim Authorization **(none performed)**
16	/ 4.0	*Block diagram, conceptual design, and narrative description of all proposed remediation systems (sketches, locations, design calculations, etc.)
16	/ 4.0	*Maximum hours/day of operation
16	/ 4.0	*Average hours/day of operation
16	/ 4.0	*Days/week of operation
20	/ 5.2	Numerical remediation endpoints for all applicable phases (e.g., TPH, BTEX, lead and other appropriate pollutants)
20	/5.2.1	Free product
20	/5.2.3	Dissolved
20	/5.2.2	Residual
NA	/NA	Vapor **(no potential vapor phase)**
NA	/NA	System effluent **(no effluent)**
20	/5.1	Operational monitoring schedule
24	/Table 5-1	Parameters
24	/Table 5-1	Frequency
24	/Table 5-1	Locations
24	/Table 5-1	Methods (media, detection limits, units of measure)
20	/ 5.2	Achievement of endpoints as evidenced by maintenance of values (numerical endpoints) over time
24	/Table 5-1	Parameters
24	/Table 5-1	Duration (period of time)
24	/Table 5-1	Locations
24	/Table 5-1	Methods (media, detection limits, units of measure)
24	/ Table 5-1	Proposed system shutdown schedule

20 / 5.3 Post-operational monitoring schedule
- 24 /Table 5-1 Parameters
- 24 /Table 5-1 Frequency
- 24 /Table 5-1 Locations
- 24 /Table 5-1 Methods (media, detection limits, units of measure)

21 / 5.8 Resumption of cleanup/site closure (CAP modification if necessary)

21 / 5.5 Reporting schedule (compliance monitoring and annual reports)

21 / 5.6 *Disposal/treatment of contaminated material (soils, free product, filter media, etc.)

21 / 5.5 Submittal schedule for free product removal reports

21 / 5.7 *Proposed actions to notify persons affected by CAP

22 / 5.9 *Proposed actions to obtain all applicable Federal, State, and local permits or approvals (DWM, VAPCB, VDH, EPA UIC, etc.)

FOR OFFICE USE ONLY

COMMENTS:

DEFICIENCIES:

REVIEWED BY: DATE:

APPENDIX B

Boring Logs and Well Schematics

BORING LOG SHEET

PAGE 1 OF 1

PROJECT NO: 22950426 FILE NO: UST304-1.LOG BORING NO: MW-8 PROJECT NAME: Little Creek, Tank 304

DATE BEGAN: 5/01/95 DATE FINISHED: 5/01/95 FIELD GEOLOGIST: T. Doyle

DRILLER: M. Belew NORTH: N/A EAST: N/A

GROUND SURFACE ELEV: 0.00 GWL DATE/TIME: 5/01/95 GWL DEPTH: N/A

DRILLING METHOD: 4-1/4" ID HOLLOW-STEM AUGER DRILL EQUIP: Acker GWL EQUIP: N/A

CONTRACTOR: Groundwater Systems Inc. CHECKED BY: N/A

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	VOLATILE ORGANIC VAPORS (ppm) FID	VOLATILE ORGANIC VAPORS (ppm) PID	REMARKS
0.0	0.00	SS1	6-7	1.9		SAND: Medium gray, silty SAND, some grave/stone, fine to medium grained, well sorted, medium dense, FILL, some roots, no odor.	SC		0	Top Soil 0-4".
			9-11							
		SS2	8-9	1.8					36	
			11-12			SAND: Light to medium gray, silty SAND, fine to medium grained, well sorted, orange mottles, loose, trace gravel, no odor.	SC		62	
5.0	-5.00	SS3	3-4	1.6		Color change at 5.0' - Light brown to tan.				
			3-4							
		SS4	4-7	1.0		SAND: Light gray, SAND, fine to medium grained, well sorted, medium to loose, some black staining, strong odor.				
▼			4-5							
						Water table at 8 feet, strong odor.			26	
10.0	-10.00	SS5	4-4	1.8			SP			
			3-3						36	
						Dark gray clay lense, slightly plastic, organic odor, trace sand.				
15.0	-15.00	SS6	2-1	1.9					0	
			2-2			SAND: Dark gray, clayey SAND, fine to medium grained, well sorted, loose.	SM			
						BOTTOM OF BORING AT 18.0'				
	-20.00									

BORING LOG SHEET

PAGE 1 OF 1

PROJECT NO: 22950426 FILE NO: UST304-4.LOG BORING NO: MW-11 PROJECT NAME: Little Creek, Tank 304

DATE BEGAN: 5/01/95 DATE FINISHED: 5/01/95 FIELD GEOLOGIST: T. Doyle

DRILLER: M. Belew NORTH: N/A EAST: N/A

GROUND SURFACE ELEV: 0.00 GWL DATE/TIME: 5/01/95 GWL DEPTH: N/A

DRILLING METHOD: 4-1/4" ID HOLLOW-STEM AUGER DRILL EQUIP: Acker GWL EQUIP: N/A

CONTRACTOR: Groundwater Systems Inc. CHECKED BY: N/A

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	VOLATILE ORGANIC VAPORS (ppm) FID	VOLATILE ORGANIC VAPORS (ppm) PID	REMARKS
0.0	0.00	SS1	10-11 / 12-14	1.1		SAND: Brown, silty SAND, fine to medium grained, subangular, well sorted, some clay, some gravel, medium dense, FILL, orange mottles, dry, no odor.	SM		0	Top Soil 0-4".
		SS2	13-11 / 12-14	1.6		SAND: Light to medium gray, silty SAND, fine to medium grained, subangular, well sorted, orange mottles, loose, dry.			3.7	
5.0	-5.00	SS3	3-3 / 3-5	1.7		Strong petroleum odor and staining, moist.	SM		33	Sample taken from 4'-6'.
		SS4	3-3 / 3-2	1.8		Clay lense with strong odor approximately 0.5 feet thick.			41	Sample taken from 6'-8'.
10.0	-10.00	SS5	1-1 / 1-1	2.0		CLAY: Dark gray, CLAY, moderately plastic, very soft.	CL		0	
15.0	-15.00	SS6	1-1 / 2-2	1.8					0	
	-20.00					BOTTOM OF BORING AT 18.0'				

BORING LOG SHEET

PROJECT NO: 22950426 FILE NO: UST304-5 LOG BORING NO: MW-10 PROJECT NAME: Little Creek, Tank 304

DATE BEGAN: 5/01/95 DATE FINISHED: 5/01/95 FIELD GEOLOGIST: T. Doyle

DRILLER: M. Belew NORTH: N/A EAST: N/A

GROUND SURFACE ELEV: 0.00 GWL DATE/TIME: 5/01/95 GWL DEPTH: N/A

DRILLING METHOD: 4-1/4" ID HOLLOW-STEM AUGER DRILL EQUIP: Acker GWL EQUIP: N/A

CONTRACTOR: Groundwater Systems Inc. CHECKED BY: N/A

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	VOLATILE ORGANIC VAPORS (ppm) FID	VOLATILE ORGANIC VAPORS (ppm) PID	REMARKS
0.0	0.00									
		SS1	2-3	1.1		SAND: Brown to gray, silty SAND, fine to medium grained, subangular, well sorted, medium dense, FILL, some gravel, dry, no odor.			0	Top Soil 0-4".
			4-3							
		SS2	3-3	1.6			SM		0	
			4-3							
5.0	-5.00	SS3	2-2	1.6					0	Sample taken from 6'-8'.
			1-1			SAND: Medium to dark gray, silty SAND, fine to medium grained, subangular, well sorted, loose, moist, slight odor.				
		SS4	1-1	1.5						Sample taken from 9'-11'.
▼			1-1			Slight petroleum odor and staining, moist.				
									3.7	
10.0	-10.00	SS5	1-1	1.9			SM			
			2-1						10.5	
15.0	-15.00	SS6	1-2	1.9					43	
			4-3			CLAY: Dark gray, CLAY, slightly plastic, soft, trace sand, petroleum odor.	CL			
						BOTTOM OF BORING AT 18.0'				
	-20.00									

BORING LOG SHEET

PROJECT NO: 22950426 FILE NO: UST304-2.LOG BORING NO: MW-9 PROJECT NAME: Little Creek, Tank 304

DATE BEGAN: 5/01/95 DATE FINISHED: 5/01/95 FIELD GEOLOGIST: T. Doyle

DRILLER: M. Belew NORTH: N/A EAST: N/A

GROUND SURFACE ELEV: 0.00 GWL DATE/TIME: 5/01/95 GWL DEPTH: N/A

DRILLING METHOD: 4-1/4" ID HOLLOW-STEM AUGER DRILL EQUIP: Acker GWL EQUIP: N/A

CONTRACTOR: Groundwater Systems Inc. CHECKED BY: N/A

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	VOLATILE ORGANIC VAPORS (ppm) FID	VOLATILE ORGANIC VAPORS (ppm) PID	REMARKS
0.0	0.00	SS1	6-6, 7-9	1.4		SAND: Gray to brown, silty SAND, some grave/ stone, fine to medium grained, well sorted, medium dense, FILL, no odor.	SM		0	Top Soil 0-4".
		SS2	12-1, 11-14	1.7		SAND: Light gray, silty SAND, fine to medium grained, well sorted, orange mottles, loose, no odor.	SM		0	
5.0	-5.00	SS3	6-5, 6-14	1.6					0	Sample taken 4'-6'.
		SS4	6-8, 6-6	1.9		SAND: Medium to dark gray, SAND, some silt, fine to medium grained, well sorted, loose, orange mottles, moist, no odor.	SP		0	Sample taken 6'-8'.
10.0	-10.00	SS5	1-1, 2-1	1.9		SAND: Medium to dark gray, clayey SAND, fine to medium grained, subangular, well sorted, loose, wet, no odor.	SC		0	
15.0	-15.00	SS6	1-1, 3-2	1.9		CLAY: Dark gray CLAY, slightly plastic, soft, trace white shells, slight organic odor.	CL		0	
						SAND: Dark gray SAND, fine to medium grained, well sorted, loose, wet, trace clay, no odor.	SM			
	-20.00					BOTTOM OF BORING AT 18.0'				

BORING LOG SHEET

PROJECT NO: 2295042G FILE NO: UST304-3.LOG BORING NO: MW-12 PROJECT NAME: Little Creek, Tank 304

DATE BEGAN: 5/01/95 DATE FINISHED: 5/01/95 FIELD GEOLOGIST: T. Doyle

DRILLER: M. Belew NORTH: N/A EAST: N/A

GROUND SURFACE ELEV: 0.00 GWL DATE/TIME: 5/01/95 GWL DEPTH: N/A

DRILLING METHOD: 4-1/4" ID HOLLOW-STEM AUGER DRILL EQUIP: Acker GWL EQUIP: N/A

CONTRACTOR: Groundwater Systems Inc. CHECKED BY: N/A

ELEV (FT)	DEPTH (FT)	SAMPLE TYPE AND NO	SPT BLOWS PER (0.5')	REC (FT)	PROFILE	DESCRIPTION	USCS	VOLATILE ORGANIC VAPORS (ppm) FID	VOLATILE ORGANIC VAPORS (ppm) PID	REMARKS
0.0	0.00	SS1	8-20	1.4		SAND: Gray silty SAND, some grave/stone, fine grained, subangular, well sorted, dense, FILL, trace mottles, no odor.	SM		0	Top Soil 0-4".
			23-26							
		SS2	24-24	1.8					0	
			20-12							
5.0	-5.00	SS3	6-7	1.9		SAND: Light gray, silty SAND, fine to medium grained, subangular, well sorted, orange mottles, loose, moist, no odor.	SM		0	Sample taken from 4'-6'.
			9-8							
▼		SS4	4-4	2.0						Sample taken from 6'-8'.
			3-5							
									0	
10.0	-10.00	SS5	2-3	1.9		SAND: Dark gray, clayey SAND, fine to medium grained, subangular, well sorted, loose, moist, no odor.	SC		0	
			1-2							
						SAND: Medium gray, silty SAND, fine to medium grained, subangular, well sorted, orange mottles, loose, moist, no odor.	SM			
15.0	-15.00	SS6	1-1	2.0					0	
			1-1			CLAY: Dark gray CLAY, slightly plastic, soft, slight organic odor.	CL			
						BOTTOM OF BORING AT 18.0'				
	-20.00									

MW NO. MW-8

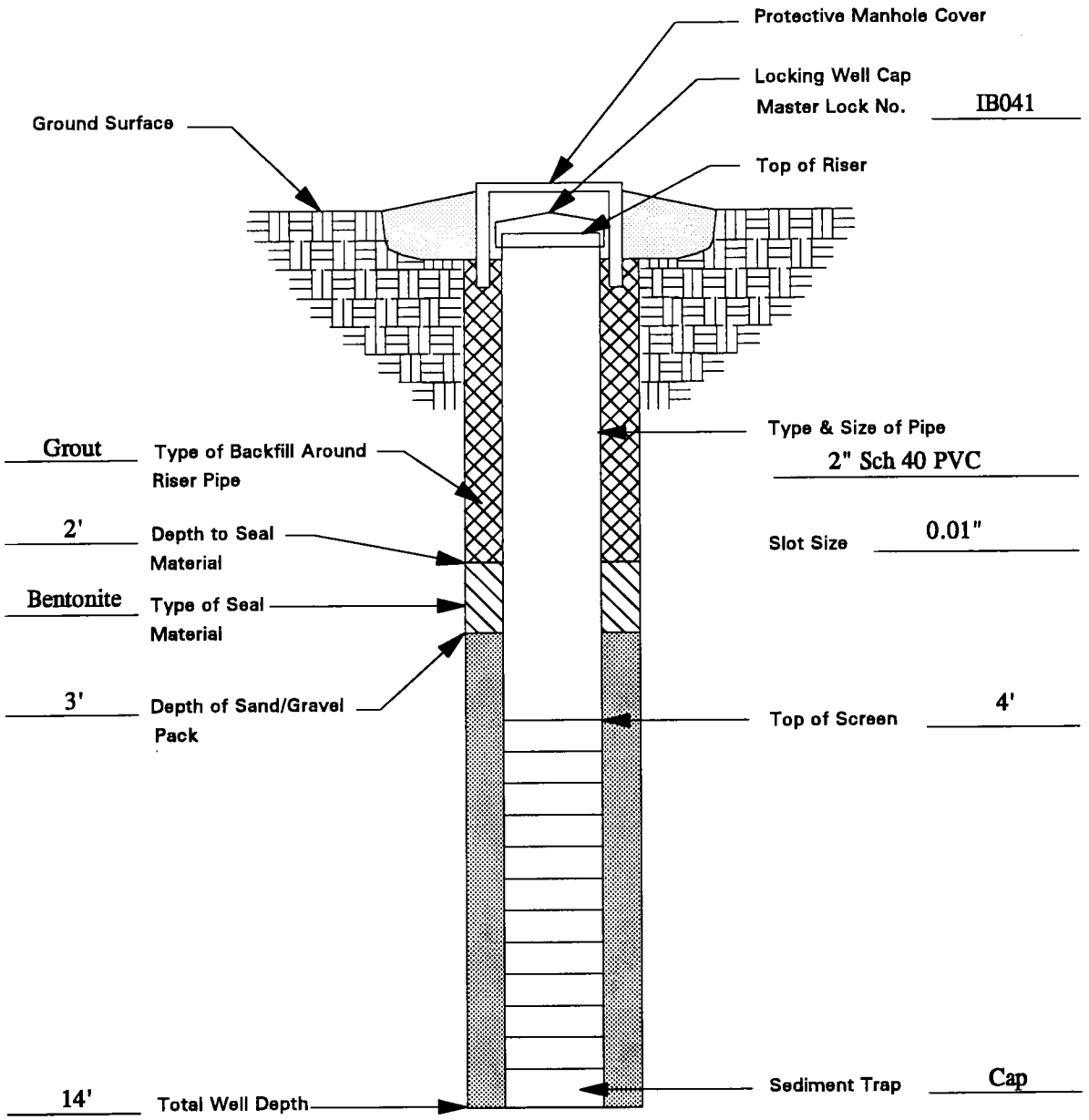
PROJECT Little Creek Tank 304

TYPE OF RIG Mobile

DATE 5/1/95

INSTALLED BY Rock-Ray

FILE NAME 5252-1.mc



INSPECTED BY _____

Environmental Science & Engineering	Date 6/19/95	Scale NTS	Title TYPICAL MONITOR WELL	
	Drawn By mbc	Approved By		
	Job No. 2295122	Dwg/Rev No D-1.DRW	Client DME	Figure

MW NO. MW-9

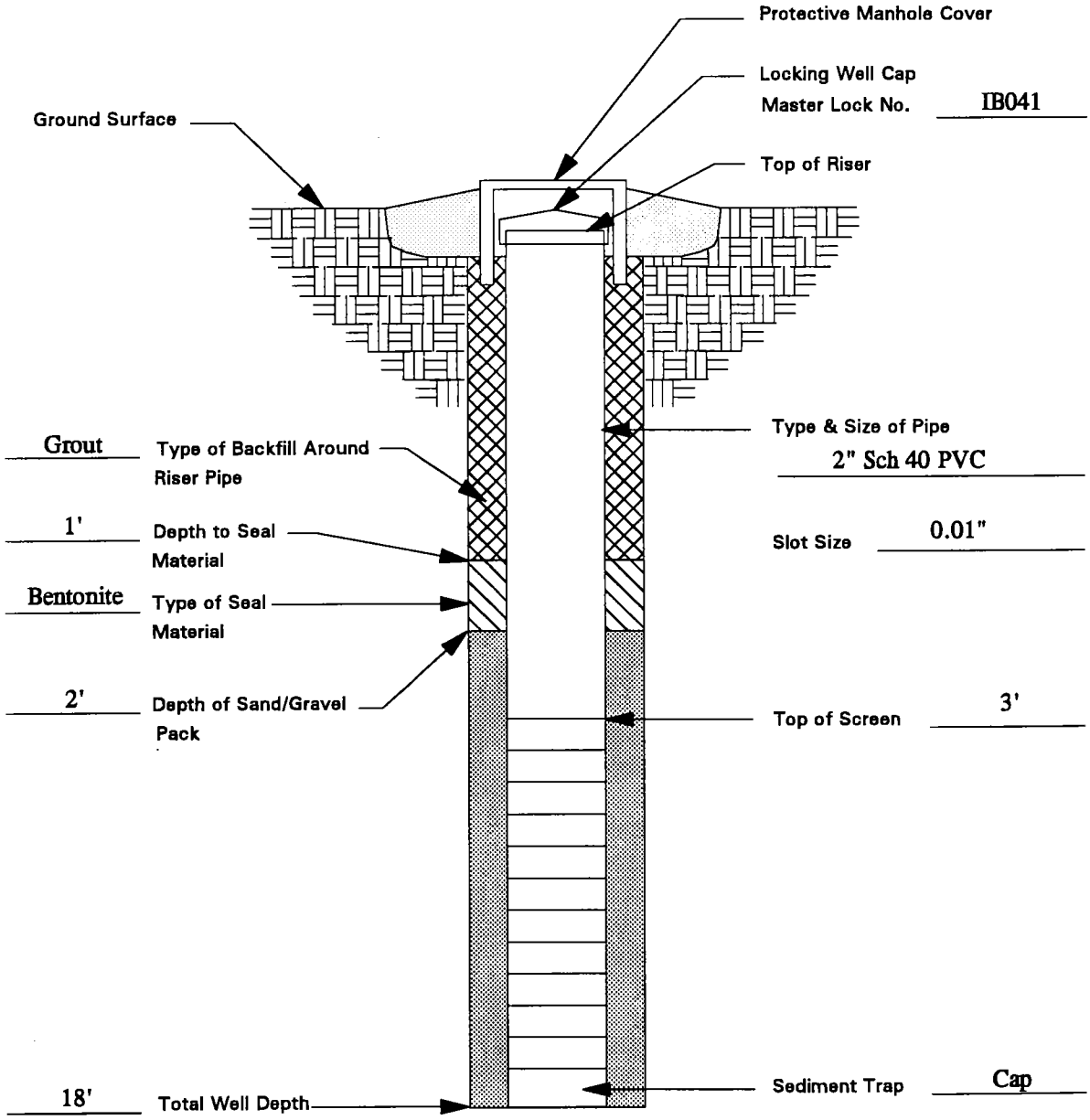
PROJECT Little Creek Tank 304

TYPE OF RIG Mobile

DATE 5/1/95

INSTALLED BY Rock-Ray

FILE NAME 5252-2.mc



INSPECTED BY _____

Environmental Science & Engineering	Date 6/19/95	Scale NTS	Title TYPICAL MONITOR WELL	
	Drawn By mbc	Approved By		
	Job No. 2295042G	Dwg/Rev No D-1.DRW	Client LANTDIV	Figure

MW NO. MW-10

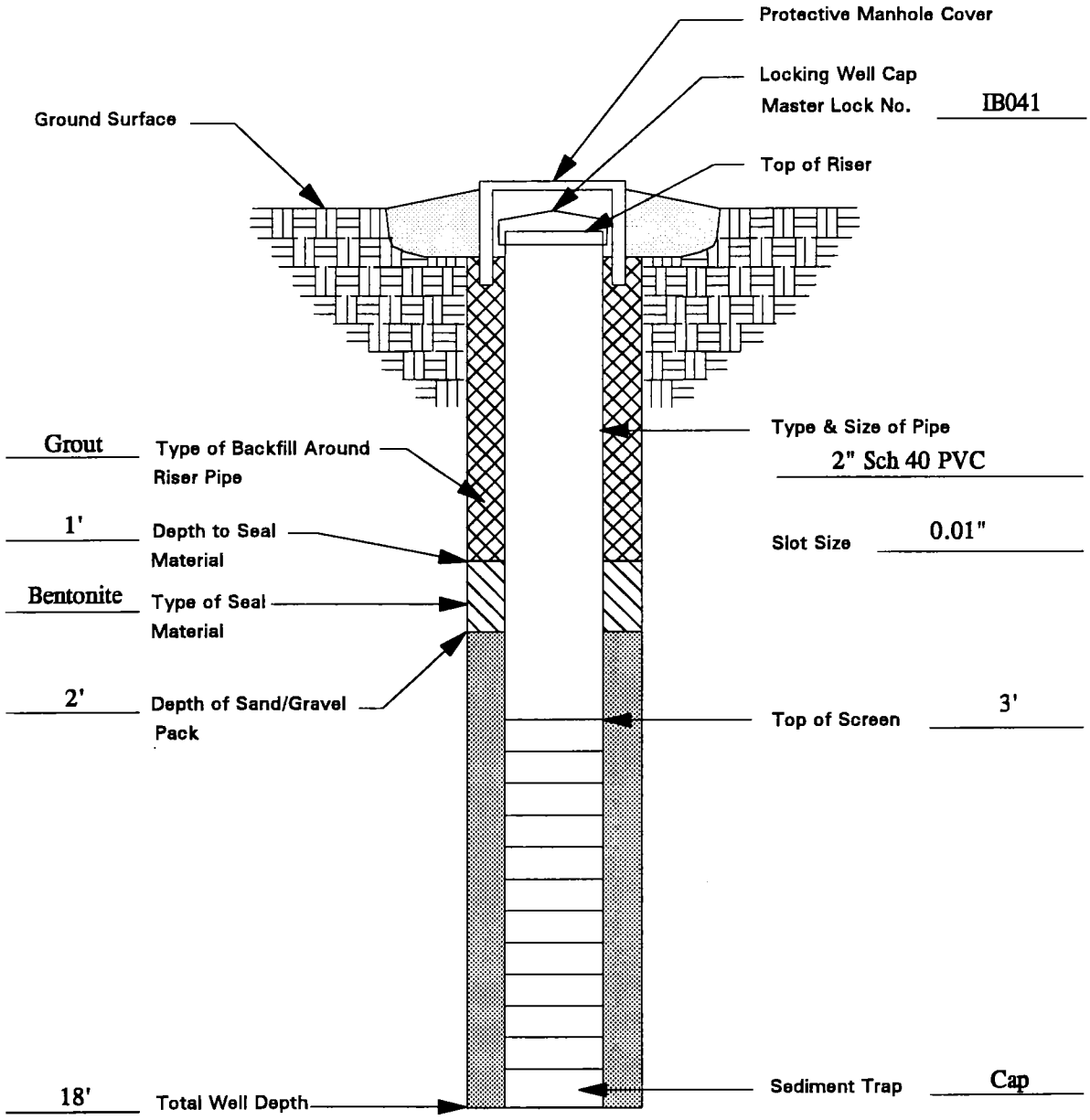
PROJECT Little Creek Tank 304

TYPE OF RIG Mobile

DATE 5/1/95

INSTALLED BY Rock-Ray

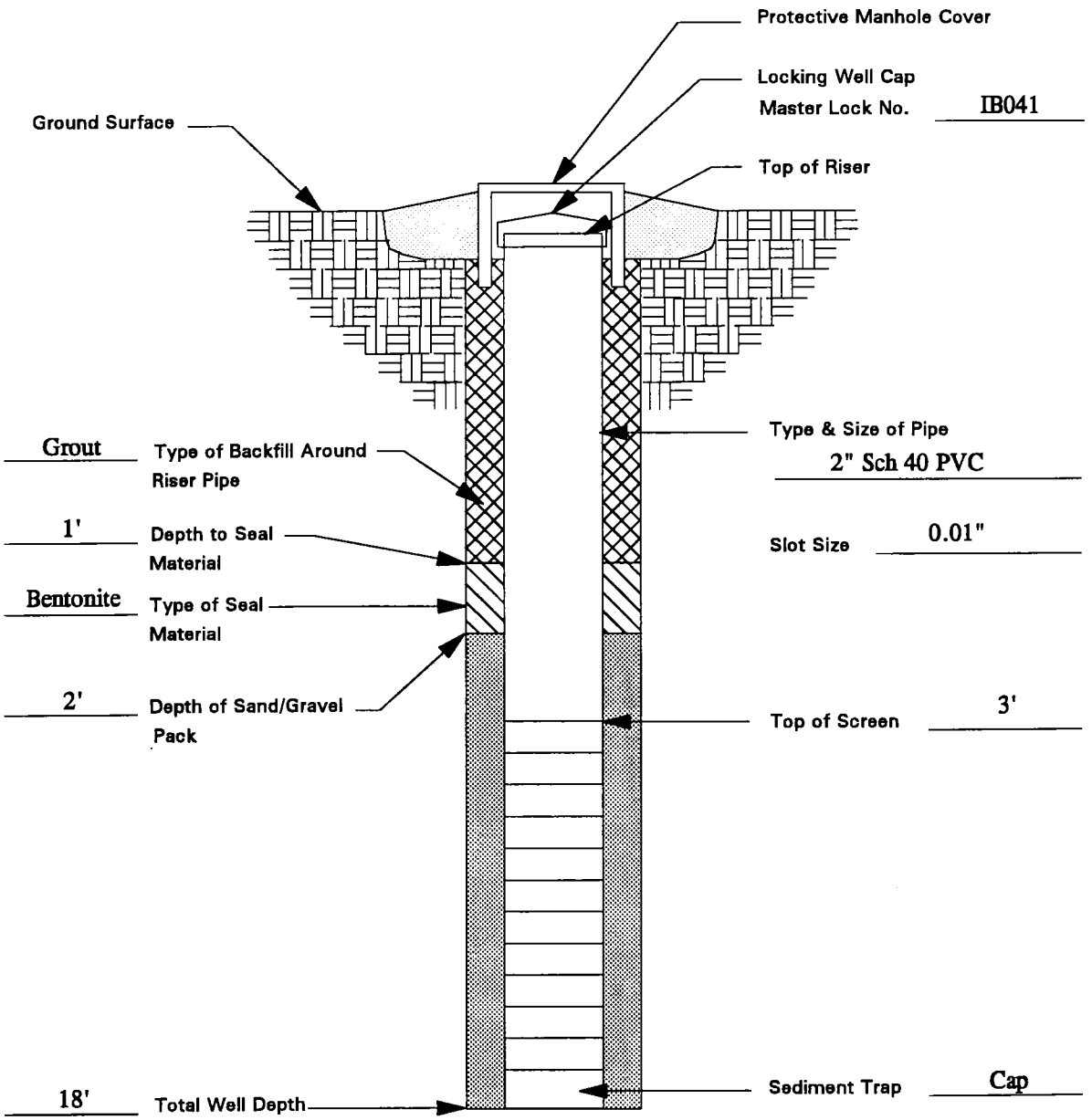
FILE NAME 5252-3.mc



INSPECTED BY _____

Environmental Science & Engineering	Date 6/19/95	Scale NTS	Title TYPICAL MONITOR WELL	
	Drawn By mbc	Approved By		
	Job No. 2295042G	Dwg/Rev No D-1.DRW	Client LANTDIV	Figure

MW NO.	MW-11	DATE	5/1/95
PROJECT	Little Creek Tank 304	INSTALLED BY	Rock-Ray
TYPE OF RIG	Mobile	FILE NAME	5252-4.mc



INSPECTED BY _____

Environmental Science & Engineering	Date 6/19/95	Scale NTS	Title **TYPICAL MONITOR WELL**	
	Drawn By mbc	Approved By		
	Job No. 2295042G	Dwg/Rev No D-1.DRW	Client LANTDIV	Figure

MW NO. MW-12

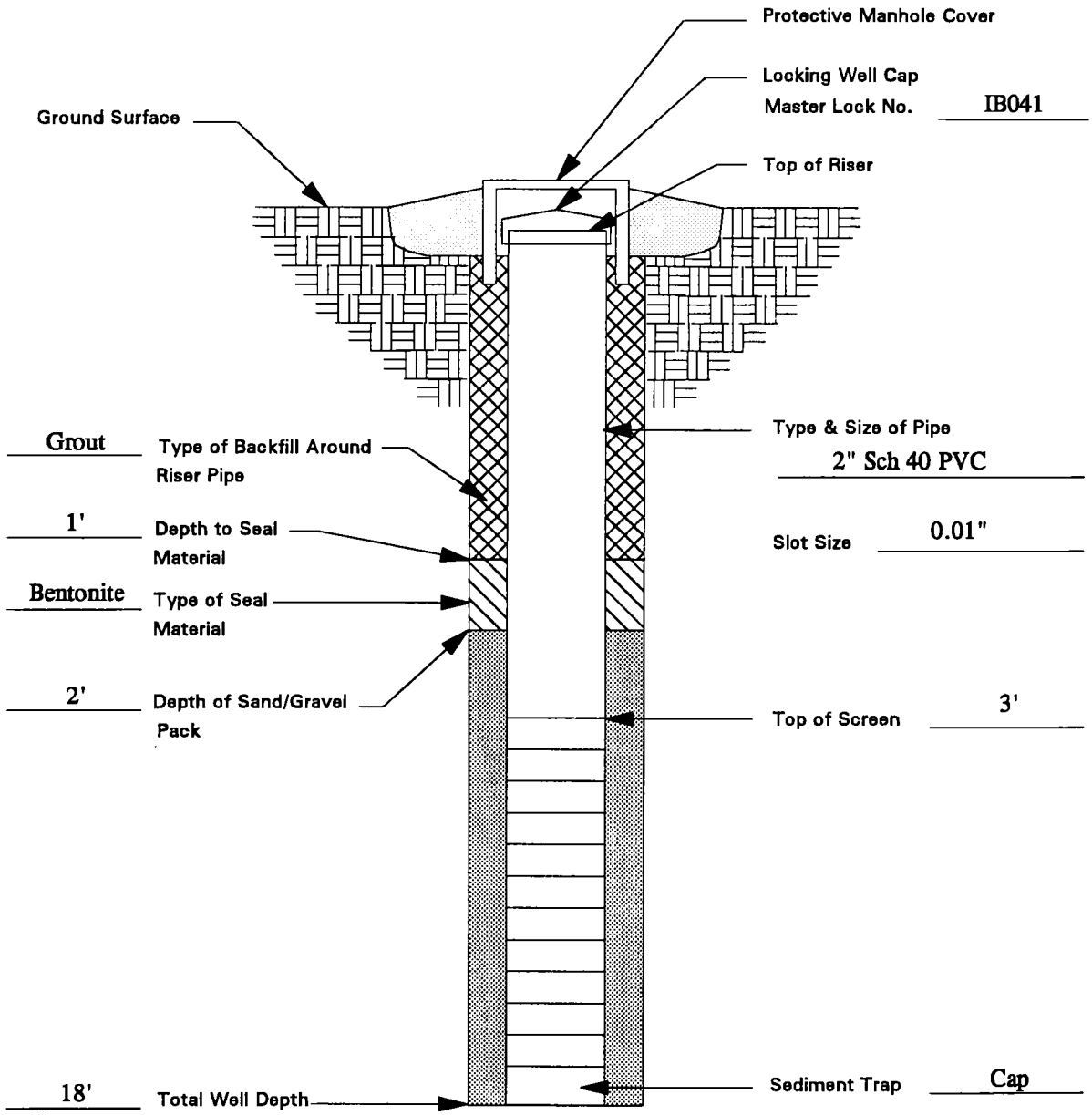
PROJECT Little Creek Tank 304

TYPE OF RIG Mobile

DATE 5/1/95

INSTALLED BY Rock-Ray

FILE NAME 5252-5.mc



INSPECTED BY _____

Environmental Science & Engineering	Date 6/19/95	Scale NTS	Title **TYPICAL MONITOR WELL**	
	Drawn By mbc	Approved By		
	Job No. 2295042G	Dwg/Rev No D-1.DRW	Client LANTDIV	Figure

APPENDIX C

Laboratory Analytical Report

Environmental
Science &
Engineering, Inc.

8901 North Industrial Road
Peoria, Illinois 61615-1589

Phone (309) 692-4422
Lab Fax (309) 692-5232

An **IEPA** Contract Laboratory

June 13, 1995

Mr. Harold Thurston
Environmental Science & Engineering, Inc.
230 Clearfield Ave., Suite 114
Virginia Beach, VA 23462

Dear Harold,

Environmental Science & Engineering, Inc. (ESE) appreciates the opportunity to provide the attached report of analyses for ESE sample delivery group #21272, received 05/10/95 by our laboratory. This deliverable includes tabulated results, chain-of-custody, dates report, and QC summary.

Should you have any questions regarding this data, please contact me at (309) 693-5623.

Sincerely,

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

Barbara G. Raya-Hash
Senior Project Manager

Attachments

Environmental Science & Engineering 06/13/95 STATUS :FINAL PAGE 1
PROJECT NUMBER 189-5041 PROJECT NAME ESE TIDEWATER/2295042G
FIELD GROUP 21272 LAB COORDINATOR BARBARA RAYA-HASH

CLIENT SAMPLE ID'S:			REPORTING LIMIT	MW2	MW3	MW4	MW5	MW6	MW7	MW1
ESE FIELD GROUP:				21272	21272	21272	21272	21272	21272	21272
ESE SEQUENCE #:				1	2	3	4	5	6	7
DATE COLLECTED:				05/08/95	05/08/95	05/08/95	05/08/95	05/08/95	05/09/95	05/09/95
TIME COLLECTED:				13:57	13:15	14:42	15:31	16:08	09:25	12:45
PARAMETERS	UNITS	METHOD								
Benzene	UG/L	8020	1	<1	<1	<1	<1	<1	<1	<1
Toluene	UG/L	8020	1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	UG/L	8020	1	<1	<1	<1	<1	<1	<1	3
Xylenes, Total	UG/L	8020	1	<1	<1	<1	<1	<1	<1	17
Methyl-tert-butyl-ether	UG/L	8020	5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	UG/L	8020	5	<5	<5	<5	<5	<5	<5	240
TPH, as diesel	MG/L	8015/MOD	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TPH, as gasoline	MG/L	8015/MOD	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TPH, as jet fuel	MG/L	8015/MOD	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Environmental Science & Engineering 06/13/95 STATUS :FINAL PAGE 2
PROJECT NUMBER 189-5041 PROJECT NAME ESE TIDEWATER/2295042G
FIELD GROUP 21272 LAB COORDINATOR BARBARA RAYA-HASH

CLIENT SAMPLE ID'S:			REPORTING LIMIT	MW8	MW9	MW10	MW11	MW12	DUP	EQUIPBLANK
ESE FIELD GROUP:				21272	21272	21272	21272	21272	21272	21272
ESE SEQUENCE #:				8	9	10	11	12	13	14
DATE COLLECTED:				05/09/95	05/09/95	05/09/95	05/09/95	05/09/95	05/09/95	05/09/95
TIME COLLECTED:				09:53	10:35	11:00	11:30	12:00		
PARAMETERS	UNITS	METHOD								
Benzene	UG/L	8020	1	<1	<1	<1	<1	<1	<1	<1
Toluene	UG/L	8020	1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	UG/L	8020	1	<1	<1	<1	<1	<1	<1	<1
Xylenes, Total	UG/L	8020	1	<1	<1	<1	<1	<1	<1	<1
Methyl-tert-butyl-ether	UG/L	8020	5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	UG/L	8020	10	31	<5	6	<5	<5	19	<5
TPH, as diesel	MG/L	8015/MOD	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TPH, as gasoline	MG/L	8015/MOD	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TPH, as jet fuel	MG/L	8015/MOD	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
bis(2-Chloroethyl) ether	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
1,3-Dichlorobenzene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
1,4-Dichlorobenzene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Benzyl Alcohol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
1,2-Dichlorobenzene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2,2'-oxybis(1-Chloropropane)	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
n-Nitroso-di-n-propylamine	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Hexachloroethane	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Nitrobenzene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Isophorone	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
bis(2-Chloroethoxy)methane	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
1,2,4-Trichlorobenzene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Naphthalene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
4-Chloroaniline	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Hexachlorobutadiene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2-Methlynaphthalene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10

NRQ - Analysis not requested.

CLIENT SAMPLE ID'S:			REPORTING LIMIT	MW8	MW9	MW10	MW11	MW12	DUP	EQUIPBLANK
ESE FIELD GROUP:				21272	21272	21272	21272	21272	21272	21272
ESE SEQUENCE #:				8	9	10	11	12	13	14
DATE COLLECTED:				05/09/95	05/09/95	05/09/95	05/09/95	05/09/95	05/09/95	05/09/95
TIME COLLECTED:				09:53	10:35	11:00	11:30	12:00		
PARAMETERS	UNITS	METHOD								
Hexachlorocyclopentadiene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2-Chloronaphthalene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2-Nitroaniline	UG/L	8270	50	<50	NRQ	<50	<50	NRQ	<50	<50
Dimethylpthalate	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Acenaphthylene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2,6-Dinitrotoluene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
3-Nitroaniline	UG/L	8270	50	<50	NRQ	<50	<50	NRQ	<50	<50
Acenaphthene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Dibenzofuran	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2,4-Dinitrotoluene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Diethylphthalate	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
4-Chlorophenyl-phenylether	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Fluorene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
4-Nitroaniline	UG/L	8270	50	<50	NRQ	<50	<50	NRQ	<50	<50
n-Nitrosodiphenylamine	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
4-Bromophenyl-phenylether	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Hexachlorobenzene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Phenanthrene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Anthracene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
di-n-Butylphthalate	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Fluoranthene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Pyrene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Butylbenzylphthalate	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
3,3'-Dichlorobenzidine	UG/L	8270	20	<20	NRQ	<20	<20	NRQ	<20	<20
Benzo(a)anthracene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Chrysene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Bis (2-ethylhexyl) phthalate	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	14	430
di-n-Octylphthalate	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	10	<10
Benzo(b)fluoranthene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Benzo(k)fluoranthene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10

NRQ - Analysis not requested.

PROJECT NUMBER 189-5041 PROJECT NAME ESE TIDEWATER/2295042G
FIELD GROUP 21272 LAB COORDINATOR BARBARA RAYA-HASH

CLIENT SAMPLE ID'S:			REPORTING LIMIT	MW8	MW9	MW10	MW11	MW12	DUP	EQUIPBLANK
ESE FIELD GROUP:				21272	21272	21272	21272	21272	21272	21272
ESE SEQUENCE #:				8	9	10	11	12	13	14
DATE COLLECTED:				05/09/95	05/09/95	05/09/95	05/09/95	05/09/95	05/09/95	05/09/95
TIME COLLECTED:				09:53	10:35	11:00	11:30	12:00		
PARAMETERS	UNITS	METHOD								
Benzo(a)pyrene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Indeno(1,2,3-cd)pyrene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Dibenz(a,h)anthracene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Benzo(g,h,i)perylene	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Phenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2-Chlorophenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2-Methylphenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
4-Methylphenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2-Nitrophenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2,4-Dimethylphenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
Benzoic Acid	UG/L	8270	50	<50	NRQ	<50	<50	NRQ	<50	<50
2,4-Dichlorophenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
4-Chloro-3-methylphenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2,4,6-Trichlorophenol	UG/L	8270	10	<10	NRQ	<10	<10	NRQ	<10	<10
2,4,5-Trichlorophenol	UG/L	8270	50	<10	NRQ	<10	<10	NRQ	<10	<10
2,4-Dinitrophenol	UG/L	8270	50	<50	NRQ	<50	<50	NRQ	<50	<50
4-Nitrophenol	UG/L	8270	50	<50	NRQ	<50	<50	NRQ	<50	<50
4,6-dinitro-2-methylphenol	UG/L	8270	50	<50	NRQ	<50	<50	NRQ	<50	<50
Pentachlorophenol	UG/L	8270	50	<50	NRQ	<50	<50	NRQ	<50	<50

NRQ - Analysis not requested.

Environmental Science & Engineering 06/13/95 STATUS :FINAL PAGE 5
PROJECT NUMBER 189-5041 PROJECT NAME ESE TIDEWATER/2295042G
FIELD GROUP 21272 LAB COORDINATOR BARBARA RAYA-HASH

CLIENT SAMPLE ID'S:			REPORTING LIMIT	TRIP
ESE FIELD GROUP:				21272
ESE SEQUENCE #:				15
DATE COLLECTED:				05/09/95
TIME COLLECTED:				
PARAMETERS	UNITS	METHOD		
Benzene	UG/L	8020	1	<1
Toluene	UG/L	8020	1	<1
Ethylbenzene	UG/L	8020	1	<1
Xylenes, Total	UG/L	8020	1	<1
Methyl-tert-butyl-ether	UG/L	8020	5	<5
Naphthalene	UG/L	8020	5	<5
TPH, as diesel	MG/L	8015/MOD	0.5	<0.5
TPH, as gasoline	MG/L	8015/MOD	0.5	<0.5
TPH, as jet fuel	MG/L	8015/MOD	0.5	<0.5

ESE BATCH : P28213
ANALYSIS : 8020

QC TYPE : FDER/SW
ANALYST : LORI RITTENHOUSE
EXTRACTOR :
DATA ENTRY : LORI RITTENHOUSE

REPORT DATE/TIME : 06/13/95 14:48:54
ANALYSIS DATE : 05/10/95
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
8020

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
21272	CLIENT SPECIFI	189-5041	ESE TIDEWATER/2295042G	BARBARA RAYA-HASH

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
21272*1	MW2	05/11/95	11:42AM
21272*2	MW3	05/11/95	12:22PM
21272*3	MW4	05/11/95	01:03PM
21272*4	MW5	05/11/95	01:44PM
21272*5	MW6	05/11/95	02:25PM
21272*6	MW7	05/11/95	03:05PM
21272*10	MW10	05/11/95	03:46PM
21272*7	MW1	05/12/95	01:55PM
21272*8	MW8	05/12/95	02:36PM
21272*9	MW9	05/12/95	03:17PM
21272*11	MW11	05/12/95	03:57PM
21272*12	MW12	05/12/95	05:19PM
21272*13	DUP	05/12/95	07:21PM
21272*14	EQUIPBLANK	05/12/95	08:01PM
21272*15	TRIP	05/12/95	08:42PM

ESE BATCH : P28213

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND	DET LMT
05/10/95	MB*HP7_A0006*2	34030*8020-P	Benzene	UG/L	ND	1.00
05/10/95	MB*HP7_A0006*2	34010*8020-P	Toluene	UG/L	0.12	1.00
05/10/95	MB*HP7_A0006*2	34371*8020-P	Ethylbenzene	UG/L	0.07	1
05/10/95	MB*HP7_A0006*2	97234*8020-P	m-and/or p-Xylene	UG/L	ND	1
05/10/95	MB*HP7_A0006*2	77135*8020-P	o-Xylene	UG/L	0.09	1
05/10/95	MB*HP7_A0006*2	46491*8020-P	Methyl-tert-butyl-ether	UG/L	NA	5.00
05/10/95	MB*HP7_A0006*2	34695*8020-P	Naphthalene	UG/L	NA	5.00
05/11/95	MB*HP7_A0008*1	34030*8020-P	Benzene	UG/L	ND	1.00
05/11/95	MB*HP7_A0008*1	34010*8020-P	Toluene	UG/L	0.19	1.00
05/11/95	MB*HP7_A0008*1	34371*8020-P	Ethylbenzene	UG/L	ND	1
05/11/95	MB*HP7_A0008*1	97234*8020-P	m-and/or p-Xylene	UG/L	ND	1
05/11/95	MB*HP7_A0008*1	77135*8020-P	o-Xylene	UG/L	0.1	1
05/11/95	MB*HP7_A0008*1	46491*8020-P	Methyl-tert-butyl-ether	UG/L	ND	5.00
05/11/95	MB*HP7_A0008*1	34695*8020-P	Naphthalene	UG/L	2.06	5.00
05/12/95	MB*HP7_A0010*2	34030*8020-P	Benzene	UG/L	ND	1.00
05/12/95	MB*HP7_A0010*2	34010*8020-P	Toluene	UG/L	0.01	1.00
05/12/95	MB*HP7_A0010*2	34371*8020-P	Ethylbenzene	UG/L	ND	1
05/12/95	MB*HP7_A0010*2	97234*8020-P	m-and/or p-Xylene	UG/L	ND	1
05/12/95	MB*HP7_A0010*2	77135*8020-P	o-Xylene	UG/L	ND	1
05/12/95	MB*HP7_A0010*2	46491*8020-P	Methyl-tert-butyl-ether	UG/L	ND	5.00
05/12/95	MB*HP7_A0010*2	34695*8020-P	Naphthalene	UG/L	1.64	5.00
05/15/95	MB*HP7_A0012*1	34030*8020-P	Benzene	UG/L	ND	1.00
05/15/95	MB*HP7_A0012*1	34010*8020-P	Toluene	UG/L	0.01	1.00
05/15/95	MB*HP7_A0012*1	34371*8020-P	Ethylbenzene	UG/L	ND	1
05/15/95	MB*HP7_A0012*1	97234*8020-P	m-and/or p-Xylene	UG/L	ND	1
05/15/95	MB*HP7_A0012*1	77135*8020-P	o-Xylene	UG/L	0.1	1
05/15/95	MB*HP7_A0012*1	46491*8020-P	Methyl-tert-butyl-ether	UG/L	ND	5.00
05/15/95	MB*HP7_A0012*1	34695*8020-P	Naphthalene	UG/L	2.09	5.00

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/10/95	SP*HP7_A0006*1	34030*8020-P	Benzene	UG/L	50.0	49.4	98.8	68-129
05/10/95	SP*HP7_A0006*1	34010*8020-P	Toluene	UG/L	50.0	49.4	98.8	65-125
05/11/95	SP*HP7_A0008*1	34030*8020-P	Benzene	UG/L	50.0	52.4	104.8	68-129
05/11/95	SP*HP7_A0008*1	34010*8020-P	Toluene	UG/L	50.0	52.2	104.4	65-125
05/12/95	SP*HP7_A0010*2	34030*8020-P	Benzene	UG/L	50.0	52.1	104.2	68-129
05/12/95	SP*HP7_A0010*2	34010*8020-P	Toluene	UG/L	50.0	51.7	103.4	65-125
05/15/95	SP*HP7_A0012*1	34030*8020-P	Benzene	UG/L	50.0	53.0	106.0	68-129
05/15/95	SP*HP7_A0012*1	34010*8020-P	Toluene	UG/L	50.0	52.0	104.0	65-125

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT	RPD
05/11/95	SPM1*21272*10	34030*8020-P	Benzene	UG/L	50.0	49.5	99.0	68-129	
05/11/95	SPM1*21272*10	34010*8020-P	Toluene	UG/L	50.0	49.0	98.0	65-125	
05/11/95	SPM2*21272*10	34030*8020-P	Benzene	UG/L	50.0	45.1	90.2	68-129	9.30
05/11/95	SPM2*21272*10	34010*8020-P	Toluene	UG/L	50.0	45.3	90.6	65-125	7.80

ESE BATCH : P28213

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/10/95	MB*HP7_A0006*2	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	38	95	53-126
05/10/95	SP*HP7_A0006*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/10/95	DA*21263*2	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	40	100	53-126
05/11/95	DA*21263*3	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	36	90	53-126
05/11/95	DA*21226*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	36	90	53-126
05/11/95	DA*21264*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	36	90	53-126
05/11/95	CCS*HP7_A0006*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	40	100	53-126
05/11/95	CCS*HP7_A0008*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	43	108	53-126
05/11/95	MB*HP7_A0008*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	41	103	53-126
05/11/95	SP*HP7_A0008*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	40	100	53-126
05/11/95	DA*21272*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	38	95	53-126
05/11/95	DA*21272*2	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/11/95	DA*21272*3	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	35	88	53-126
05/11/95	DA*21272*4	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/11/95	DA*21272*5	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	37	93	53-126
05/11/95	DA*21272*6	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/11/95	DA*21272*10	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	37	93	53-126
05/11/95	SPM1*21272*10	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	36	90	53-126
05/11/95	SPM2*21272*10	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	36	90	53-126
05/11/95	CCS*HP7_A0008*3	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	37	93	53-126
05/12/95	CCS*HP7_A0010*2	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/12/95	MB*HP7_A0010*2	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/12/95	SP*HP7_A0010*2	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	41	103	53-126
05/12/95	DA*21272*7	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	37	93	53-126
05/12/95	DA*21272*8	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	35	88	53-126
05/12/95	DA*21272*9	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	33	83	53-126
05/12/95	DA*21272*11	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	33	83	53-126
05/12/95	DA*21272*12	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	34	85	53-126
05/12/95	DA*21272*13	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	34	85	53-126
05/12/95	DA*21272*14	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	34	85	53-126
05/12/95	DA*21272*15	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	34	85	53-126
05/13/95	CCS*HP7_A0010*3	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	37	93	53-126
05/15/95	CCS*HP7_A0012*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	42	105	53-126
05/15/95	MB*HP7_A0012*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	41	103	53-126
05/15/95	SP*HP7_A0012*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/16/95	CCS*HP7_A0012*3	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	35	88	53-126

ESE BATCH : P28213

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: P28213 Analysis Date: 05/10/95 Analyst: LORI RITTENHOUSE

		"Exceptions"	
	Yes	No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
No. of calibration standards present acceptable?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

BATCH OVERRIDE BY:

FINALIZED BY: ROBERT PADDISON 3540

ESE BATCH : P28207
ANALYSIS : 8015/MOD

QC TYPE : FDER/SW
ANALYST : BRENT DONALSON
EXTRACTOR : BRENT DONALSON
DATA ENTRY :

REPORT DATE/TIME : 06/13/95 14:50:15
ANALYSIS DATE : 05/11/95
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
8015

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
21272	CLIENT SPECIFI	189-5041	ESE TIDEWATER/2295042G	BARBARA RAYA-HASH

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
21272*1	MW2	05/11/95	
21272*2	MW3	05/11/95	
21272*3	MW4	05/11/95	
21272*4	MW5	05/11/95	
21272*5	MW6	05/11/95	
21272*6	MW7	05/11/95	
21272*7	MW1	05/11/95	
21272*8	MW8	05/11/95	
21272*9	MW9	05/11/95	
21272*10	MW10	05/11/95	
21272*11	MW11	05/11/95	
21272*12	MW12	05/11/95	
21272*13	DUP	05/11/95	
21272*14	EQUIPBLANK	05/11/95	
21272*15	TRIP	05/11/95	

ESE BATCH : P28207

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND	DET LMT
05/11/95	MB*95-989*1	96018*8015M-P	TPH, as diesel	MG/L	ND	0.50
05/11/95	MB*95-989*1	96017*8015M-P	TPH, as gasoline	MG/L	ND	0.50
05/11/95	MB*95-989*1	96016*8015M-P	TPH, as jet fuel	MG/L	ND	0.50
05/11/95	MB*95-989*1	801501*8015M-P	TPH, as unidentified hydrocarb	MG/L	ND	0.50
05/11/95	MB*95-989*1	801505*8015M-P	TPH, as motor oil	MG/L	ND	5.00
05/11/95	MB*95-989*1	801503*8015M-P	TPH, as mineral spirits	MG/L	ND	0.50

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/11/95	SP1*95-898*1	96018*8015M-P	TPH, as diesel	MG/L	1.00	0.68	68.0	51-123

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT	RPD
05/12/95	SPM1*21245*2	96018*8015M-P	TPH, as diesel	MG/L	1.00	0.54	54.0	51-123	
05/12/95	SPM2*21245*2	96018*8015M-P	TPH, as diesel	MG/L	1.00	0.62	62.0	51-123	13.8

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/11/95	MB*95-989*1	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	43-143
05/11/95	DA*21272*1	940606*SUR	Pentacosane	MG/L	0.13	0.08	61.5	43-143
05/11/95	DA*21272*2	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	43-143
05/11/95	DA*21272*3	940606*SUR	Pentacosane	MG/L	0.13	0.06	46.2	43-143
05/11/95	DA*21272*4	940606*SUR	Pentacosane	MG/L	0.13	0.11	84.6	43-143
05/11/95	DA*21272*5	940606*SUR	Pentacosane	MG/L	0.13	0.08	61.5	43-143
05/11/95	DA*21272*6	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	43-143
05/11/95	DA*21272*7	940606*SUR	Pentacosane	MG/L	0.13	0.07	53.8	43-143
05/11/95	DA*21272*8	940606*SUR	Pentacosane	MG/L	0.13	0.11	84.6	43-143
05/11/95	DA*21272*9	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	43-143
05/11/95	DA*21272*10	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	43-143
05/11/95	DA*21272*11	940606*SUR	Pentacosane	MG/L	0.13	0.11	84.6	43-143
05/11/95	DA*21272*12	940606*SUR	Pentacosane	MG/L	0.13	0.11	84.6	43-143
05/11/95	DA*21272*13	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	43-143
05/11/95	DA*21272*14	940606*SUR	Pentacosane	MG/L	0.13	0.13	100.0	43-143
05/11/95	DA*21272*15	940606*SUR	Pentacosane	MG/L	0.13	0.13	100.0	43-143
05/11/95	DA*21245*2	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	43-143
05/11/95	DA*21263*2	940606*SUR	Pentacosane	MG/L	0.13	0.09	69.2	43-143
05/11/95	DA*21264*1	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	43-143
05/12/95	SPM1*21245*2	940606*SUR	Pentacosane	MG/L	0.13	0.07	53.8	43-143
05/12/95	SPM2*21245*2	940606*SUR	Pentacosane	MG/L	0.13	0.10	76.9	43-143
05/11/95	SP1*95-898*1	940606*SUR	Pentacosane	MG/L	0.13	0.10	76.9	43-143

ESE BATCH : P28207

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: P28207 Analysis Date: 05/11/95 Analyst: BRENT DONALSON

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

BATCH OVERRIDE BY: WILLIAM FRANEY 5985

FINALIZED BY: WILLIAM FRANEY 5985

ESE BATCH : P28608
ANALYSIS : 8270

QC TYPE : FDER/SW
ANALYST : DOUG HAFLEY
EXTRACTOR : KRISTINA ERICCSON
DATA ENTRY : TODD PETERSON

REPORT DATE/TIME : 06/13/95 14:50:55
ANALYSIS DATE : 05/19/95
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
8270

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
21272	CLIENT SPECIFI	189-5041	ESE TIDEWATER/2295042G	BARBARA RAYA-HASH

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
21272*8	MW8	05/19/95	06:12PM
21272*10	MW10	05/19/95	07:06PM
21272*11	MW11	05/19/95	07:58PM
21272*13	DUP	05/19/95	08:51PM
21272*14	EQUIPBLANK	05/19/95	09:44PM

ESE BATCH : P28608

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND	DET LMT
05/19/95	MB*909*1	34273*8270/3510-P	bis(2-Chloroethyl) ether	UG/L	ND	10
05/19/95	MB*909*1	34566*8270/3510-P	1,3-Dichlorobenzene	UG/L	ND	10
05/19/95	MB*909*1	34571*8270/3510-P	1,4-Dichlorobenzene	UG/L	ND	10
05/19/95	MB*909*1	77147*8270/3510-P	Benzyl Alcohol	UG/L	ND	10
05/19/95	MB*909*1	34536*8270/3510-P	1,2-Dichlorobenzene	UG/L	ND	10
05/19/95	MB*909*1	34283*8270/3510-P	2,2'-oxybis(1-Chloropropane)	UG/L	ND	10.00
05/19/95	MB*909*1	34428*8270/3510-P	n-Nitroso-di-n-propylamine	UG/L	ND	10
05/19/95	MB*909*1	34396*8270/3510-P	Hexachloroethane	UG/L	ND	10
05/19/95	MB*909*1	34447*8270/3510-P	Nitrobenzene	UG/L	ND	10
05/19/95	MB*909*1	34408*8270/3510-P	Isophorone	UG/L	ND	10
05/19/95	MB*909*1	34278*8270/3510-P	bis(2-Chloroethoxy)methane	UG/L	ND	10
05/19/95	MB*909*1	34551*8270/3510-P	1,2,4-Trichlorobenzene	UG/L	ND	10
05/19/95	MB*909*1	34696*8270/3510-P	Naphthalene	UG/L	ND	10
05/19/95	MB*909*1	99075*8270/3510-P	4-Chloroaniline	UG/L	ND	10
05/19/95	MB*909*1	34391*8270/3510-P	Hexachlorobutadiene	UG/L	ND	10
05/19/95	MB*909*1	77416*8270/3510-P	2-Methlynaphthalene	UG/L	ND	10
05/19/95	MB*909*1	34386*8270/3510-P	Hexachlorocyclopentadiene	UG/L	ND	10
05/19/95	MB*909*1	34581*8270/3510-P	2-Chloronaphthalene	UG/L	ND	10
05/19/95	MB*909*1	99077*8270/3510-P	2-Nitroaniline	UG/L	ND	50
05/19/95	MB*909*1	34341*8270/3510-P	Dimethylpthalate	UG/L	ND	10
05/19/95	MB*909*1	34200*8270/3510-P	Acenaphthylene	UG/L	ND	10
05/19/95	MB*909*1	34626*8270/3510-P	2,6-Dinitrotoluene	UG/L	ND	10
05/19/95	MB*909*1	99078*8270/3510-P	3-Nitroaniline	UG/L	ND	50
05/19/95	MB*909*1	34205*8270/3510-P	Acenaphthene	UG/L	ND	10
05/19/95	MB*909*1	81302*8270/3510-P	Dibenzofuran	UG/L	ND	10
05/19/95	MB*909*1	34611*8270/3510-P	2,4-Dinitrotoluene	UG/L	ND	10
05/19/95	MB*909*1	34336*8270/3510-P	Diethylphthalate	UG/L	ND	10
05/19/95	MB*909*1	34641*8270/3510-P	4-Chlorophenyl-phenylether	UG/L	ND	10
05/19/95	MB*909*1	34381*8270/3510-P	Fluorene	UG/L	ND	10
05/19/95	MB*909*1	99079*8270/3510-P	4-Nitroaniline	UG/L	ND	50
05/19/95	MB*909*1	34433*8270/3510-P	n-Nitrosodiphenylamine	UG/L	ND	10
05/19/95	MB*909*1	34636*8270/3510-P	4-Bromophenyl-phenylether	UG/L	ND	10
05/19/95	MB*909*1	39700*8270/3510-P	Hexachlorobenzene	UG/L	ND	10
05/19/95	MB*909*1	34461*8270/3510-P	Phenanthrene	UG/L	ND	10
05/19/95	MB*909*1	34220*8270/3510-P	Anthracene	UG/L	ND	10
05/19/95	MB*909*1	39110*8270/3510-P	di-n-Butylphthalate	UG/L	ND	10
05/19/95	MB*909*1	34376*8270/3510-P	Fluoranthene	UG/L	ND	10
05/19/95	MB*909*1	34469*8270/3510-P	Pyrene	UG/L	ND	10
05/19/95	MB*909*1	34292*8270/3510-P	Butylbenzylphthalate	UG/L	ND	10
05/19/95	MB*909*1	34631*8270/3510-P	3,3'-Dichlorobenzidine	UG/L	ND	20
05/19/95	MB*909*1	34526*8270/3510-P	Benzo(a)anthracene	UG/L	ND	10
05/19/95	MB*909*1	34320*8270/3510-P	Chrysene	UG/L	ND	10
05/19/95	MB*909*1	39100*8270/3510-P	Bis (2-ethylhexyl) phthalate	UG/L	ND	10
05/19/95	MB*909*1	34596*8270/3510-P	di-n-Octylphthalate	UG/L	ND	10
05/19/95	MB*909*1	34230*8270/3510-P	Benzo(b)fluoranthene	UG/L	ND	10
05/19/95	MB*909*1	34242*8270/3510-P	Benzo(k)fluoranthene	UG/L	ND	10
05/19/95	MB*909*1	34247*8270/3510-P	Benzo(a)pyrene	UG/L	ND	10
05/19/95	MB*909*1	34403*8270/3510-P	Indeno(1,2,3-cd)pyrene	UG/L	ND	10
05/19/95	MB*909*1	34556*8270/3510-P	Dibenz(a,h)anthracene	UG/L	ND	10
05/19/95	MB*909*1	34521*8270/3510-P	Benzo(g,h,i)perylene	UG/L	ND	10
05/19/95	MB*909*1	34694*8270/3510-P	Phenol	UG/L	ND	10
05/19/95	MB*909*1	34586*8270/3510-P	2-Chlorophenol	UG/L	ND	10
05/19/95	MB*909*1	99073*8270/3510-P	2-Methylphenol	UG/L	ND	10
05/19/95	MB*909*1	99074*8270/3510-P	4-Methylphenol	UG/L	ND	10
05/19/95	MB*909*1	34591*8270/3510-P	2-Nitrophenol	UG/L	ND	10
05/19/95	MB*909*1	34606*8270/3510-P	2,4-Dimethylphenol	UG/L	ND	10
05/19/95	MB*909*1	77247*8270/3510-P	Benzoic Acid	UG/L	ND	50
05/19/95	MB*909*1	34601*8270/3510-P	2,4-Dichlorophenol	UG/L	ND	10
05/19/95	MB*909*1	34452*8270/3510-P	4-Chloro-3-methylphenol	UG/L	ND	10
05/19/95	MB*909*1	34621*8270/3510-P	2,4,6-Trichlorophenol	UG/L	ND	10
05/19/95	MB*909*1	77687*8270/3510-P	2,4,5-Trichlorophenol	UG/L	ND	10
05/19/95	MB*909*1	34616*8270/3510-P	2,4-Dinitrophenol	UG/L	ND	50
05/19/95	MB*909*1	34646*8270/3510-P	4-Nitrophenol	UG/L	ND	50
05/19/95	MB*909*1	34657*8270/3510-P	4,6-dinitro-2-methylphenol	UG/L	ND	50
05/19/95	MB*909*1	39032*8270/3510-P	Pentachlorophenol	UG/L	ND	50

ESE BATCH : P28608

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/19/95	SP*909*1	34571*8270/3510-P	1,4-Dichlorobenzene	UG/L	50	25	50	36-97
05/19/95	SP*909*1	34428*8270/3510-P	n-Nitroso-di-n-propylamine	UG/L	50	27	54	41-116
05/19/95	SP*909*1	34551*8270/3510-P	1,2,4-Trichlorobenzene	UG/L	50	26	52	39-98
05/19/95	SP*909*1	34205*8270/3510-P	Acenaphthene	UG/L	50	30	60	46-118
05/19/95	SP*909*1	34611*8270/3510-P	2,4-Dinitrotoluene	UG/L	50	34	68	24-96
05/19/95	SP*909*1	34469*8270/3510-P	Pyrene	UG/L	50	36	72	26-127
05/19/95	SP*909*1	34694*8270/3510-P	Phenol	UG/L	75	15	20	12-110
05/19/95	SP*909*1	34586*8270/3510-P	2-Chlorophenol	UG/L	75	36	48	27-123
05/19/95	SP*909*1	34452*8270/3510-P	4-Chloro-3-methylphenol	UG/L	75	39	52	23-97
05/19/95	SP*909*1	34646*8270/3510-P	4-Nitrophenol	UG/L	75	21	28	10-80
05/19/95	SP*909*1	39032*8270/3510-P	Pentachlorophenol	UG/L	75	55	73	9-103

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT	RPD
05/19/95	SPM1*21272*10	34571*8270/3510-P	1,4-Dichlorobenzene	UG/L	50	24	48	36-97	
05/19/95	SPM1*21272*10	34428*8270/3510-P	n-Nitroso-di-n-propylamine	UG/L	50	26	52	41-116	
05/19/95	SPM1*21272*10	34551*8270/3510-P	1,2,4-Trichlorobenzene	UG/L	50	25	50	39-98	
05/19/95	SPM1*21272*10	34205*8270/3510-P	Acenaphthene	UG/L	50	29	58	46-118	
05/19/95	SPM1*21272*10	34611*8270/3510-P	2,4-Dinitrotoluene	UG/L	50	35	70	24-96	
05/19/95	SPM1*21272*10	34469*8270/3510-P	Pyrene	UG/L	50	34	68	26-127	
05/19/95	SPM1*21272*10	34694*8270/3510-P	Phenol	UG/L	75	15	20	12-110	
05/19/95	SPM1*21272*10	34586*8270/3510-P	2-Chlorophenol	UG/L	75	36	48	27-123	
05/19/95	SPM1*21272*10	34452*8270/3510-P	4-Chloro-3-methylphenol	UG/L	75	43	57	23-97	
05/19/95	SPM1*21272*10	34646*8270/3510-P	4-Nitrophenol	UG/L	75	20	27	10-80	
05/19/95	SPM1*21272*10	39032*8270/3510-P	Pentachlorophenol	UG/L	75	52	69	9-103	

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/19/95	MB*909*1	91012*SUR	NITROBENZENE-D5	UG/L	50	24	48	35-114
05/19/95	MB*909*1	98330*SUR	2-FLUOROBIPHENYL	UG/L	50	23	46	43-116
05/19/95	MB*909*1	97449*SUR	TERPHENYL-D14	UG/L	50	38	76	33-141
05/19/95	MB*909*1	98395*SUR	PHENOL-D5	UG/L	75	15	20	10-110
05/19/95	MB*909*1	97024*SUR	2-FLUOROPHENOL	UG/L	75	22	29	21-110
05/19/95	MB*909*1	91020*SUR	2,4,6-TRIBROMOPHENOL	UG/L	75	44	59	10-123
05/19/95	MB*909*1	98755*SUR	2-CHLOROPHENOL-D4	UG/L	75	37	49	33-110
05/19/95	MB*909*1	21996911*SUR	1,2-DICHLOROBENZENE-D4	UG/L	50	19	38	16-110
05/19/95	SP*909*1	91012*SUR	NITROBENZENE-D5	UG/L	50	28	56	35-114
05/19/95	SP*909*1	98330*SUR	2-FLUOROBIPHENYL	UG/L	50	28	56	43-116
05/19/95	SP*909*1	97449*SUR	TERPHENYL-D14	UG/L	50	38	76	33-141
05/19/95	SP*909*1	98395*SUR	PHENOL-D5	UG/L	75	16	21	10-110

ESE BATCH : P28608

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/19/95	SP*909*1	97024*SUR	2-FLUOROPHENOL	UG/L	75	24	32	21-110
05/19/95	SP*909*1	91020*SUR	2,4,6-TRIBROMOPHENOL	UG/L	75	47	63	10-123
05/19/95	SP*909*1	98755*SUR	2-CHLOROPHENOL-D4	UG/L	75	37	49	33-110
05/19/95	SP*909*1	21996911*SUR	1,2-DICHLOROBENZENE-D4	UG/L	50	24	48	16-110
05/19/95	DA*21272*8	91012*SUR	NITROBENZENE-D5	UG/L	50	29	58	35-114
05/19/95	DA*21272*8	98330*SUR	2-FLUOROBIPHENYL	UG/L	50	34	68	43-116
05/19/95	DA*21272*8	97449*SUR	TERPHENYL-D14	UG/L	50	40	80	33-141
05/19/95	DA*21272*8	98395*SUR	PHENOL-D5	UG/L	75	12	16	10-110
05/19/95	DA*21272*8	97024*SUR	2-FLUOROPHENOL	UG/L	75	16	21	21-110
05/19/95	DA*21272*8	91020*SUR	2,4,6-TRIBROMOPHENOL	UG/L	75	49	65	10-123
05/19/95	DA*21272*8	98755*SUR	2-CHLOROPHENOL-D4	UG/L	75	31	41	33-110
05/19/95	DA*21272*8	21996911*SUR	1,2-DICHLOROBENZENE-D4	UG/L	50	22	44	16-110
05/19/95	DA*21272*10	91012*SUR	NITROBENZENE-D5	UG/L	50	24	48	35-114
05/19/95	DA*21272*10	98330*SUR	2-FLUOROBIPHENYL	UG/L	50	25	50	43-116
05/19/95	DA*21272*10	97449*SUR	TERPHENYL-D14	UG/L	50	32	64	33-141
05/19/95	DA*21272*10	98395*SUR	PHENOL-D5	UG/L	75	16	21	10-110
05/19/95	DA*21272*10	97024*SUR	2-FLUOROPHENOL	UG/L	75	23	31	21-110
05/19/95	DA*21272*10	91020*SUR	2,4,6-TRIBROMOPHENOL	UG/L	75	54	72	10-123
05/19/95	DA*21272*10	98755*SUR	2-CHLOROPHENOL-D4	UG/L	75	38	51	33-110
05/19/95	DA*21272*10	21996911*SUR	1,2-DICHLOROBENZENE-D4	UG/L	50	18	36	16-110
05/19/95	DA*21272*11	91012*SUR	NITROBENZENE-D5	UG/L	50	24	48	35-114
05/19/95	DA*21272*11	98330*SUR	2-FLUOROBIPHENYL	UG/L	50	27	54	43-116
05/19/95	DA*21272*11	97449*SUR	TERPHENYL-D14	UG/L	50	35	70	33-141
05/19/95	DA*21272*11	98395*SUR	PHENOL-D5	UG/L	75	13	17	10-110
05/19/95	DA*21272*11	97024*SUR	2-FLUOROPHENOL	UG/L	75	17	23	21-110
05/19/95	DA*21272*11	91020*SUR	2,4,6-TRIBROMOPHENOL	UG/L	75	47	63	10-123
05/19/95	DA*21272*11	98755*SUR	2-CHLOROPHENOL-D4	UG/L	75	33	44	33-110
05/19/95	DA*21272*11	21996911*SUR	1,2-DICHLOROBENZENE-D4	UG/L	50	19	38	16-110
05/19/95	DA*21272*13	91012*SUR	NITROBENZENE-D5	UG/L	50	31	62	35-114
05/19/95	DA*21272*13	98330*SUR	2-FLUOROBIPHENYL	UG/L	50	40	80	43-116
05/19/95	DA*21272*13	97449*SUR	TERPHENYL-D14	UG/L	50	37	74	33-141
05/19/95	DA*21272*13	98395*SUR	PHENOL-D5	UG/L	75	12	16	10-110
05/19/95	DA*21272*13	97024*SUR	2-FLUOROPHENOL	UG/L	75	16	21	21-110
05/19/95	DA*21272*13	91020*SUR	2,4,6-TRIBROMOPHENOL	UG/L	75	49	65	10-123
05/19/95	DA*21272*13	98755*SUR	2-CHLOROPHENOL-D4	UG/L	75	33	44	33-110
05/19/95	DA*21272*13	21996911*SUR	1,2-DICHLOROBENZENE-D4	UG/L	50	24	48	16-110
05/19/95	DA*21272*14	91012*SUR	NITROBENZENE-D5	UG/L	50	22	44	35-114
05/19/95	DA*21272*14	98330*SUR	2-FLUOROBIPHENYL	UG/L	50	23	46	43-116
05/19/95	DA*21272*14	97449*SUR	TERPHENYL-D14	UG/L	50	38	76	33-141
05/19/95	DA*21272*14	98395*SUR	PHENOL-D5	UG/L	75	16	21	10-110
05/19/95	DA*21272*14	97024*SUR	2-FLUOROPHENOL	UG/L	75	21	28	21-110
05/19/95	DA*21272*14	91020*SUR	2,4,6-TRIBROMOPHENOL	UG/L	75	59	79	10-123
05/19/95	DA*21272*14	98755*SUR	2-CHLOROPHENOL-D4	UG/L	75	37	49	33-110
05/19/95	DA*21272*14	21996911*SUR	1,2-DICHLOROBENZENE-D4	UG/L	50	18	36	16-110
05/19/95	SPM1*21272*10	91012*SUR	NITROBENZENE-D5	UG/L	50	27	54	35-114
05/19/95	SPM1*21272*10	98330*SUR	2-FLUOROBIPHENYL	UG/L	50	27	54	43-116
05/19/95	SPM1*21272*10	97449*SUR	TERPHENYL-D14	UG/L	50	32	64	33-141
05/19/95	SPM1*21272*10	98395*SUR	PHENOL-D5	UG/L	75	16	21	10-110
05/19/95	SPM1*21272*10	97024*SUR	2-FLUOROPHENOL	UG/L	75	23	31	21-110
05/19/95	SPM1*21272*10	91020*SUR	2,4,6-TRIBROMOPHENOL	UG/L	75	49	65	10-123
05/19/95	SPM1*21272*10	98755*SUR	2-CHLOROPHENOL-D4	UG/L	75	37	49	33-110
05/19/95	SPM1*21272*10	21996911*SUR	1,2-DICHLOROBENZENE-D4	UG/L	50	22	44	16-110

ESE BATCH : P28608

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: P28608 Analysis Date: 05/19/95 Analyst: DOUG HAFLEY

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?		X	
Sample matrix spike duplicate within acceptance criteria?			
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

BATCH OVERRIDE BY: AMY SMITH 6116

FINALIZED BY: DEAN HUHMANN 1912

Batch Narrative - P28608 Analysis: 8270

Updated by 1912, 6116

GENERAL COMMENTS:

PROBLEM:

Sample matrix spike duplicate not present:

EXPLANATION:

Not Enough sample to run MSD. Client specified sample #10 have matrix spikes.

HERNDON 21272 DATES REPORT

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
21272*1	MW2	05/08/95	05/10/95	Benzene - 8020	NA	05/11/95	NA	3/14	P28213
				Toluene - 8020	NA	05/11/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/11/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/11/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/11/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
21272*2	MW3	05/08/95	05/10/95	Benzene - 8020	NA	05/11/95	NA	3/14	P28213
				Toluene - 8020	NA	05/11/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/11/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/11/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/11/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
21272*3	MW4	05/08/95	05/10/95	Benzene - 8020	NA	05/11/95	NA	3/14	P28213
				Toluene - 8020	NA	05/11/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/11/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/11/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/11/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
21272*4	MW5	05/08/95	05/10/95	Benzene - 8020	NA	05/11/95	NA	3/14	P28213
				Toluene - 8020	NA	05/11/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/11/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/11/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/11/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

HERNDON 21272 DATES REPORT

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				TPH, as gasoline - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
21272*5	MW6	05/08/95	05/10/95	Benzene - 8020	NA	05/11/95	NA	3/14	P28213
				Toluene - 8020	NA	05/11/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/11/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/11/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/11/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/11/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	2/14	1/40	P28207
21272*6	MW7	05/09/95	05/10/95	Benzene - 8020	NA	05/11/95	NA	2/14	P28213
				Toluene - 8020	NA	05/11/95	NA	2/14	P28213
				Ethylbenzene - 8020	NA	05/11/95	NA	2/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/11/95	NA	2/14	P28213
				O-XYLENE - 8020	NA	05/11/95	NA	2/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/11/95	NA	2/14	P28213
				Naphthalene - 8020	NA	05/11/95	NA	2/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
21272*7	MW1	05/09/95	05/10/95	Benzene - 8020	NA	05/12/95	NA	3/14	P28213
				Toluene - 8020	NA	05/12/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/12/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/12/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/15/95	NA	6/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
21272*8	MW8	05/09/95	05/10/95	Benzene - 8020	NA	05/12/95	NA	3/14	P28213
				Toluene - 8020	NA	05/12/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/12/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE	STATION ID	COLLECT. RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
			M-AND/OR P-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
			O-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
			Methyl-tert-butyl-ether - 8020	NA	05/12/95	NA	3/14	P28213
			Naphthalene - 8020	NA	05/12/95	NA	3/14	P28213
			TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
			TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
			TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
			TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
			TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
			TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
			bis(2-Chloroethyl) ether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			1,3-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			1,4-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Benzyl Alcohol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			1,2-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			2,2'-oxybis (1-Chloropropane) - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			n-Nitroso-di-n-propylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Hexachloroethane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Nitrobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Isophorone - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			bis(2-Chloroethoxy)methane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			1,2,4-Trichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Naphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			4-Chloroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Hexachlorobutadiene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			2-Methlynaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			BNA's - 8270	05/15/95	05/19/95	6/7	4/40	P28608
			2-Chloronaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			2-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Dimethylpthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Acenaphthylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			2,6-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			3-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Acenaphthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Dibenzofuran - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			2,4-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Diethylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			4-Chlorophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Fluorene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			4-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			n-Nitrosodiphenylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			4-Bromophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Hexachlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Phenanthrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			di-n-Butylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Butylbenzylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			3,3'-Dichlorobenzidine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
			Benzo(a)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

HERNDON 21272 DATES REPORT

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				Chrysene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Ethylhexyl)phthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Octylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(b)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(k)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Indeno(1,2,3-cd)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenz(a,h)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(g,h,i)perylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Phenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dimethylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzoic Acid - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloro-3-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,6-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,5-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4,6-dinitro-2-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pentachlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
21272*9	MW9	05/09/95	05/10/95	Benzene - 8020	NA	05/12/95	NA	3/14	P28213
				Toluene - 8020	NA	05/12/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/12/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/12/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/12/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
21272*10	MW10	05/09/95	05/10/95	Benzene - 8020	NA	05/11/95	NA	2/14	P28213
				Toluene - 8020	NA	05/11/95	NA	2/14	P28213
				Ethylbenzene - 8020	NA	05/11/95	NA	2/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/11/95	NA	2/14	P28213
				O-XYLENE - 8020	NA	05/11/95	NA	2/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/11/95	NA	2/14	P28213
				Naphthalene - 8020	NA	05/11/95	NA	2/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				bis(2-Chloroethyl) ether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,3-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,4-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzyl Alcohol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,2-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,2'-oxybis (1-Chloropropane) - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				n-Nitroso-di-n-propylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachloroethane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Nitrobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Isophorone - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Chloroethoxy)methane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,2,4-Trichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Naphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachlorobutadiene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methlynaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				BNA's - 8270	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chloronaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dimethylpthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Acenaphthylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,6-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				3-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Acenaphthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenzofuran - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Diethylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chlorophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Fluorene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				n-Nitrosodiphenylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Bromophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Phenanthrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Butylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Butylbenzylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				3,3'-Dichlorobenzidine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Chrysene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Ethylhexyl)phthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Octylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(b)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(k)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Indeno(1,2,3-cd)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenz(a,h)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(g,h,i)perylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				Phenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dimethylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzoic Acid - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloro-3-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,6-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,5-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4,6-dinitro-2-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pentachlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
21272*11	MW11	05/09/95	05/10/95	Benzene - 8020	NA	05/12/95	NA	3/14	P28213
				Toluene - 8020	NA	05/12/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/12/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/12/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/12/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				bis(2-Chloroethyl) ether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,3-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,4-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzyl Alcohol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,2-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,2'-oxybis (1-Chloropropane) - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				n-Nitroso-di-n-propylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachloroethane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Nitrobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Isophorone - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Chloroethoxy)methane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,2,4-Trichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Naphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachlorobutadiene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methlynaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				BNA's - 8270	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chloronaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dimethylpthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Acenaphthylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,6-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				3-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Acenaphthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenzofuran - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Diethylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chlorophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Fluorene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				n-Nitrosodiphenylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Bromophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Phenanthrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Butylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Butylbenzylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				3,3'-Dichlorobenzidine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Chrysene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Ethylhexyl)phthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Octylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(b)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(k)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Indeno(1,2,3-cd)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenz(a,h)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(g,h,i)perylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Phenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dimethylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzoic Acid - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloro-3-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,6-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,5-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4,6-dinitro-2-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pentachlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
21272*12	MW12	05/09/95	05/10/95	Benzene - 8020	NA	05/12/95	NA	3/14	P28213
				Toluene - 8020	NA	05/12/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/12/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/12/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/12/95	NA	3/14	P28213

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
21272*13	DUP	05/09/95	05/10/95	Benzene - 8020	NA	05/12/95	NA	3/14	P28213
				Toluene - 8020	NA	05/12/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/12/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/12/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/12/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				bis(2-Chloroethyl) ether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,3-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,4-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzyl Alcohol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,2-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,2'-oxybis (1-Chloropropane) - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				n-Nitroso-di-n-propylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachloroethane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Nitrobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Isophorone - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Chloroethoxy)methane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,2,4-Trichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Naphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachlorobutadiene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methlynaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				BNA's - 8270	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chloronaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dimethylpthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Acenaphthylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,6-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				3-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Acenaphthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenzofuran - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Diethylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chlorophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Fluorene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				n-Nitrosodiphenylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				4-Bromophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Phenanthrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Butylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Butylbenzylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				3,3'-Dichlorobenzidine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Chrysene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Ethylhexyl)phthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Octylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(b)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(k)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Indeno(1,2,3-cd)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenz(a,h)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(g,h,i)perylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Phenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dimethylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzoic Acid - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloro-3-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,6-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,5-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4,6-dinitro-2-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pentachlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
21272*14	EQUIPBLANK	05/09/95	05/10/95	Benzene - 8020	NA	05/12/95	NA	3/14	P28213
				Toluene - 8020	NA	05/12/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/12/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/12/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/12/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				bis(2-Chloroethyl) ether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,3-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,4-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

HERNDON 21272 DATES REPORT

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				Benzyl Alcohol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,2-Dichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,2'-oxybis (1-Chloropropane) - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				n-Nitroso-di-n-propylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachloroethane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Nitrobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Isophorone - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Chloroethoxy)methane - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				1,2,4-Trichlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Naphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachlorobutadiene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methlynaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				BNA's - 8270	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chloronaphthalene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dimethylpthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Acenaphthylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,6-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				3-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Acenaphthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenzofuran - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrotoluene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Diethylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chlorophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Fluorene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitroaniline - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				n-Nitrosodiphenylamine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Bromophenyl-phenylether - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Hexachlorobenzene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Phenanthrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Butylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Butylbenzylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				3,3'-Dichlorobenzidine - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Chrysene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				bis(2-Ethylhexyl)phthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				di-n-Octylphthalate - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(b)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(k)fluoranthene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(a)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Indeno(1,2,3-cd)pyrene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Dibenz(a,h)anthracene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzo(g,h,i)perylene - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Phenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Chlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				2-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dimethylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Benzoic Acid - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Chloro-3-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,6-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4,5-Trichlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				2,4-Dinitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4-Nitrophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				4,6-dinitro-2-methylphenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
				Pentachlorophenol - 8270/3510	05/15/95	05/19/95	6/7	4/40	P28608
21272*15	TRIP	05/09/95	05/10/95	Benzene - 8020	NA	05/12/95	NA	3/14	P28213
				Toluene - 8020	NA	05/12/95	NA	3/14	P28213
				Ethylbenzene - 8020	NA	05/12/95	NA	3/14	P28213
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				O-XYLENE - 8020	NA	05/12/95	NA	3/14	P28213
				Methyl-tert-butyl-ether - 8020	NA	05/12/95	NA	3/14	P28213
				Naphthalene - 8020	NA	05/12/95	NA	3/14	P28213
				TPH, as diesel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as gasoline - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as jet fuel - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as unidentified hydrocarbon - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as motor oil - 8015M	05/10/95	05/11/95	1/14	1/40	P28207
				TPH, as mineral spirits - 8015M	05/10/95	05/11/95	1/14	1/40	P28207

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

ESE Environmental Science & Engineering, Inc.
8901 North Industrial Road -- Peoria, Illinois 61615
Telephone: (309) 692-4422 -- Fax: (309) 692-5232

FOR LAB USE ONLY
Project Number: ____-____
Due Date: ____-____-____

Chain of Custody Record

№ 11454

Company: ESE
Address: 230 CLEARFIELD AVE
SUITE 114
VIRGINIA BCH, VA 23462
Phone #: (804) 490-2004 Fax #: (804) 490-2304
P.O. #:
Client Contact: HAROLD THURSTON
Project # / Location: 2295042G 4e TANK 304

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other :

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BTEX/NAPH/MTBE 8020	TPH 8015	BNA 8270											Comments
MW 2	1			5	5/8/95	1357		21272-1	✓	✓								A				HCl USED FOR
MW 3	1			5	5/8/95	1315		-2	✓	✓												BTEX
MW 4	1			5	5/8/95	1442		-3	✓	✓												
MW 5	1			5	5/8/95	1531		-4	✓	✓												
MW 6	1			5	5/8/95	1608		-5	✓	✓												
MW 7	1			5	5/9/95	0925		-6	✓	✓												
MW 1	1			5	5/9/95	1245		-7	✓	✓												
MW 8	1			8	5/9/95	0953		-8	✓	✓	✓							B				
MW 9	1			5	5/9/95	1035		-9	✓	✓								A				
MW 10	1			8	5/9/95	1100		-10	✓	✓	✓							B				
MW 11	1			8	5/9/95	1130		-11	✓	✓	✓							B				
MW 12	1			5	5/9/95	1200		-12	✓	✓								A				

Relinquished By:	Date: 5-9-95 Time: 13:00	Received By:	Date: -- -- Time: :
Relinquished By:	Date: -- -- Time: :	Received For Lab By: SReining	Date: 5-10-95 Time: 10:00

TURNAROUND TIME:
☐ RUSH:____ day turnaround
☑ ROUTINE

FOR LAB USE ONLY
Samples Received Chilled
☐ Yes
☐ No
7°C

SPECIAL INSTRUCTIONS:

Copies: White - Client Canary - Lab Receiving Pink - Lab File Goldenrod - Retained by Sampler

Environmental Science & Engineering, Inc.
A CH2M HILL Company
8901 North Industrial Road -- Peoria, Illinois 61615
Telephone: (309) 692-4422 -- Fax: (309) 692-5232

FOR LAB USE ONLY
Project Number: ____-____
Due Date: ____-____-____

Chain of Custody Record

№ 11455

Company: ESE
Address: 230 CLEARFIELD AVE
SUITE 114
VIRGINIA BCH, VA 23462
Phone #: (804) 490-2004 Fax #: (804) 490-2304
P.O. #:
Client Contact: HAROLD THURSTON
Project # / Location: 2275042G 4CTANK304

Sample Type:
1. Water
2. Soil
3. Sludge
4. Oil
5. Tissue
Other : _____

Container Type:
P - Plastic
G - Glass
V - VOC

Preservative:
1. None
2. H2SO4
3. HNO3
4. NaOH

Analyses: BTEX | NAPH | MTBE 8020 | TPH 8015 | BNA 8270

Sample I.D. (10 Characters ONLY)	Sample Type	Container Size	Container Type	Container No.	Sampling Date	Sampling Time	Preservative	Lab I.D.	BTEX	NAPH	MTBE 8020	TPH 8015	BNA 8270										Comments
DUP				8				21272-13	✓	✓	✓					B							HCl FOR
EQUIP BLK				8				-14	✓	✓	✓					B		2 recd	1 broken				BTEX
TRIP								-15	✓	✓						A		SR 5-10-95					

Relinquished By:	Date: 5-9-95 Time: 13:00	Received By:	Date: -- -- Time: :	TURNAROUND TIME: ☐ RUSH:_____ day turnaround ☑ ROUTINE	FOR LAB USE ONLY Samples Received Chilled ☐ Yes ☐ No 4°C
Relinquished By:	Date: -- -- Time: :	Received For Lab By: SReinning	Date: 5-10-95 Time: 10:00		

SPECIAL INSTRUCTIONS:

Copies: White - Client Canary - Lab Receiving Pink - Lab File Goldenrod - Retained by Sampler

Environmental
Science &
Engineering, Inc.
A CILCORP Company

8901 North Industrial Road
Peoria, Illinois 61615-1589

Phone (309) 692-4422
Lab Fax (309) 692-5232

An **IEPA** Contract Laboratory

May 16, 1995

Mr. Harold Thurston
Environmental Science & Engineering, Inc.
TRC Center, Suite 114
230 Clear Field Ave.
Virginia Beach, VA 23462

Dear Harold,

Environmental Science & Engineering, Inc. (ESE) appreciates the opportunity to provide the attached report of analyses for ESE sample delivery group #21196, received 05/03/95 by our laboratory. This deliverable includes tabulated results, chain-of-custody, and QC summary.

Should you have any questions regarding this data, please contact me at (309) 693-5623.

Sincerely,

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

Barbara G. Raya-Hash

Barbara G. Raya-Hash
Senior Project Manager

Attachments

Environmental Science & Engineering 05/16/95 STATUS :FINAL PAGE 1
PROJECT NUMBER 591-5101 PROJECT NAME ESE-HERNDON (LANTDIV, LITTLE CREEK TANK 304)
FIELD GROUP 21196 LAB COORDINATOR BARBARA RAYA-HASH

T SAMPLE ID'S:			REPORTING	MW-8 6-8	MW-8 9-11	MW-9 4-6	MW-9 6-8	MW-10 6-8	MW-10 9-11	MW-11 4-6
ESE FIELD GROUP:			LIMIT	21196	21196	21196	21196	21196	21196	21196
ESE SEQUENCE #:				1	2	3	4	5	6	7
DATE COLLECTED:				05/01/95	05/01/95	05/01/95	05/01/95	05/02/95	05/02/95	05/01/95
TIME COLLECTED:				10:55	11:00	12:05	12:10	09:27	09:37	15:33
PARAMETERS	UNITS	METHOD								
Moisture	%	160.3	0.1	10.8	18.6	7.0	18.6	11.5	16.0	14.9
Benzene	UG/KG-DRY WT.	8020	1	<6	<1	<1	<1	<1	<1	<1
Toluene	UG/KG-DRY WT.	8020	1	<6	<1	<1	<1	<1	<1	<1
Ethylbenzene	UG/KG-DRY WT.	8020	1	71	4	<1	<1	<1	<1	4
Xylenes, Total	UG/KG-DRY WT.	8020	1	650	26	<1	9	6	<1	45
TPH, as diesel	MG/KG-DRY WT.	8015/MOD	10	<11	<12	<11	<12	<11	<12	<12
TPH, as gasoline	MG/KG-DRY WT.	8015/MOD	10	<11	<12	<11	<12	<11	<12	<12
TPH, as jet fuel	MG/KG-DRY WT.	8015/MOD	10	<11	<12	<11	<12	<11	<12	<12
TPH, as unidentified hydrocarbon	MG/KG-DRY WT.	8015/MOD	10	1800	170	<11	<12	410	140	2100
TPH, as motor oil	MG/KG-DRY WT.	8015/MOD	160	<180	<200	<170	<200	<180	<190	<190
TPH, as mineral spirits	MG/KG-DRY WT.	8015/MOD	10	<11	<12	<11	<12	<11	<12	<12

PROJECT NUMBER 591-5101 PROJECT NAME ESE-HERNDON (LANTDIV, LITTLE CREEK TANK 304)
FIELD GROUP 21196 LAB COORDINATOR BARBARA RAYA-HASH

CLIENT SAMPLE ID'S:			REPORTING	MW-11 6-8	MW-12 4-6	MW-12 6-8	FIELD DUP	EQUIP BLK
ESE FIELD GROUP:			LIMIT	21196	21196	21196	21196	21196
ESE SEQUENCE #:				8	9	10	11	12
DATE COLLECTED:				05/01/95	05/01/95	05/01/95	05/01/95	05/02/95
TIME COLLECTED:				15:38	13:36	13:45		10:00
PARAMETERS	UNITS	METHOD						
Moisture	%	160.3	0.1	15.3	4.5	27.4	14.2	NRQ
Benzene	UG/KG-DRY WT.	8020	1	<1	<1	<1	<1	NRQ
Toluene	UG/KG-DRY WT.	8020	1	<1	<1	<1	<1	NRQ
Ethylbenzene	UG/KG-DRY WT.	8020	1	<1	<1	<1	<1	NRQ
Xylenes, Total	UG/KG-DRY WT.	8020	1	8	<1	<2	<1	NRQ
TPH, as diesel	MG/KG-DRY WT.	8015/MOD	10	<12	<10	<14	<12	NRQ
TPH, as gasoline	MG/KG-DRY WT.	8015/MOD	10	<12	<10	<14	<12	NRQ
TPH, as jet fuel	MG/KG-DRY WT.	8015/MOD	10	<12	<10	<14	<12	NRQ
TPH, as unidentified hydrocarbon	MG/KG-DRY WT.	8015/MOD	10	650	<10	<14	580	NRQ
TPH, as motor oil	MG/KG-DRY WT.	8015/MOD	160	<190	<170	<220	<190	NRQ
TPH, as mineral spirits	MG/KG-DRY WT.	8015/MOD	10	<12	<10	<14	<12	NRQ
Benzene	UG/L	8020	1	NRQ	NRQ	NRQ	NRQ	<1
Toluene	UG/L	8020	1	NRQ	NRQ	NRQ	NRQ	<1
Ethylbenzene	UG/L	8020	1	NRQ	NRQ	NRQ	NRQ	<1
Xylenes, Total	UG/L	8020	1	NRQ	NRQ	NRQ	NRQ	<1
TPH, as diesel	MG/L	8015/MOD	0.5	NRQ	NRQ	NRQ	NRQ	<0.5
TPH, as gasoline	MG/L	8015/MOD	0.5	NRQ	NRQ	NRQ	NRQ	<0.5
TPH, as jet fuel	MG/L	8015/MOD	0.5	NRQ	NRQ	NRQ	NRQ	<0.5
TPH, as unidentified hydrocarbon	MG/L	8015/MOD	0.5	NRQ	NRQ	NRQ	NRQ	<0.5
TPH, as motor oil	MG/L	8015/MOD	5	NRQ	NRQ	NRQ	NRQ	<5.0
TPH, as mineral spirits	MG/L	8015/MOD	0.5	NRQ	NRQ	NRQ	NRQ	<0.5

NRQ - Analysis not requested.

HERNDON 21196 DATES REPORT

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
21196*1	MW-8 6-8	05/01/95	05/03/95	BTEX - 8020	NA	05/04/95	NA	3/14	P28118
				Toluene - 8020	NA	05/04/95	NA	3/14	P28118
				Ethylbenzene - 8020	NA	05/04/95	NA	3/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/04/95	NA	3/14	P28118
				O-XYLENE - 8020	NA	05/04/95	NA	3/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
21196*2	MW-8 9-11	05/01/95	05/03/95	BTEX - 8020	NA	05/05/95	NA	4/14	P28118
				Toluene - 8020	NA	05/05/95	NA	4/14	P28118
				Ethylbenzene - 8020	NA	05/05/95	NA	4/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/05/95	NA	4/14	P28118
				O-XYLENE - 8020	NA	05/05/95	NA	4/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/09/95	4/14	4/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/09/95	4/14	4/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/09/95	4/14	4/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/09/95	4/14	4/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/09/95	4/14	4/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/09/95	4/14	4/40	P28137
21196*3	MW-9 4-6	05/01/95	05/03/95	BTEX - 8020	NA	05/04/95	NA	3/14	P28118
				Toluene - 8020	NA	05/04/95	NA	3/14	P28118
				Ethylbenzene - 8020	NA	05/04/95	NA	3/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/04/95	NA	3/14	P28118
				O-XYLENE - 8020	NA	05/04/95	NA	3/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/05/95	4/14	0/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/05/95	4/14	0/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/05/95	4/14	0/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/05/95	4/14	0/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/05/95	4/14	0/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/05/95	4/14	0/40	P28137
21196*4	MW-9 6-8	05/01/95	05/03/95	BTEX - 8020	NA	05/04/95	NA	3/14	P28118
				Toluene - 8020	NA	05/04/95	NA	3/14	P28118
				Ethylbenzene - 8020	NA	05/04/95	NA	3/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/04/95	NA	3/14	P28118
				O-XYLENE - 8020	NA	05/04/95	NA	3/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/06/95	4/14	1/40	P28137

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

HERNDON 21196 DATES REPORT

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				TPH, as mineral spirits - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
21196*5	MW-10 6-8	05/02/95	05/03/95	BTEX - 8020	NA	05/05/95	NA	3/14	P28118
				Toluene - 8020	NA	05/05/95	NA	3/14	P28118
				Ethylbenzene - 8020	NA	05/05/95	NA	3/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/05/95	NA	3/14	P28118
				O-XYLENE - 8020	NA	05/05/95	NA	3/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	2/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
21196*6	MW-10 9-11	05/02/95	05/03/95	BTEX - 8020	NA	05/05/95	NA	3/14	P28118
				Toluene - 8020	NA	05/05/95	NA	3/14	P28118
				Ethylbenzene - 8020	NA	05/05/95	NA	3/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/05/95	NA	3/14	P28118
				O-XYLENE - 8020	NA	05/05/95	NA	3/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	2/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/06/95	3/14	1/40	P28137
21196*7	MW-11 4-6	05/01/95	05/03/95	BTEX - 8020	NA	05/05/95	NA	4/14	P28118
				Toluene - 8020	NA	05/05/95	NA	4/14	P28118
				Ethylbenzene - 8020	NA	05/05/95	NA	4/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/05/95	NA	4/14	P28118
				O-XYLENE - 8020	NA	05/05/95	NA	4/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/08/95	4/14	3/40	P28137
21196*8	MW-11 6-8	05/01/95	05/03/95	BTEX - 8020	NA	05/05/95	NA	4/14	P28118
				Toluene - 8020	NA	05/05/95	NA	4/14	P28118
				Ethylbenzene - 8020	NA	05/05/95	NA	4/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/05/95	NA	4/14	P28118
				O-XYLENE - 8020	NA	05/05/95	NA	4/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/06/95	4/14	1/40	P28137

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				TPH, as motor oil - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
21196*9	MW-12 4-6	05/01/95	05/03/95	BTEX - 8020	NA	05/05/95	NA	4/14	P28118
				Toluene - 8020	NA	05/05/95	NA	4/14	P28118
				Ethylbenzene - 8020	NA	05/05/95	NA	4/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/05/95	NA	4/14	P28118
				O-XYLENE - 8020	NA	05/05/95	NA	4/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
21196*10	MW-12 6-8	05/01/95	05/03/95	BTEX - 8020	NA	05/04/95	NA	3/14	P28118
				Toluene - 8020	NA	05/04/95	NA	3/14	P28118
				Ethylbenzene - 8020	NA	05/04/95	NA	3/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/04/95	NA	3/14	P28118
				O-XYLENE - 8020	NA	05/04/95	NA	3/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
21196*11	FIELD DUP	05/01/95	05/03/95	BTEX - 8020	NA	05/08/95	NA	7/14	P28118
				Toluene - 8020	NA	05/08/95	NA	7/14	P28118
				Ethylbenzene - 8020	NA	05/08/95	NA	7/14	P28118
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/08/95	NA	7/14	P28118
				O-XYLENE - 8020	NA	05/08/95	NA	7/14	P28118
				Moisture - 160.3	NA	05/04/95	NA	3/180	P28095
				TPH, as diesel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as gasoline - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as jet fuel - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as motor oil - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
				TPH, as mineral spirits - 8015M	05/05/95	05/06/95	4/14	1/40	P28137
21196*12	EQUIP BLK	05/02/95	05/03/95	Benzene - 8020	NA	05/04/95	NA	2/14	P28063
				Toluene - 8020	NA	05/04/95	NA	2/14	P28063
				Ethylbenzene - 8020	NA	05/04/95	NA	2/14	P28063
				Xylenes, Total - 8020	NA		NA	/14	
				M-AND/OR P-XYLENE - 8020	NA	05/04/95	NA	2/14	P28063
				O-XYLENE - 8020	NA	05/04/95	NA	2/14	P28063
				TPH, as diesel - 8015M	05/05/95	05/06/95	3/14	1/40	P28123
				TPH, as gasoline - 8015M	05/05/95	05/06/95	3/14	1/40	P28123
				TPH, as jet fuel - 8015M	05/05/95	05/06/95	3/14	1/40	P28123
				TPH, as unidentified hydrocarbon - 8015M	05/05/95	05/06/95	3/14	1/40	P28123

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

HERNDON 21196 DATES REPORT

SAMPLE	STATION ID	COLLECT.	RECEIPT	CLASSIFICATION	EXTRACT.	ANALYSIS	DAYS, ACT/HT EXT	ANL	ESE BATCH
				TPH, as motor oil - 8015M	05/05/95	05/06/95	3/14	1/40	P28123
				TPH, as mineral spirits - 8015M	05/05/95	05/06/95	3/14	1/40	P28123

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

ESE BATCH : P28123
ANALYSIS : 8015/MOD

QC TYPE : ESE
A : BRENT DONALSON
EXTRACTOR :
DATA ENTRY : BRENT DONALSON

REPORT DATE/TIME : 05/16/95 10:33:01
ANALYSIS DATE :
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
8015

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
21196	BATCH	591-5101	ESE-HERNDON (LANTDIV)	BARBARA RAYA-HASH

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
21196*12	EQUIP BLK	05/06/95	

ESE BATCH : P28123

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND	DET LMT
05/06/95	MB*95-878*1	96018*8015M-P	TPH, as diesel	MG/L	ND	0.50
05/06/95	MB*95-878*1	96017*8015M-P	TPH, as gasoline	MG/L	ND	0.50
05/06/95	MB*95-878*1	96016*8015M-P	TPH, as jet fuel	MG/L	ND	0.50
05/06/95	MB*95-878*1	801501*8015M-P	TPH, as unidentified hydrocarb	MG/L	ND	0.50
05/06/95	MB*95-878*1	801505*8015M-P	TPH, as motor oil	MG/L	ND	5.00
05/06/95	MB*95-878*1	801503*8015M-P	TPH, as mineral spirits	MG/L	ND	0.50

Standard Matrix Spike Recovery Summary

D	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/06/95	SP1*95-878*1	96018*8015M-P	TPH, as diesel	MG/L	1.00	0.55	55.0	51-123

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/06/95	MB*95-878*1	940606*SUR	Pentacosane	MG/L	0.13	0.09	69.2	50-130
05/06/95	DA*21196*12	940606*SUR	Pentacosane	MG/L	0.13	0.12	92.3	50-130
05/06/95	SP1*95-878*1	940606*SUR	Pentacosane	MG/L	0.13	0.09	69.2	50-130

ESE BATCH : P28123

Environmental Science and Engineering Analytical Services

Computer QC Checks

B-' ' No.: P28123 Analysis Date: Analyst: BRENT DONALSON

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

BATCH OVERRIDE BY: WILLIAM FRANEY 5985

FINALIZED BY: WILLIAM FRANEY 5985

ESE BATCH : P28118
ANALYSIS : 8020

QC TYPE : ESE
ANALYST : RACHEL HARRIS
EXTRACTOR :
DATA ENTRY : RACHEL HARRIS

REPORT DATE/TIME : 05/16/95 10:25:25
ANALYSIS DATE : 05/08/95
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
8020/S

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
21196	BATCH	591-5101	ESE-HERNDON (LANTDIV)	BARBARA RAYA-HASH

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
21196*3	MW-9 4-6	05/04/95	11:22AM
21196*1	MW-8 6-8	05/04/95	01:55PM
21196*4	MW-9 6-8	05/04/95	02:56PM
21196*10	MW-12 6-8	05/04/95	06:59PM
21196*2	MW-8 9-11	05/05/95	02:11PM
21196*5	MW-10 6-8	05/05/95	03:11PM
21196*6	MW-10 9-11	05/05/95	03:41PM
21196*7	MW-11 4-6	05/05/95	04:40PM
21196*8	MW-11 6-8	05/05/95	05:10PM
21196*9	MW-12 4-6	05/05/95	05:41PM
21196*11	FIELD DUP	05/08/95	12:36PM

ESE BATCH : P28118

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND	DET LMT
[illegible]	MB*HP5_A1561*1	34237*8020-P	Benzene	UG/KG-	ND	1.00
05/[illegible]/95	MB*HP5_A1561*1	34483*8020-P	Toluene	UG/KG-	ND	1.00
05/04/95	MB*HP5_A1561*1	34374*8020-P	Ethylbenzene	UG/KG-	0.09	1.00
05/04/95	MB*HP5_A1561*1	96980*8020-P	m-and/or p-Xylene	UG/KG-	ND	1.00
05/04/95	MB*HP5_A1561*1	96981*8020-P	o-Xylene	UG/KG-	0.19	1.00
05/05/95	MB*HP5_A1563*1	34237*8020-P	Benzene	UG/KG-	ND	1.00
05/05/95	MB*HP5_A1563*1	34483*8020-P	Toluene	UG/KG-	ND	1.00
05/05/95	MB*HP5_A1563*1	34374*8020-P	Ethylbenzene	UG/KG-	0.07	1.00
05/05/95	MB*HP5_A1563*1	96980*8020-P	m-and/or p-Xylene	UG/KG-	ND	1.00
05/05/95	MB*HP5_A1563*1	96981*8020-P	o-Xylene	UG/KG-	0.26	1.00
05/08/95	MB*HP5_A0001*1	34237*8020-P	Benzene	UG/KG-	ND	1.00
05/08/95	MB*HP5_A0001*1	34483*8020-P	Toluene	UG/KG-	ND	1.00
05/08/95	MB*HP5_A0001*1	34374*8020-P	Ethylbenzene	UG/KG-	0.34	1.00
05/08/95	MB*HP5_A0001*1	96980*8020-P	m-and/or p-Xylene	UG/KG-	ND	1.00
05/08/95	MB*HP5_A0001*1	96981*8020-P	o-Xylene	UG/KG-	ND	1.00

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/04/95	SP*HP5_A1561*1	34237*8020-P	Benzene	UG/KG-	50.0	52.4	104.8	74-130
05/04/95	SP*HP5_A1561*1	34483*8020-P	Toluene	UG/KG-	50.0	51.4	102.8	26-122
05/05/95	SP*HP5_A1563*1	34237*8020-P	Benzene	UG/KG-	50.0	49.4	98.8	74-130
05/05/95	SP*HP5_A1563*1	34483*8020-P	Toluene	UG/KG-	50.0	49.4	98.8	26-122
05/08/95	SP*HP5_A0001*1	34237*8020-P	Benzene	UG/KG-	50.0	50.0	100.0	74-130
05/08/95	SP*HP5_A0001*1	34483*8020-P	Toluene	UG/KG-	50.0	49.7	99.4	26-122

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT	RPD
05/04/95	SPM1*21196*3	34237*8020-P	Benzene	UG/KG-	53.8	55.3	102.8	74-130	
05/04/95	SPM1*21196*3	34483*8020-P	Toluene	UG/KG-	53.8	54.2	100.7	26-122	
05/04/95	SPM2*21196*3	34237*8020-P	Benzene	UG/KG-	53.8	57.1	106.1	74-130	3.30
05/04/95	SPM2*21196*3	34483*8020-P	Toluene	UG/KG-	53.8	56.1	104.3	26-122	3.50
05/[illegible]/95	SPM2*21233*1	34483*8020-P	Toluene	UG/KG-	61.7	54.2	87.8	26-122	8.40

ESE BATCH : P28118

Surrogate Spike Recovery Summary

D/	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/04/95	CCS*HP5_A1561*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	42.8	107	16-130
05/04/95	MB*HP5_A1561*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	40.8	102	16-130
05/04/95	SP*HP5_A1561*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	43.4	109	16-130
05/04/95	DA*21196*3	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	41.4	104	16-130
05/04/95	SPM1*21196*3	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	40.9	102	16-130
05/04/95	SPM2*21196*3	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	40.4	101	16-130
05/04/95	DA*21196*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	34.9	87.3	16-130
05/04/95	DA*21196*4	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	36.0	90.0	16-130
05/04/95	CCS*HP5_A1561*2	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	38.0	95.0	16-130
05/04/95	CCS*HP5_A1561*3	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	38.3	95.8	16-130
05/04/95	DA*21196*10	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	38.7	96.8	16-130
05/04/95	CCS*HP5_A1561*4	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	40.6	102	16-130
05/05/95	CCS*HP5_A1563*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	43.9	110	16-130
05/05/95	MB*HP5_A1563*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	40.6	102	16-130
05/05/95	SP*HP5_A1563*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	40.6	102	16-130
05/05/95	DA*21196*2	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	40.7	102	16-130
05/05/95	DA*21196*5	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	35.6	89.0	16-130
05/05/95	DA*21196*6	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	36.1	90.3	16-130
05/05/95	DA*21196*7	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	25.6	64.0	16-130
05/05/95	DA*21196*8	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	35.0	87.5	16-130
05/05/95	DA*21196*9	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	36.9	92.3	16-130
05/05/95	CCS*HP5_A1563*2	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	38.2	95.5	16-130
05/08/95	CCS*HP5_A0001*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	41.1	103	16-130
05/08/95	MB*HP5_A0001*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	36.8	92.0	16-130
05/08/95	SP*HP5_A0001*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	39.6	99.0	16-130
05/08/95	DA*21196*11	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	39.5	98.8	16-130
05/08/95	SPM1*21228*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	36.8	92.0	16-130
05/08/95	SPM2*21228*1	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	31.9	79.8	16-130
05/08/95	CCS*HP5_A0001*2	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	36.7	91.8	16-130
05/08/95	CCS*HP5_A0001*3	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	38.3	95.8	16-130
05/08/95	CCS*HP5_A0001*4	96101*SUR	AAA TRIFLUOROTOLUENE	UG/KG	40.0	41.1	103	16-130

ESE BATCH : P28118

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: P28118 Analysis Date: 05/08/95 Analyst: RACHEL HARRIS

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

BATCH OVERRIDE BY: ROBERT PADDISON 3540

FINALIZED BY: ROBERT PADDISON 3540

ESE BATCH : P28095
ANALYSIS : 160.3

QC TYPE : ESE
A T : CHRIS FISHER
E. TOR :
DATA ENTRY : CHRIS FISHER

REPORT DATE/TIME : 05/16/95 10:29:39
ANALYSIS DATE : 05/04/95
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
160.3

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
21196	BATCH	591-5101	ESE-HERNDON (LANTDIV)	BARBARA RAYA-HASH

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
21196*1	MW-8 6-8		
21196*2	MW-8 9-11		
21196*3	MW-9 4-6		
21196*4	MW-9 6-8		
21196*5	MW-10 6-8		
21196*6	MW-1C 9-11		
21196*7	MW-11 4-6		
21196*8	MW-11 6-8		
21196*9	MW-12 4-6		
21196*10	MW-12 6-8		
21196*11	FIELD DUP		

ESE BATCH : P28095

Replicate Analysis Sample Summary

[	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT
0 /95	RP*21187*4	70320*160.3-P	Moisture	%	7.2	7.7	6.7	20
05/04/95	RP*21187*4	61553*160.3-P	Total Solids	%	0.0	NA		20
05/04/95	RP*21196*9	70320*160.3-P	Moisture	%	4.5	4.7	4.3	20
05/04/95	RP*21196*9	61553*160.3-P	Total Solids	%	0.0	NA		20

ESE BATCH : P28095
Environmental Science and Engineering Analytical Services
Computer QC Checks

Batch No.: P28095 Analysis Date: 05/04/95 Analyst: CHRIS FISHER

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Sample replicate present?	X		
Sample replicate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

BATCH OVERRIDE BY: CHRIS FISHER 5211

FINALIZED BY: CHRIS FISHER 5211

ESE BATCH : P28137
ANALYSIS : 8015/MOD

QC TYPE : ESE
T : BRENT DONALSON
E. CTOR :
DATA ENTRY : BRENT DONALSON

REPORT DATE/TIME : 05/16/95 10:30:01
ANALYSIS DATE :
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
8015

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
21196	BATCH	591-5101	ESE-HERNDON (LANTDIV)	BARBARA RAYA-HASH

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
21196*1	MW-8 6-8	05/08/95	
21196*2	MW-8 9-11	05/09/95	
21196*3	MW-9 4-6	05/05/95	
21196*4	MW-9 6-8	05/06/95	
21196*5	MW-10 6-8	05/06/95	
21196*6	MW-10 9-11	05/06/95	
21196*7	MW-11 4-6	05/08/95	
21196*8	MW-11 6-8	05/06/95	
21196*9	MW-12 4-6	05/06/95	
21196*10	MW-12 6-8	05/06/95	
21196*11	FIELD DUP	05/06/95	

ESE BATCH : P28137

M· ·d Blank Sample Summary

D.	SAMPLE	STORET	PARAMETER	UNITS	FOUND	DET LMT
05/08/95	MB*95-876*1	96021*8015MD-P	TPH, as diesel	MG/KG-	ND	10
05/08/95	MB*95-876*1	96020*8015MD-P	TPH, as gasoline	MG/KG-	ND	10
05/08/95	MB*95-876*1	96019*8015MD-P	TPH, as jet fuel	MG/KG-	ND	10
05/08/95	MB*95-876*1	801502*8015MD-P	TPH, as unidentified hydrocarb	MG/KG-	ND	10
05/08/95	MB*95-876*1	801506*8015MD-P	TPH, as motor oil	MG/KG-	ND	160
05/08/95	MB*95-876*1	801504*8015MD-P	TPH, as mineral spirits	MG/KG-	ND	10
05/05/95	MB*95-875*1	96021*8015MD-P	TPH, as diesel	MG/KG-	ND	10
05/05/95	MB*95-875*1	96020*8015MD-P	TPH, as gasoline	MG/KG-	ND	10
05/05/95	MB*95-875*1	96019*8015MD-P	TPH, as jet fuel	MG/KG-	ND	10
05/05/95	MB*95-875*1	801502*8015MD-P	TPH, as unidentified hydrocarb	MG/KG-	ND	10
05/05/95	MB*95-875*1	801506*8015MD-P	TPH, as motor oil	MG/KG-	ND	160
05/05/95	MB*95-875*1	801504*8015MD-P	TPH, as mineral spirits	MG/KG-	ND	10

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/06/95	SP1*95-875*1	96021*8015MD-P	TPH, as diesel	MG/KG-	50	34	68	56-124
05/08/95	SP1*95-876*1	96021*8015MD-P	TPH, as diesel	MG/KG-	50	42	84	56-124

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/08/95	MB*95-876*1	9406061*SUR	Pentacosane	MG/KG	6.30	5.80	92.1	50-130
05/05/95	MB*95-875*1	9406061*SUR	Pentacosane	MG/KG	6.30	5.80	92.1	50-130
05/06/95	SP1*95-875*1	9406061*SUR	Pentacosane	MG/KG	6.30	6.00	95.2	50-130
05/08/95	SP1*95-876*1	9406061*SUR	Pentacosane	MG/KG	6.30	6.30	100.0	50-130
05/08/95	DA*21196*1	9406061*SUR	Pentacosane	MG/KG	6.30	5.50	87.3	50-130
05/09/95	DA*21196*2	9406061*SUR	Pentacosane	MG/KG	6.30	6.30	100.0	50-130
05/05/95	DA*21196*3	9406061*SUR	Pentacosane	MG/KG	6.30	5.80	92.1	50-130
05/06/95	DA*21196*4	9406061*SUR	Pentacosane	MG/KG	6.30	5.80	92.1	50-130
05/06/95	DA*21196*5	9406061*SUR	Pentacosane	MG/KG	6.30	5.80	92.1	50-130
0[illegible]/95	DA*21196*6	9406061*SUR	Pentacosane	MG/KG	6.30	6.00	95.2	50-130
[illegible]95	DA*21196*7	9406061*SUR	Pentacosane	MG/KG	6.30	6.30	100.0	50-130
0[illegible]/95	DA*21196*8	9406061*SUR	Pentacosane	MG/KG	6.30	5.80	92.1	50-130
05/06/95	DA*21196*9	9406061*SUR	Pentacosane	MG/KG	6.30	5.50	87.3	50-130
05/06/95	DA*21196*10	9406061*SUR	Pentacosane	MG/KG	6.30	6.50	103	50-130
05/06/95	DA*21196*11	9406061*SUR	Pentacosane	MG/KG	6.30	5.80	92.1	50-130

ESE BATCH : P28137

Environmental Science and Engineering Analytical Services

Computer QC Checks

Ba+ ⌐ No.: P28137 Analysis Date: Analyst: BRENT DONALSON

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?		X	
Sample matrix spike within acceptance criteria?			
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

BATCH OVERRIDE BY: WILLIAM FRANEY 5985

FINALIZED BY: WILLIAM FRANEY 5985

Batch Narrative - P28137 Analysis: 8015/MOD

Updated by 5866

PROBLEM:

Sample matrix spike not present:

EXPLANATION: High unknown hydrocarbon levels in sample prevented quantitation of spikes

ESE BATCH : P28063
ANALYSIS : 8020

QC TYPE : ESE
T : LORI RITTENHOUSE
E. CTOR :
DATA ENTRY : LORI RITTENHOUSE

REPORT DATE/TIME : 05/16/95 10:31:39
ANALYSIS DATE : 05/04/95
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
8020/W

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
21196	BATCH	591-5101	ESE-HERNDON (LANTDIV)	BARBARA RAYA-HASH

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
21196*12	EQUIP BLK	05/04/95	01:52PM

ESE BATCH : P28063

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND	DET LMT
05/04/95	MB*HP7_A1562*1	34030*8020-P	Benzene	UG/L	0.17	1.00
05/04/95	MB*HP7_A1562*1	34010*8020-P	Toluene	UG/L	0.62	1.00
05/04/95	MB*HP7_A1562*1	34371*8020-P	Ethylbenzene	UG/L	0.2	1
05/04/95	MB*HP7_A1562*1	97234*8020-P	m-and/or p-Xylene	UG/L	0.7	1
05/04/95	MB*HP7_A1562*1	77135*8020-P	o-Xylene	UG/L	0.2	1

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
95	SP*HP7_A1562*1	34030*8020-P	Benzene	UG/L	50.0	52.2	104.4	68-129
/95	SP*HP7_A1562*1	34010*8020-P	Toluene	UG/L	50.0	49.0	98.0	65-125

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT	RPD
05/04/95	SPM1*21214*1	34030*8020-P	Benzene	UG/L	50.0	52.0	104.0	68-129	
05/04/95	SPM1*21214*1	34010*8020-P	Toluene	UG/L	50.0	48.6	97.2	65-125	
05/04/95	SPM2*21214*1	34030*8020-P	Benzene	UG/L	50.0	51.0	102.0	68-129	1.90
05/04/95	SPM2*21214*1	34010*8020-P	Toluene	UG/L	50.0	47.8	95.6	65-125	1.70

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
05/04/95	CCS*HP7_A1562*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	41	103	53-126
05/04/95	MB*HP7_A1562*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	40	100	53-126
05/04/95	SP*HP7_A1562*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/04/95	DA*21196*12	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	39	98	53-126
05/04/95	SPM1*21214*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	40	100	53-126
05/04/95	SPM2*21214*1	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	38	95	53-126
05/04/95	CCS*HP7_A1562*2	96100*SUR	AAA TRIFLUOROTOLUENE	UG/L	40	38	95	53-126

ESE BATCH : P28063

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: P28063 Analysis Date: 05/04/95 Analyst: LORI RITTENHOUSE

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

BATCH OVERRIDE BY:

FINALIZED BY: ROBERT PADDISON 3540

ESE Environmental Science & Engineering, Inc.
A CILCORP Company
250-A Exchange Place, Herndon, VA 22070
Phone: (703) 318-8900, Fax (703) 318-0411

Chain of Custody

SAMPLE TYPE:

HZ	Hazardous	SW	Surface Water
SO	Soil	WW	Waste Water
PW	Potable Water	SL	Sludge
GW	Ground Water	DW	Discharge Wtr.

LABORATORY:
Please send signed Chain of Custody form with analyses.

Client: CANTRIV
P.O. No:
Work Order No: 2295042G - 0200
Project Name: LITTLE CREEK TANK 304
Submit Report To: HAROLD THURSTON
Laboratory Samples sent to: BARB RAYA-HASH
Sampler: THAD DOYLE
Project Location: VA BEACH, VA
Analyses: TPH, BTEX, MOISTURE

Field Sample # / Sample Identification	Date	Time	COMP	GRAB	Total Number Of Containers	Sample Type (use reference)	BTEX (8020)	TPH (8015)	MOISTURE							PRESERVATION ICED	Specify chemicals added & final pH if known	Remarks:
MW-8 6-8'	5/1/95	1055		✓	3	SO	✓	✓	✓					21196-1		✓		HOT SAMPLE
MW-8 9-11	5/1/95	1100		✓	3		✓	✓	✓						-2			" "
MW-9 4-6'	5/1/95	1205		✓	3		✓	✓	✓						-3			X
MW-9 6-8'	5/1/95	1210		✓	3		✓	✓	✓						-4			X
MW-10 6-8'	5/1/95	0927		✓	2		✓	✓							-5			HOT SAMPLE
MW-10 9-11'	5/1/95	0937		✓	3		✓	✓	✓						-6			" "
MW-11 4-6'	5/1/95	1533		✓	3		✓	✓	✓						-7			" "
MW-11 6-8'	5/1/95	1538		✓	3		✓	✓	✓						-8			" "
MW-12 4-6'	5/1/95	1336		✓	3		✓	✓	✓						-9			X
MW-12 6-8'	5/1/95	1345		✓	3	SO	✓	✓	✓						-10	✓		X

Sample Relinquished by:	Date	Time	Sample Received by	Date	Time
[signature]	5/2/95	1800	Allan R. Hogan	5-3-95	9:00 am

LABORATORY:

Please: Return all Coolers to the **Herndon** *Office!*

3C

Copies: White & Yellow - Lab Pink: Retained by Sampler

ESE Environmental Science & Engineering, Inc.
A CILCORP Company
250-A Exchange Place, Herndon, VA 22070
Phone: (703) 318-8900, Fax (703) 318-0411

Chain of Custody

SAMPLE TYPE:

HZ	Hazardous	SW	Surface Water
SO	Soil	WW	Waste Water
PW	Potable Water	SL	Sludge
GW	Ground Water	DW	Discharge Wtr.

LABORATORY:
Please send signed Chain of Custody form with analyses.

Client: LANTDIV
P.O. No:
Work Order No: 22950420-0200
Project Name: LITTLE CREEK TANK 304
Submit Report To: HAROLD THURSTON
Laboratory Samples sent to: BARB RAYA-HASH
Sampler: THAD DOYLE
Project Location: VA BEACH, VA
Analyses: BTEX, TPH, MOISTURE

Field Sample # / Sample Identification	Date	Time	COMP	GRAB	Total Number Of Containers	Sample Type (use reference)	BTEX (8020)	TPH (8015)	MOISTURE									PRESERVATION ICED	PRESERVATION Specify chemicals added & final pH if known	Remarks:
FIELD DUP	5/2/95			✓	2	SO	✓	✓	✓					21196-11				✓		HOT
EQUIPMENT BLANK	5/2/95	1000		✓	3	GW	✓	✓								-12		✓	HCl	~~X~~

Sample Relinquished by:	Date	Time	Sample Received by	Date	Time
Thad Doyle	5/2/95	1800	Alan R. Hogan	5-3-95	9:00am

LABORATORY:

Please: Return all Coolers to the **Herndon** *Office!*

3C

APPENDIX D

Statement of Public Notice

STATEMENT OF PUBLIC NOTICE

Notice is hereby given that the Commander, Atlantic Division, Naval Facilities Engineering Command, Norfolk, in accordance with VR 680-B-02, Section 6.8 is implementing a Corrective Action Plan (CAP) at Naval Amphibious Base Little Creek, UST 304, Virginia Beach, Virginia. The CAP will address the mitigation of fugitive subsurface petroleum hydrocarbons by soil excavation. A copy of the CAP is available to the public for inspection at the Virginia Department of Environmental Quality's Tidewater Regional Office, Virginia Beach, Virginia.

APPENDIX E

CAP Application Form

CORRECTIVE ACTION PLAN GENERAL PERMIT REGISTRATION STATEMENT FOR CLEANUP OF RELEASES OF PETROLEUM PRODUCTS FROM UNDERGROUND STORAGE TANK (UST) SYSTEMS

1. Legal Name of UST System NAB Little Creek UST 304

2. Location of UST System (Address and Telephone Number)
NAB Little Creek, Building 304
Virginia Beach, Virginia
Telephone # 804-363-4571

3. UST System Owner/Operator NAB Little Creek, Code N462
Last Name First Name M.I.

4. Address of Owner/Operator 1450 Gator Boulevard
Street
Norfolk VA 23521-2616
City State Zip

5. Phone (804) 363-4571
Home Work

6. Type of petroleum product(s) causing or that caused contamination.
Diesel fuel

7. Has the corrective action plan for this site been submitted to the State Water Control Board, in accordance with Section 6.6 of VR 680-13-02? Yes X No __

8. Will the cleanup result in a point source discharge to surface waters? Yes __ No X

9. If yes, identify the waterbody into which the discharge will occur.

If no, identify the procedures that will be utilized to prevent a point source discharge to surface waters. All fluids removed from the excavation will be pumped into a vacuum truck and transported offsite for treatment and disposal.

10. Attach a topographic or other map which indicates the UST system, the receiving waterbody name and the discharge point, as well as property boundaries, wells, downstream houses, etc. within a 1/2 mile radius of the site.

11. The owner/operator must attach to this Registration Statement the notification from the governing body of the county, city or town required by Virginia Code Section 62.1-44.15:3.

12. Are central wastewater treatment facilities available to this site? Yes __ No _X_
If yes, has the option of discharging to the central facilities been evaluated? What was the result of that evaluation?

_____

_____

13. Does this UST system currently have a permit issued by the Board?
Yes __ No _ If yes, please provide permit number: _____

Certification:

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

Signature: _____ Date: _____

For Water Control Board use only:

Registration Statement Accepted/Not Accepted by: _____

Date: _____

Basin _____ Stream Class _____ Section _____

Special Standards _____

CORRECTIVE ACTION PLAN PERMIT APPLICATION FOR REMEDIAL ACTION TREATMENT AT SITES WITH GROUND WATER AND/OR SOILS CONTAMINATED WITH PETROLEUM PRODUCTS

General Information

1. Legal name of Facility NAB Little Creek, Building 304

2. Location of Facility (Address and Telephone Number)
   NAB Little Creek, Building 304
   Virginia Beach, Virginia
   Telephone # 804-363-4571

3. City or County Virginia Beach

4. a) Legal name of Facility Owner or Operator, Address and Telephone Number
   NAB Little Creek, Code N462
   1450 Gator Boulevard
   Virginia Beach, VA 23521-2616
   (804) 363-4571
   b) Nature of Business Diesel Fuel Dispenser, Government Motor Pool Vehicles
   c) Business SIC Code(s) NA

5. Site Cleanup/Contact (Name of Person, Company, Address, Telephone Number)
   Nancy Merhige, Code N462
   NAB Little Creek
   1450 Gator Boulevard
   Virginia Beach, VA 23521-2616
   (804) 363-4571

6. Type of Petroleum Product(s) or Regulated Substance Causing Contamination
   Diesel Fuel

7. Proposed facilities, or any facilities which have not previously been issued an effective VPDES or VPA permit must attach a completed Local Government Ordinance Form (LGOF) to this application. Form attached? Yes ___ No ___
If "No", then list permit number and name of permittee.
NA _____

Note: If a surface water discharge is proposed in the Corrective Action Plan, EPA General Form 1 and a VPDES Application Form 2D must be completed and submitted with the Corrective Action Plan Permit application. Application Form 2C may be required in place of Form 2D, if the applicant currently has an existing, permitted industrial discharge which is capable of accepting effluent resulting from the cleanup.

8. **Permit Certification:**
I hereby grant to duly authorized agents of the State Water Control Board, upon presentation of credentials, permission to enter the property for the purpose of determining the suitability of the Permit I have applied for. I certify under penalty of law that this document and all attachments, including the Initial Abatement Report, the Site Characterization report, Corrective Action plan, and the Corrective Action Plan Permit Application, were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I certify to the best of my knowledge the Corrective Action Plan has identified all contaminates at this site. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date _____

Title _____