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FINAL
TANK 44 CLOSURE ASSESSMENT REPORT
TANK FARM 4

NAVAL EDUCATION AND TRAINING CENTER
NEWPORT, RHODE ISLAND

REMEDIAL ACTION CONTRACT (RAC)
CONTRACT NO. N62472-94-D-0398
DELIVERY ORDER NO. 0013

Submitted to:
Northern Division
Environmental Branch, Code 18
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Lester, Pennsylvania 19113-2090

Submitted by:
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JANUARY 1999 (R1)

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Prepare in quintuplicate (original and 4 copies)

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N62472-94-D-0398	0013	Newport, Rhode Island

PROJECT TITLE:
Tank Farm 4 at NETC

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Foster Wheeler Environmental Corp/ Program QCM: Mark Miller	January 28, 1999
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TABLE OF CONTENTS

SECTION		PAGE
1.0	**Site Background**	**1**
	1.1 Introduction	1
	1.2 Location	1
	1.3 Site Description	1
	1.4 Site History	2
	1.5 Previous Investigations	2
	1.6 Summary of Tank 44 Construction	2
	1.7 Underground Utilities	3
	1.8 Geology	3
2.0	**Closure Actions**	**7**
	2.1 Mobilization	7
	2.2 Soil Excavation	7
	2.3 Tank Contents Removal And Storage	7
	2.4 Tank Cleaning	8
	2.5 Piping, Equipment, And Debris Removal	8
	2.6 Tank Closure	8
	2.7 Tank Demolition	8
3.0	**Tank Condition**	**9**
	3.1 Structural Inspection	9
	3.2 Closure Inspection	9
	3.3 Piping Inspection	9
	3.4 Pump Room Inspection	10
4.0	**Description Of Soil Conditions Surrounding Tank 44**	**11**
5.0	**Soil Sample Analytical Data Summary**	**12**
	5.1 Volatile Organic Compounds (VOC's)	12
	5.2 Semi-Volatile Organic Compounds (SVOC's)	18
	5.3 RCRA Metals	18
	5.4 Total Petroleum Hydrocarbons (TPH)	18
6.0	**Site Groundwater Description**	**19**
	6.1 Volatile Organic Compounds (VOC's)	19
	6.2 Semi-Volatile Organic Compounds (SVOC's)	19
	6.3 RCRA 8 Metals	19
7.0	**Analytical Sample Collection And Handling**	**22**
8.0	**Site Wellhead Protection Status**	**22**
9.0	**Site Groundwater Classification And Use**	**22**
10.0	**Potential Receptors**	**22**
11.0	**Findings and Conclusions**	**23**
	11.1 Findings	23
	11.2 Conclusions	23

TABLE OF CONTENTS

SECTION	PAGE
References	**24**

FIGURES

NUMBER		PAGE
1.1	NETC Location	4
1.2	Tank Farm 4 Location	5
1.3	Tank Farm 4	6
5.1	Tank 44 Data Sheet	16
6.1	Tank Farm 4 Groundwater Contours	20

TABLES

NUMBER		PAGE
5.1	Positive Contaminant Detection in Soil and Groundwater	13

APPENDICES

A	Permanent Closure Application For Underground Storage Facilities
B	Data For Tank Contents
C	Disposal Manifests/Bill-Of-Ladings
D	Degreaser Vendor Information
E	Manifests (Debris Disposal)
F	Structural Inspection
G	Boring Logs
H	Soil And Groundwater Analytical Results
I	Chain-Of-Custody Form
J	Test Pit Analytical Results
K	Blast Report

1.0 SITE BACKGROUND

1.1 INTRODUCTION

Foster Wheeler Environmental Corporation, prepared this Tank 44 Closure Assessment Report summarizing the investigation and closure activities conducted at Tank 44, located at Tank Farm 4 at the Naval Education and Training Center (NETC) in Newport, Rhode Island. Foster Wheeler Environmental Corporation is under contract to the Navy to carry out closure activities at Tank 44. This Assessment has been written by Foster Wheeler Environmental Corporation to satisfy the Rhode Island Department of Environmental Management (RIDEM) Regulation DEM-DWM-UST05-93 Section 15.10, as detailed by the July 1992 RIDEM guidance document entitled: Department of Environmental Management UST Closure Assessment Guidelines. This report was prepared at the request of the United States Navy , Northern Division (NORTHDIV) of the Naval Facilities Engineering Command (NAVFAC) under Delivery Order No. 0013 of the Remedial Action Contract N62472-94-D-0398.

The primary objective of this Assessment is to provide sufficient evidence to conclude whether or not a leak or a release has occurred from Tank 44 and to provide documentation necessary to complete a permanent underground storage tank (UST) closure, consistent with RIDEM regulations. The Assessment objectives were met by providing the field screening data of the soil samples collected during excavation actives and an inspection of Tank 44 after the cleaning was completed and using this data to determine if oil stored in Tank 44 has impacted the environment.

B&R Environmental (as Halliburton NUS Corporation) conducted a preliminary assessment of Tank Farm 4 between October 1994 and March 1995, to evaluate the impacts of past activities on soil and groundwater in the immediate vicinity of selected on-site facilities, including twelve large USTs. That information serves as the supporting documentation necessary to complete permanent closures of the 12 USTs evaluated in the assessment, and provides general information about Tank Farm 4 for this report.

This section presents background information concerning Tank 44, including site location, site description, site history, and construction details of structures pertinent to this investigation. A summary of the site geology is also presented in this section. Finally, the technical approach and the investigation and analytical methods are discussed.

1.2 LOCATION

Tank 44 is located in Tank Farm 4 of NETC Newport, which is located in the Towns of Newport, Middletown, and Portsmouth, Rhode Island, approximately 25 miles southeast of Providence (Figure 1-1). Tank Farm 4 is situated at the northern portion of NETC-Newport, in Portsmouth (Figure1-2). Tank 37 is located in the northern portion of Tank Farm 4 (Figure 1-3).

Tank Farm 4 is bordered by the Defense Highway to the north/northwest; Norman's Brook to the southwest; residential property to the southeast; and undeveloped woodlands to the north/northeast.

1.3 SITE DESCRIPTION

Tank Farm 4 is accessed from Defense Highway; it occupies approximately 90 acres and contains 12 USTs, numbered 37 through 48. These tanks were used to store virgin heavy fuel oil (no. 6 bunker oil). Several tanks were reportedly also used to store No.2 heating oil during the mid-1970s. Access to Tank Farm 4 is unrestricted. An unsecured gate is drawn across the entrance. A paved road leads into the tank farm, passing between the tanks in a loop.

On-site structures include the remnants of a building and a decommissioned electrical substation. Ground elevations across Tank Farm 4 range between 46 feet and 111 feet above mean low water level (mlw). Topography gradually slopes to the west/southwest, toward Narragansett Bay. The central portion of the

tank farm is vegetated with tall grass, dense brush, and trees. Dense brush and woodlands cover the perimeter areas of the tank farm. Brush at each tank has been cleared from work areas.

1.4 SITE HISTORY

In 1941, the U. S. Navy began construction of five tank farms at NETC to store fuel oils and other petroleum products to supply warships. Tank Farm 4 was used to store fuel oil from World War II until it was abandoned in the mid-1970s. For a brief period, from 1974 to 1978, three to four unidentified tanks were reportedly leased to Northeast Petroleum to store No. 2 heating oil. At the end of the lease period Northeast did not require the storage capacity and terminated the lease agreement. Northeast reportedly cleaned the tanks. Tank Farm 4 was not used for petroleum storage thereafter.

As a result of amendments to underground petroleum storage facilities regulations enacted by the State of Rhode Island in 1992, tanks used to store fuel oil also became subject to closure requirements. The Navy has filed an application with RIDEM to permanently close the tanks at Tank Farm 4 (see Appendix A).

1.5 PREVIOUS INVESTIGATIONS

B&R Environmental (as Halliburton NUS Corporation) conducted a preliminary assessment of Tank Farm 4 between October 1994 and March 1995, to evaluate the impacts of past site activities on soil and groundwater in the immediate vicinity of selected on site facilities, including twelve large USTs. This assessment report was the first investigation focusing on potential impacts to soil and groundwater from releases from the on-site USTs.

Previous investigation conducted at Tank Farm 4 from 1982 to 1992 focused on the reported disposal of tank bottom sludge's at the tank farms. Prior investigations are mentioned here for historical information purposes only.

An initial Assessment Study (IAS) was conducted by Envirodyne Engineers, Inc. in 1982 and 1983. Loureiro Engineering Associates conducted a Confirmation Study (CS) between 1983 and 1986. Results of the CS led to the conduct of a Phase 1 Remedial Investigation (RI) as part of the Department of Defense Installation Restoration (IR) Program. The RI included multi- media environmental sampling and analysis.

1.6 SUMMARY OF TANK 44 CONSTRUCTION

Tank 44 has a capacity of 60,000 barrels (standard petroleum), or approximately 2.5 million gallons. This tank was constructed in place, of reinforced concrete. Concrete in tank walls and roof has a nominal thickness of 12-inches, while the tank floor has a nominal thickness of 14-inches. Floor and wall joints were caulked at the time of construction. The outside diameter of the tank is 119 feet; the side measures 36 feet from the bottom of the footing to the top of the roof.

The Tank 44 construction sequence began by stripping the soil overburden, and then blasting and excavating between 10 and 30 feet of bedrock to create a steep walled bedrock "socket" in which the tank was built. The tank bottom was then placed 10 to 30 feet below the original bedrock surface as described in the following paragraph. Following tank completion, the annular space between the tank wall and the bedrock was backfilled with crushed bedrock and other locally derived material. Coarse to fine grained material were used, resulting in a general graded backfill with coarse bedrock at the bottom, and finer bedrock at the top. After backfill operations were completed, the tank top was covered with similar fill material.

The tank floor lies on a flat bedrock surface that has been leveled by filling depressions with cement. A 12-inch diameter reinforced concrete perforated drainpipe is embedded in gravel surrounding the base of the tank. Groundwater that infiltrates the pipe can be pumped out of the system, thus managing the water table elevation and limiting buoyant forces on the tank. The drain system is termed a ring-drain.

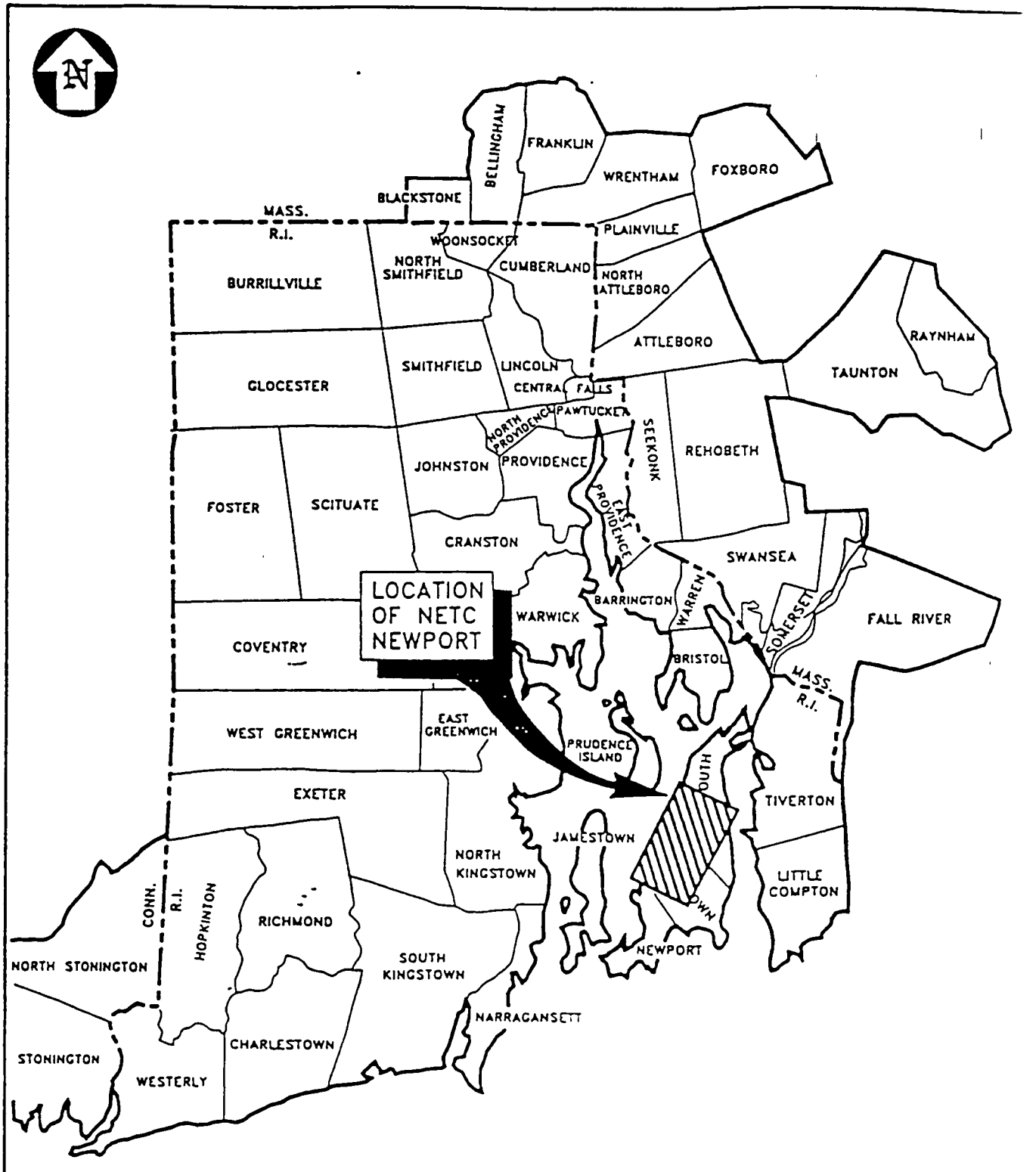
1.7 UNDERGROUND UTILITIES

Underground utilities consist of water, electricity, and telephone service. The exact location of the utilities could not be confirmed by base Digsafe services. Also, the existence of the telephone network shown on base maps could not be confirmed.

The utility lines to Tank 44 are insulated direct burial cable and are buried 5 to 7 feet below ground surface. Consequently, these utilities would be located above the ground water table and therefore would not act as a preferential migration pathway.

1.8 GEOLOGY

The NETC site, including Tank Farm 4, is located in the southeastern portion of Narragansett Basin. The basin is underlain by Pennsylvanian age non-marine sedimentary and metamorphic rocks, including the Rhode Island Formation. Bedrock at the site is reported to be a weathered shale; phyllites were also observed at borehole refusals. Overburden material consist of unconsolidated glacial sediments ranging from gravel to silt, as well as glacial till. Soil thickness at the tank farm is variable, and is estimated to be no more than 45 feet thick. Soil descriptions from preliminary Closure Assessment investigations indicate the presence of extensive fill materials in the vicinity of the tank because of the widespread disturbance of native soils during tank construction.

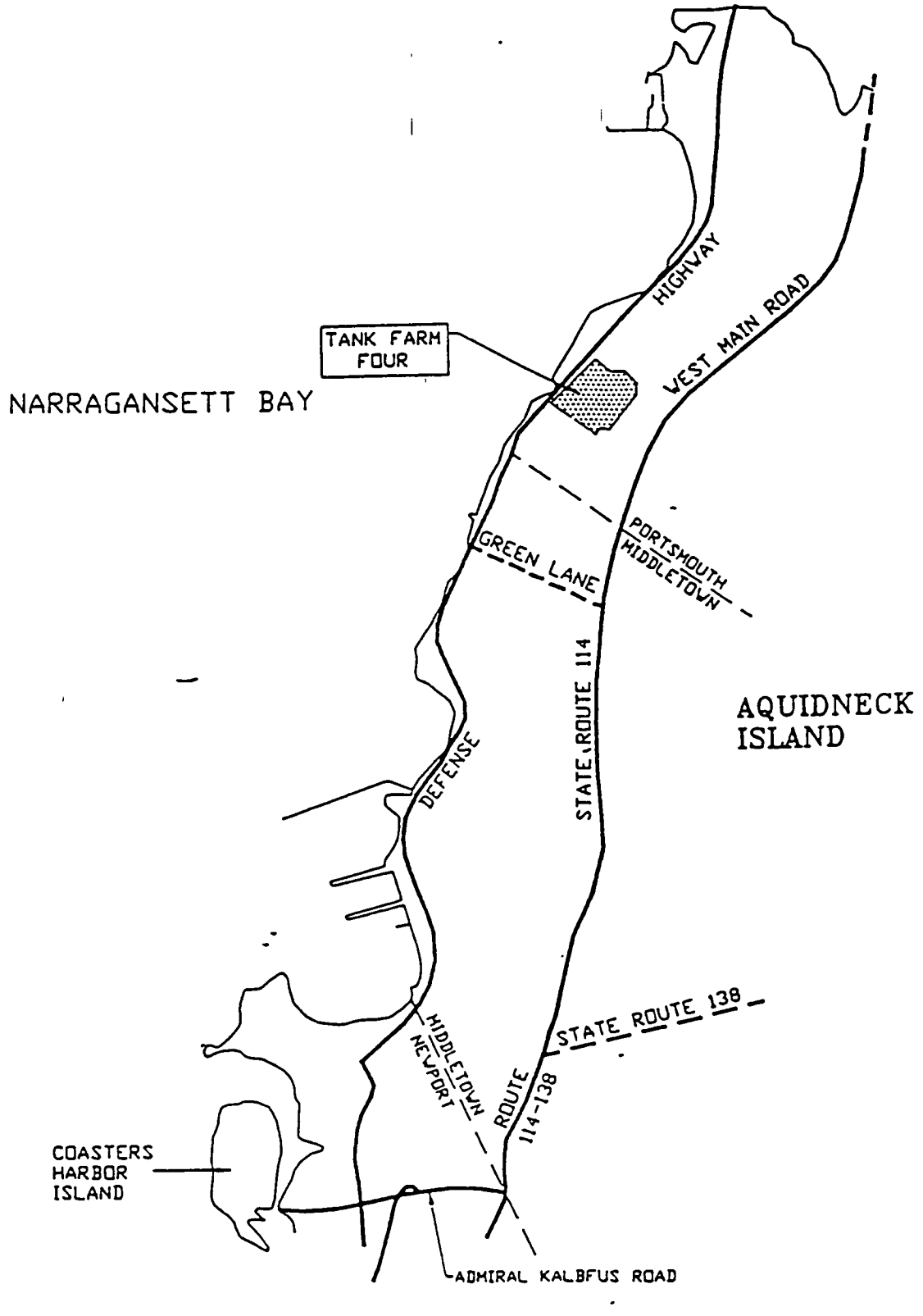


NETC LOCATION	FIGURE 1—1
NETC — NEWPORT, RI	
TANK 44 CLOSURE ASSESSMENT REPORT	

DRAWN BY:	R.C. DEWSNAP	REV.:	0
CHECKED BY:	J. FORRELLI	DATE:	21 NOV 95
SCALE:		PROJECT NO.	4643 CTO #196

Brown & Root Environmental
A Division of Halliburton NUS Corporation
55 Jonspin Road Wilmington, MA 01887 (508)658-7[illegible]

WS2951020



TANK FARM 4 LOCATION			FIGURE 1-2
NETC – NEWPORT, RI			Brown & Root Environmental
TANK 44 CLOSURE ASSESSMENT REPORT			A Division of Halliburton NUS Corporation
DRAWN BY: R.C. DEWSNAP	REV.: 0		55 Jonspin Road Wilmington, MA 01887 (508)658-7899
CHECKED BY: J. FORRELLI	DATE: 21 NOV 95		
SCALE: APPROX. 4800 FT.	PROJECT NO.: 4643 CTO #196		

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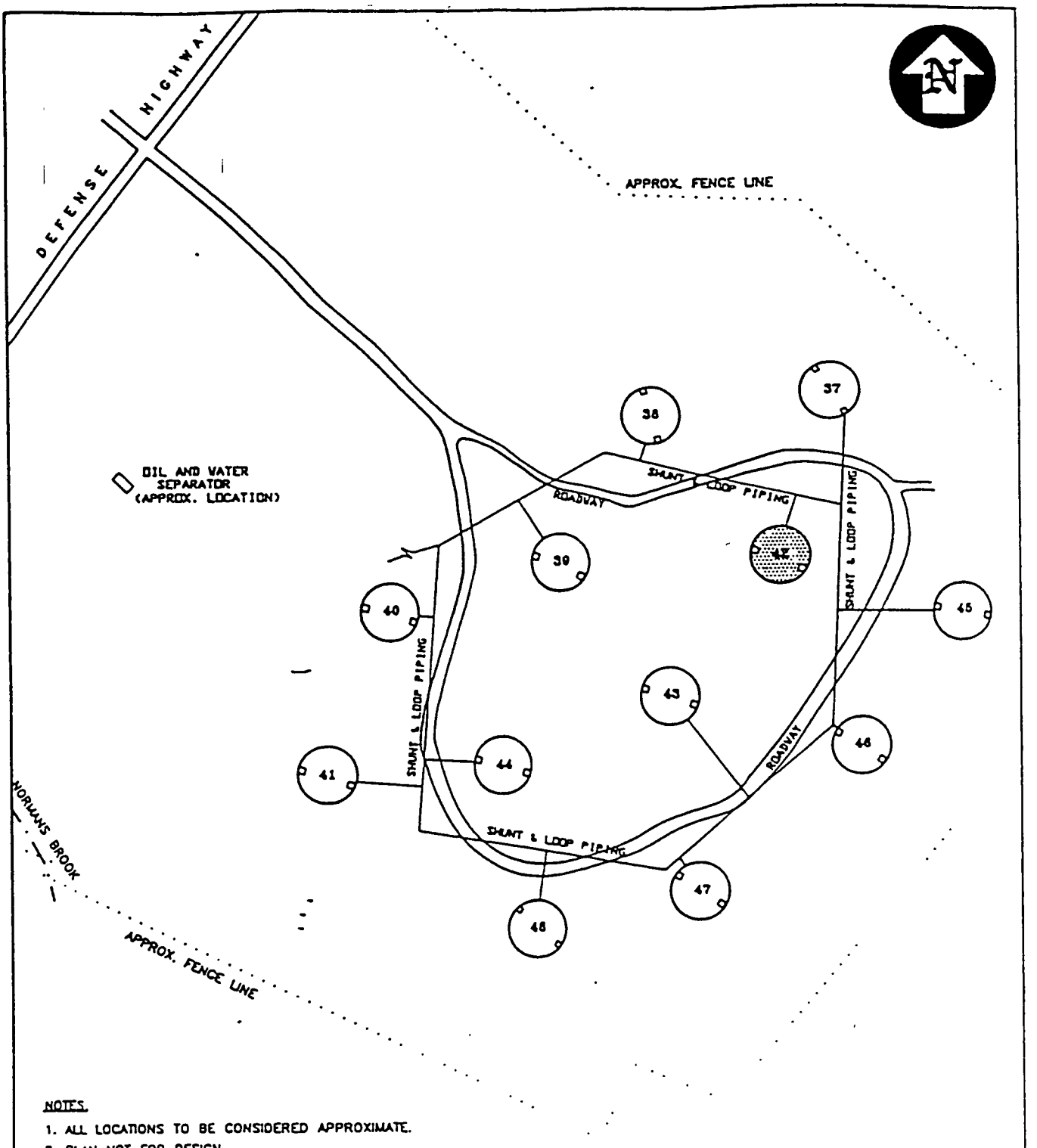


NOTES.

1. ALL LOCATIONS TO BE CONSIDERED APPROXIMATE.
2. PLAN NOT FOR DESIGN.

TANK FARM 4		FIGURE 1-3	
NETC – NEWPORT, RI		Brown & Root Environmental A Division of Halliburton NUS Corporation 55 Joseph Road Wilmington, MA 01887 (508)658-7899	
TANK 44 CLOSURE ASSESSMENT REPORT			
DRAWN BY:	R. DEWSNAP	REV.:	0
CHECKED BY:	J. FORRELLI	DATE:	07 DEC 95
SCALE:	1" = 300 FT. (APPROX.)	PROJECT NO:	4643 CTO #196

WS295102D

2.0 CLOSURE ACTIONS

2.1 MOBILIZATION

Foster Wheeler Environmental Corporation was retained by the Navy to conduct tank closure activities at Tank Farm 4. Following the submittal of all pre-construction documents, Foster Wheeler Environmental Corporation commenced mobilization activities at Tank Farm 4 on May 20, 1996. Consistent with the tank closure work plan and specification, a support zone was set up, the site was cleared and grubbed, and temporary fencing was erected to encompass each tank work area.

Tank specific closure activities began on June 3, 1996, by excavating and exposing of the tank tops. Two entry ports (7 feet by 9 feet and 9 feet by 13 feet) were subsequently cut and removed from each tank top to provide access to the tank interior for personnel and equipment. Tank access lid excavation and access port cutting activities were completed by July 10, 1996. Subsequent to tank lid excavation activities, the soil cover for the pump room chamber associated with each tank was excavated and the chamber's lid was exposed.

Tank gauging was conducted by Foster Wheeler Environmental Corporation in June of 1996. For tank gauging activities, the total overall depth of liquids in each tank was measured. The liquid phase was assumed to be oil/water/sludge, and an attempt was made to determine the thickness, or depth, of each phase of material. Volume estimates for Tank 44 are presented below.

PHASE	VOLUME(gallons)
Oil	**281,400**
Water	**2,000,000**
Sludge	**0**
Total	**2,281,400**

A sample of the oil and sludge layer was analyzed for off-site disposal characterization purposes. The analytical results for the oil and sludge layer are included In Appendix B.

2.2 SOIL EXCAVATION

During excavation activities conducted to expose the tank tops and pump chamber, all soils were visually observed and screened using a flame-ionization detector (FID). The Foster Wheeler Environmental Corporation soil management plan for Tank Farm 4 activities states that all soils having a FID reading of less than 10 ppm are considered non-impacted and will be reused on site. None of the excavated soils registered FID readings greater than 10 ppm and will be reused in accordance with the soil management plan.

2.3 TANK CONTENTS REMOVAL AND STORAGE

Tank contents removal activities began on November 5, 1996 and were completed by November 22, 1996. The water phase was pumped from the tank directly into Tank 43 for treatment and discharge to the POTW. When all water was removed the oil/sludge layer was pumped to 21,000 gallon above ground frac tanks. The oil/sludge was pumped onto transporters and disposed of off site at an approved facility. Refer to Appendix C for disposal Bill of Ladings. All wastewater generated during the tank cleaning was also pumped to Tank 43, including groundwater generated by ring drain pumping operations.

2.4 TANK CLEANING

Tank 44 interior surface cleaning operations commenced on November 22, 1996. The cleaning method employed consisted of a presoak with heated fuel oil and a heated caustic wash. The caustic wash unit had operating temperatures up to 180 degrees Fahrenheit, operating nozzle pressures up to 300 psi and a flow rate of 300 gpm. Caustic vendor information may be found in Appendix D. Pump room 44 cleaning operations consisted of flushing the interior pipe and removal of the pipe. Once the pipe was removed the cleaning process began. The cleaning method consisted of washing the surface with high pressure hot water utilizing a diluted water based industrial degreaser. Degreaser vendor information may be found in Appendix D.

2.5 PIPING, EQUIPMENT, AND DEBRIS REMOVAL

During Tank 44 surface cleaning operations, all piping and equipment was dismantled and decontaminated with high pressure hot water. All decontaminated, salvageable materials were sent to an approved scrap yard. All other debris, including spent personnel protective equipment from tank cleaning operations, is currently being disposed of off site at an approved disposal facility. Manifests for shipments to the facility are included in Appendix E.

2.6 TANK CLOSURE

On December 10,1996, prior to tank inspection (see section 3.2) and after the pipes were cleaned and dismantled, blind flanges were installed at the pipes entrances into the tank. Three pipe entrances were identified and blind flanged. These entrances are identified as follows:

One 16-inch line extending from the bottom of the pump room into the bottom of the tank

One 6-inch line extending from the bottom of the pump room into the bottom of the tank

One 10-inch line extending from the top of the pump room into the top of the tank

All blind flanges were installed on the tank's exterior side, within the pump room, and tank ballasting has been completed.

2.7 TANK DEMOLITION

15 test pits were excavated around the perimeter of Tank 44. The Test Pits were excavated to insure that the fill located on and around the tank was not contaminated. The 15 Test Pits were equally spaced around the tank with Test Pit No. 1 located on the North side of the tank. The Test Pits were excavated to the tank top and extended the same distance out from the tank. A composite sample was analyzed for VOC's, SVOC's, RCRA 8 Metals and TPH. The results for sample TP-TK44 and TP-TK44DUP are included as Appendix J. The tank had 15 feet of clean sand placed into the bottom of the tank and on 11-20-97 at 13:25 the tank top was imploded. The remaining hole was backfilled with clean borrow material. A copy of the blast report is included as Appendix K.

3.0 TANK CONDITION

3.1 STRUCTURAL INSPECTION

On December 10, 1996, Mark Gouveia of Foster Wheeler Environmental Corporation inspected the tank's interior to assess the structural integrity of the tank. During the inspection several small cracks were identified (less than 1/8 inch wide) on the tank floor. The columns appeared in good condition. The walls are clean and in good condition. Documentation regarding the inspection may be found in Appendix F.

3.2 CLOSURE INSPECTION

Tank 44 was formally inspected on December 11, 1996. Participating in the inspection were:

RIDEM
- Daniel Russell- Division of Waste Management
- Paul Kulpa- Division of Site Remediation

NETC
- Ray Roberge - Code 40E, Environmental

Foster Wheeler Environmental
- Jon Cary - Site Manager
- Roger Beauregard - Site Quality Control

During the inspection, all participants entered the tank's interior and viewed the cleaning surfaces. At the post inspection meeting, all participants agreed that the interior surface cleaning results were satisfactory.

3.3 PIPING INSPECTION

On December 10, 1996, an inspection was conducted for all pipe runs extending into the tank's interior from the pump room. Three pipe runs, each approximately ten feet long, were identified and inspected. The piping was inspected for cleanliness and the condition of each pipe run was noted.

Participating in the inspection were:

Mark Gouveia, Foster Wheeler Environmental- Site Engineer
Roger Beauregard, Foster Wheeler Environmental- Site QA/QC

Inspection observations are as follows:

One 10-inch pipe, located at the top of the pump room was identified and inspected. The pipe interior was clean and in good condition. No scaling, cracks, or holes were observed.

One 16-inch pipe, located at the bottom of the pump room was identified and inspected. The pipe interior was clean and in good condition. No scaling, or holes were observed.

One 6-inch pipe, located at the bottom of the pump room was identified and inspected. The pipe interior was clean and in good condition. No scaling, or holes were observed.

3.4 PUMP ROOM INSPECTION

On March 31, 1997 an inspection of the pump room was conducted for cleanness and over all condition of the walls and floors of the pump room.

Participating in the inspection are as follows:

Mark Gouveia, Foster Wheeler Environmental- Site Engineer

Roger Beauregard, Foster Wheeler Environmental- Site QA/QC

Jon Cary, Foster Wheeler Environmental- Site Manager

During the inspection all participants entered the pump room and viewed the clean surfaces. At the completion of the inspection all participants agreed that the pump room was clean and in good condition.

4.0 DESCRIPTION OF SOIL CONDITIONS SURROUNDING TANK 44

Drilling activities conducted as part of the Preliminary Closure Assessment were completed at Tank 44 on November 9, 1994 (HNUS 1995). At soil boring B-44, continuous split-barrel sampling was conducted from 20 feet below the ground surface (bgs) to refusal, at approximately 40 feet. The boring was completed as groundwater monitoring well MW-117.

The upper 20 feet of the boring was not examined. Soil sampling was initiated at 20 feet based on information suggesting that the water table was approximately this deep. It was presumed that petroleum releases above the water table would migrate vertically downward and be detected in soil and groundwater.

A generalized description of the subsurface follows. The interval from 20 to 26 feet bgs is comprised of gravel and sandy silt. From 26 to 30 feet bgs, sandy gravel and silts were observed. From 36 to 40 feet bgs silty gravel's with varying amounts of sand were noted. At 40 feet bgs weathered gray phyllite was observed. Bedrock reportedly consists of gray, highly weathered to competent, slightly metamorphosed shale with quartz lenses. Tank Farm 4-B-44 was not advanced into bedrock. Boring logs and soil descriptions are presented in Appendix G.

5.0 SOIL SAMPLE ANALYTICAL DATA SUMMARY

Consistent with the usage of Tank 44 as storage for virgin No. 6 fuel oil, the Preliminary Closure Assessment investigation at this UST focused on evaluating soils and groundwater for the presence of petroleum components. Soil samples were visually inspected for the presence of petroleum, screened for the presence of petroleum with PIDs and FIDs (as well as an Ensys Petro Risc petroleum field screening immunoassay kit), and subjected to laboratory analysis. Visibly stained soils were not field screened for TPH (using the immunoassay method) because the TPH concentration would exceed the 100 ppm standard, the highest concentration of TPH that could be detected by the screening analysis.

The following section describes the analytical data findings of the investigation activities conducted at this location. Subsurface soils were collected and sent to laboratories to be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbon (TPH) extractable, and eight RCRA metals.

From boring B-44 two subsurface soil samples were taken for laboratory analysis. Samples B442224 and B443638 were collected from depths of 22 to 24 feet bgs, and 36 to 38 feet bgs, respectively. They consisted of silty gravel. No evidence of visual petroleum contamination was observed. The MW-117 groundwater sample was collected from the midpoint of the well screen, approximately 35.5 feet bgs. No evidence of petroleum was observed during groundwater collection.

Positive laboratory analytical results are reported in Table 5-1 and presented on Figure 5-2. The averaged value of duplicate samples is reported in the summary table. In instances when samples have been reanalyzed the maximum detected concentration of each compound or metal is reported. Laboratory analytical results are presented in Appendix H. Results for groundwater are discussed in greater detail in section 6.0.

5.1 VOLATILE ORGANIC COMPOUNDS (VOCs)

No volatile organic compounds were detected in subsurface soil samples B442224 or B443638.

TABLE 5-1
POSITIVE CONTAMINANT DETECTION'S IN SOIL AND GROUNDWATER
TANK 44 CLOSURE ASSESSMENT REPORT
NETC NEWPORT, RHODE ISLAND

TABLE 3-8
POSITIVE CONTAMINANT DETECTIONS IN SOIL AND GROUNDWATER
TANK 44 SUMMARY
PRELIMINARY CLOSURE ASSESSMENT REPORT
TANK FARMS 4 & 5
NETC - NEWPORT, RHODE ISLAND

MEDIA	BORING NO. OR WELL NO.	DEPTH OR SCREEN INTERVAL	CONTAMINANT	CONCENTRATION	REGULATORY STANDARD(S)	EXCEEDS STANDARD(S) (YES/NO)
Soil	B44	22-24	Bis(2-ethylhexyl)phthalate	870 μg/kg	None	N/A
Soil	B44	22-24	Arsenic	13.3 mg/kg	None	N/A
Soil	B44	22-24	Barium	6.6 mg/kg	None	N/A
Soil	B44	22-24	Cadmium	1.7 mg/kg	None	N/A
Soil	B44	22-24	Chromium	11.9 mg/kg	None	N/A
Soil	B44	22-24	Lead	6.9 mg/kg	150 ppm (3) 400 ppm (4)	No
Soil	B44	36-38	Bis(2-ethylhexyl)phthalate	73 μg/kg	None	N/A
Soil	B44	36-38	Arsenic	12.9 mg/kg	None	N/A
Soil	B44	36-38	Barium	6.9 mg/kg	None	N/A
Soil	B44	36-38	Cadmium	2.4 mg/kg	None	N/A
Soil	B44	36-38	Chromium	10.8 mg/kg	None	N/A
Soil	B44	36-38	Lead	4.8 mg/kg	150 ppm (3) 400 ppm (4)	No
Groundwater	MW117	33-38	2-Butanone	2 μg/kg	None	N/A

TABLE 3-8 (CONTINUED)
POSITIVE CONTAMINANT DETECTIONS IN SOIL AND GROUNDWATER
TANK 44 SUMMARY
PRELIMINARY CLOSURE ASSESSMENT REPORT
TANK FARMS 4 & 5, NETC - NEWPORT, RHODE ISLAND
PAGE 2

Legend:

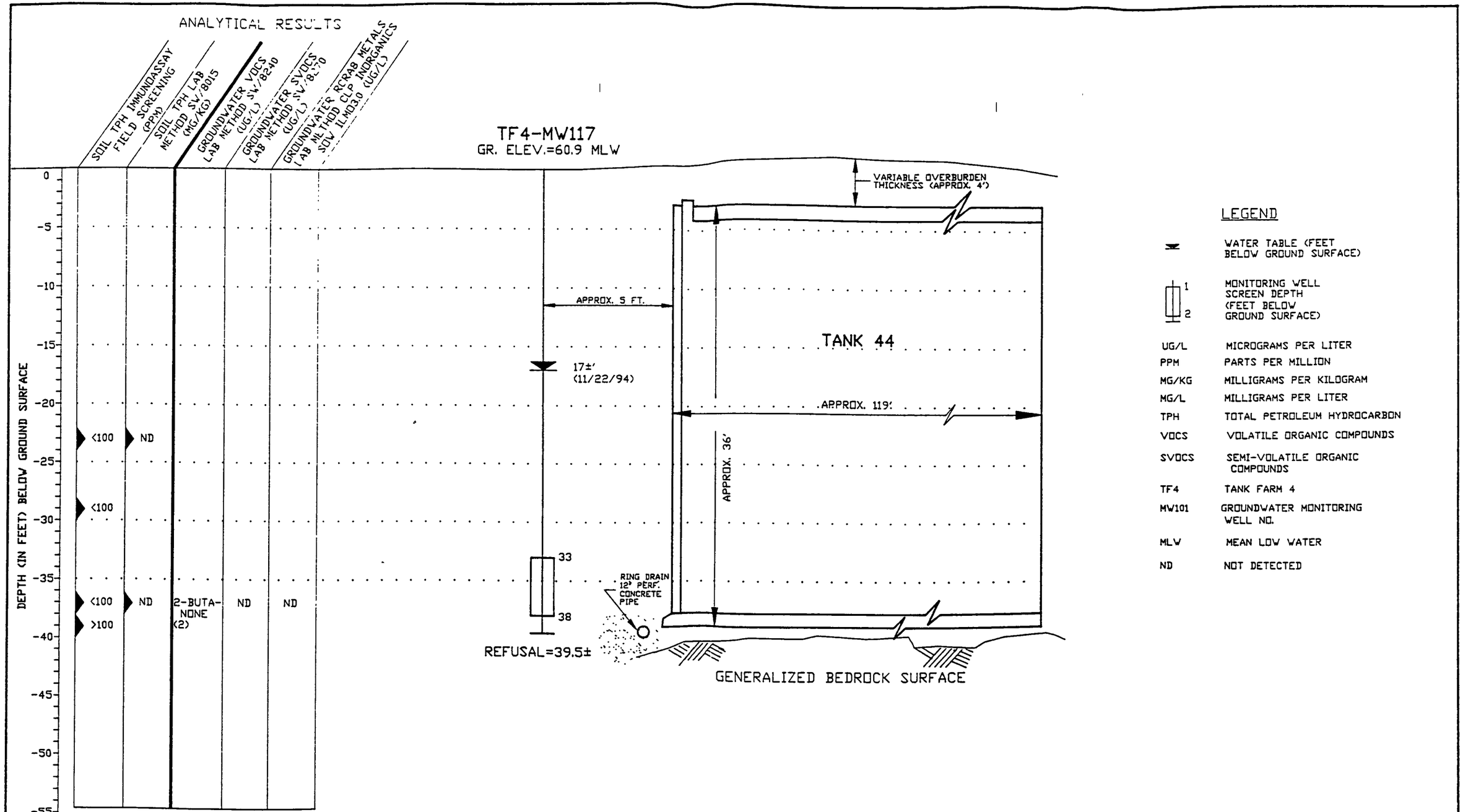
ppm-parts per million
µg/L-micrograms per liter
mg/kg-milligrams per kilogram
µg/kg-micrograms per kilogram
N/A-N t Applicable

Notes:

1) U.S. EPA Drinking Water Regulations and Health Advisories, EPA 822-R-94-001, May 1994.
2) State of Rhode Island Department of Environmental Management, Rules No. 12-100-006, Rule and Regulations for Groundwater Quality, Section 10, July 1993.
3) **Rhode Island Department of Health - Environmental Lead Program, [R23-24.6-PB], Rules and Regulations for Lead Poisoning Pr vention, February 1992 (with amendments).**
4) **OSWER Directive 9355.4-12- Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities.**
5) 40 CFR Part 264 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities, Subpart F, Sections 264.92 - 264.94, July 1991.
6) State of Rhode Island criteria established for clean-up of TPH in non-sensitive environmental areas.

- **MW117 was installed in boring location B44.**
  Sample valves were averaged with applicable duplicates.
- **In cases where samples were reanalyzed, the maximum detected concentration was reported.**
- **For comparative purposes only, mg/kg unit designations and ppm unit designations were considered to be equivalent.**
- For comparative purposes only, Regulatory Standard unit designations have been converted to the unit of the detected contaminant. Regulatory Standards are typically expressed in milligrams per liter (mg/l).

FIGURE 5-1
TANK 44 DATA SHEET
TANK 44 CLOSURE ASSESSMENT REPORT
NETC NEWPORT, RHODE ISLAND



DATA SHEET – TANK 44			FIGURE 3–8
NETC–NEWPORT, RI			Halliburton NUS CORPORATION
PRELIMINARY CLOSURE ASSESSMENT REPORT			55 Jonspin Road Wilmington, MA 01887 (508)658–7899
DRAWN BY: R.G. DEWSNAP	REV.: 1		
CHECKED BY: J.B. HOLDEN	DATE: 5 JUN 95		
SCALE: 1" = 8' (APPROX.)	FILE NO.: C:\DWG\NETC\FIG_3-8		

5.2 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)

Bis(2-ethylhexyl) phthalate was detected in both samples, at concentrations of 870 micrograms per kilogram and 73 microgram per kilogram respectively. Phthalates are typically used as plasticizers in the manufacturing of PVC and other plastic (Howard 1989; Sittig 1981) including plastics used in analytical laboratories.

5.3 RCRA METALS

Arsenic, barium, cadmium, chromium, and lead were detected in both of the subsurface soil samples collected from B-44. Concentrations of these metals ranging from 4.8 to 6.9 milligrams per kilogram were reported. The source of these metals has not been evaluated. However, metals are not typically associated with storage of virgin fuel oil.

5.4 TOTAL PETROLEUM HYDROCARBONS (TPH)

TPH was not detected in subsurface samples. Subsurface samples B442224, B442830, B443638, and B443840 were field screened for TPH. The samples were collected from 22 to 24 feet, 28 to 30 feet, 36 to 38 feet, and 38 to 40 feet bgs, respectively. Field screening results for samples B442224, B442830, and B443638 were less than 100 ppm. Field screening for sample B443840 were greater than 100 ppm. (Figure 5-1).

6.0 SITE GROUNDWATER DESCRIPTION

Water levels in Tank Farm 4 monitoring wells were measured to a hundredth-of-a-foot accuracy using an electronic measuring device. The relative elevation of each monitoring well was determined by a land surveyor registered in the State of Rhode Island, and the depth of the water table was established using measurements made from November 2 to 29, 1994. From these data, groundwater flow direction was characterized and a water table map (Figure 6-1) was created for Tank Farm 4. Groundwater generally flows west-southwest toward Narragansett Bay and is slightly affected by Norman's Brook

MW-117 is approximately 5 feet from the perimeter of Tank 44 and was installed slightly crossgradient to the tank. It is assumed that petroleum resulting from a release would accumulate in the ring drain A well installed in the ring drain would therefore serve as a monitoring point for a release of petroleum product from this tank. The MW -117 well screen was set 33 to 38 feet bgs to correspond with the estimated depth of the ring drain, based on available information, the ring drain typically extends from the bedrock surface to a point approximately 1 to 2 feet above the tank bottom. Refusal was interpreted as the bedrock surface Therefore the ring drain was estimated to be approximately 40 feet bgs. The well boring log is presented in Appendix G

The depth to groundwater table was 12 80 feet bgs on May 10, 1996 Seasonal and precipitation effects on groundwater levels have not been evaluated at the site Therefore, this single measurement may not be representative of the actual groundwater table

Groundwater samples were collected from MW-117 and were analyzed for VOC's, SVOC's, and the eight RCRA metals. The results of these are summarized below and presented in Table 5-1 and Appendix H

6.1 VOLATILE ORGANIC COMPOUNDS (VOC's)

2-butanone was detected in groundwater at a concentration of 2 micrograms per liter

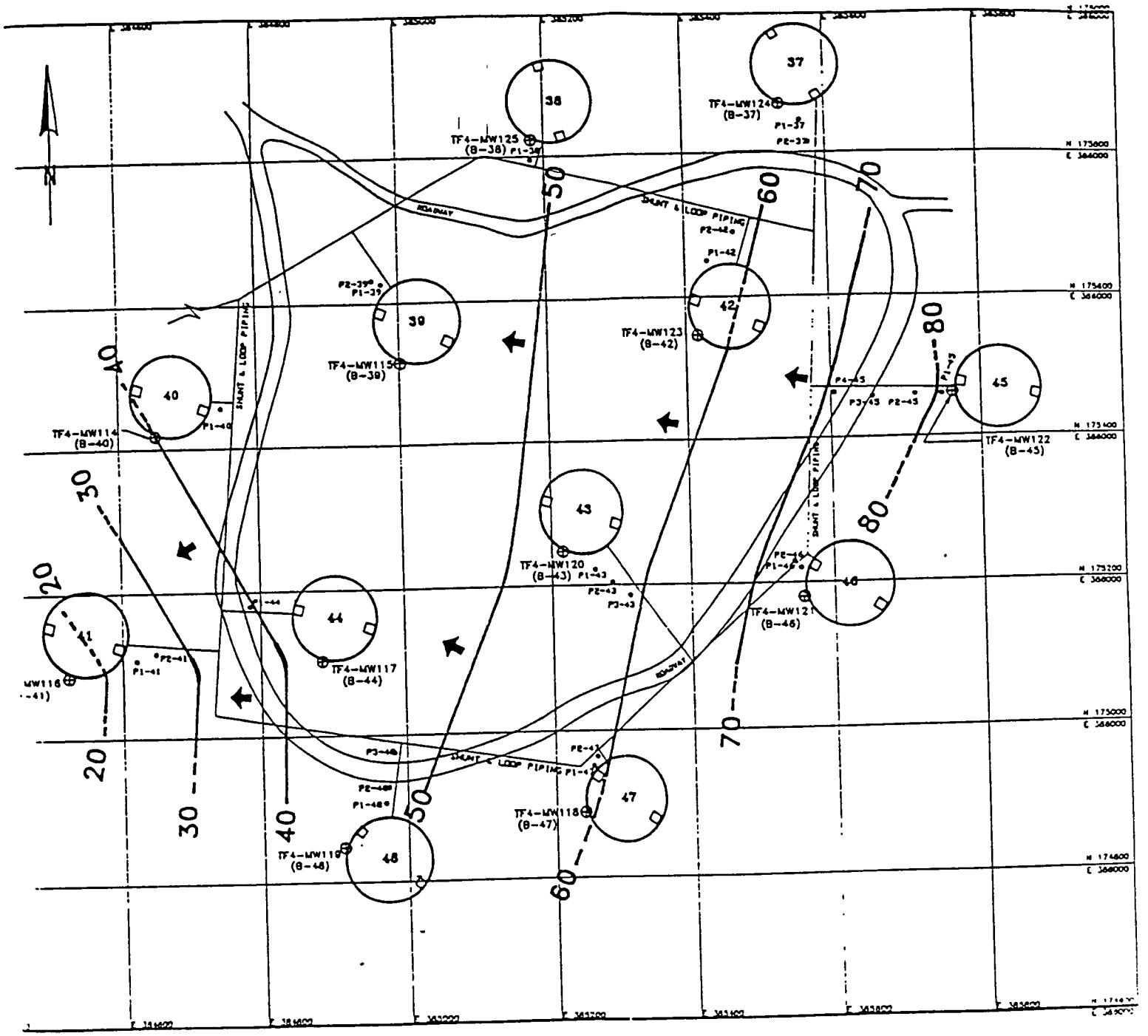
6.2 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOC's)

No analytes exceeded detection limits in the groundwater sample collected from MW-117

6.3 RCRA METALS

No metal concentrations were detected in groundwater sample collected from MW-117

FIGURE 6-1
TANK FARM 4 GROUNDWATER CONTOURS
TANK 44 CLOSURE ASSESSMENT REPORT
NETC NEWPORT, RHODE ISLAND



TANK FARM 4

MONITORING WELLS AT TANK FARM #4		FIGURE 2-1
NETC-NEWPORT, RI		Halliburton NUS CORPORATION
TANK 44 CLOSURE ASSESSMENT REPORT		
DRAWN BY R.G. DEWSNAP	REV.. 0	55 Jonspin Road Wilmington, MA
CHECKED BY K. JALKUT	DATE. 5 JUN 95	(508)658-7899
SCALE. 1" = 200'	FILE NO C:\DWG\NETC\TNK_FM4.DWG	

7.0 ANALYTICAL SAMPLE COLLECTION AND HANDLING

Soil and groundwater samples were collected and analyzed to Naval Facilities Engineering Services Center requirements. All environmental samples collected as part of this tank closure were stored and shipped in accordance with the chain-of-custody procedures outlined in Foster Wheeler Environmental Corporation's Quality Assurance/Quality Control Plan.

Sample chain-of-custody forms are presented in Appendix I. Sample analyses were conducted by Ceimic Laboratories of Narragansett, Rhode Island and Nytest Environmental of Port Washington, New York. Analytical results are presented in Appendix H.

8.0 SITE WELLHEAD PROTECTION STATUS

Tank 44 is not within a designated wellhead protection area.

9.0 SITE GROUNDWATER CLASSIFICATION AND USE

The groundwater beneath Tank 44 is classified by RIDEM as "GA". GA classified groundwater is primarily located in recreational or agricultural areas and in areas of sources of potable water. Groundwater classified as GA is categorized as or presumed to be suitable as drinking water without treatment.

Tank Farm 4 and all land hydraulically downgradient of the tank farm is owned by the federal government. A review of Newport Water Department records by HNUS in March 1995 indicates that no private or public potable water wells are located on or in the vicinity of the site.

10.0 POTENTIAL RECEPTORS

The potential receptor of a release from Tank 44 is Narragansett Bay. Tank Farm 4 groundwater generally flows west-southwest toward Narragansett Bay and shallow groundwater in the southern portion of the site may flow toward Norman's Brook. Petroleum dissolved in and migrating with groundwater may discharge to both of these surface waters. No private wells or basements that could be affected by a release from Tank Farm 4 are known to exist (see section 9.0).

11.0 FINDINGS AND CONCLUSIONS

11.1 FINDINGS

Tank 44 has been emptied of its contents, cleaned, demolished, and backfilled. This tank has passed both the Navy structural integrity inspection and RIDEM post-closure inspection for completeness of oil removal. Following the inspections the tank was demolished and backfilled to final closure.

Laboratory analytical results of the site soils and groundwater collected immediately adjacent to Tank 44 were evaluated with respect to one or more of the following regulatory standards:

Rhode Island Department of Health Lead Poisoning Prevention Standard

U.S. EPA Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities

Rhode Island Department of Environmental Management (RIDEM) Groundwater Quality Standard and Preventative Action Limits

U.S. EPA Safe Drinking Water Act (SDWA) Maximum Contaminant Levels (MCLs)

RCRA Groundwater Protection Standard.

Rhode Island Department of Environmental Management (RIDEM) Action Levels for TPH in Soils

The Rhode Island Department of Health "lead-free" standard (1992) for soil was used in the evaluation of the detected lead result in subsurface soil sample B442224 and B443638. This standard, 150 milligram per kilogram, is designed for the protection of children in residential setting. Because anticipated future land use of Tank Farm 4 is not for residential purposes, this standard is used for comparative purposes only.

The U.S. EPA guidance (1994a) for CERCLA Sites and RCRA Corrective Action Facilities was also used to evaluate the detected lead result. This directive recommends a 400 ppm screening level for lead in soil designated for residential land use. For the primary reason stipulated above, this guidance is also used for comparative purposes only. The B442224 and B443638 soil concentrations (6.9 mg/kg and 4.8 mg/kg) do not exceed either of these standards.

All of the TPH sample concentrations were below the detection limits in the subsurface soil samples. Where detected, VOC, SVOC, and metals soil concentrations were below applicable standards.

Groundwater beneath Tank Farm 4 has been assigned a "GA" classification, which identifies it as a groundwater resource that is suitable for drinking water use (RIDEM1993). When available, RIDEM GA Groundwater Standards are used for comparison. In cases where RIDEM has not established standards, SDWA "MCL's for Chemicals Detected in Groundwater" are used for comparison.

11.2 CONCLUSIONS

Based on an evaluation of the above data there is no evidence to indicate that a petroleum release occurred at Tank 44. The absence of fuel-related compounds in soil and groundwater adjacent to Tank 44 indicates that a release of heavy fuel oil has not occurred into the environment. No further action is required.

REFERENCES

REFERENCES

Halliburton NUS Corporation, 1995b. "Preliminary Closure Assessment Report of Tank Farms 4 and 5, Naval Education and Training Center, Newport Rhode Island" March 1995.

Halliburton NUS Corporation, "Site Investigation Report Tanks 38, 42, 45, and 48 Tank Farm 4, Naval Education and Training Center, Newport Rhode Island" February 1996.

Rhode Island Department of Environmental Management, 1992. "UST Closure Assessment Guidelines"

Brown and Root Environmental "Tank 42 Closure Assessment Report Tank Farm 4, Naval Education and Training Center, Newport, Rhode Island" December 1995.

Rhode Island Department of Environmental Management, 1993. "Rules and Regulations for Groundwater Quality", Rule No. 12-100-006

Rhode Island Department of Health, 1992. "Rules and Regulations for Lead Poisoning Prevention, R23-24.6-PB"

U.S. EPA, 1994b. "Drinking Water Regulations and Health Advisories", EPA 822-R-94-001

APPENDIX A
PERMANENT CLOSURE APPLICATION FOR UNDERGROUND STORAGE FACILITIES

I. DESCRIPTION OF TANKS TO BE CLOSED

TANK NO.	AGE	DATE LAST USED	VOLUME	CONSTRUCTION MATERIAL	STORED MATERIAL
037	48	79	2,500,000	Concrete	#6 Fuel Oil
038	48	79	2,500,000	Concrete	#6 Fuel Oil
039	48	79	2,500,000	Concrete	#6 Fuel Oil
040	48	79	2,500,000	Concrete	#6 Fuel Oil
041	48	79	2,500,000	Concrete	#6 Fuel Oil
042	48	79	2,500,000	Concrete	#6 Fuel Oil
043	48	79	2,500,000	Concrete	#6 Fuel Oil

(If there are more tanks being closed please list on attachment)

J. FEES:
Closure: NUMBER OF TANKS 7 X $75.00 PER TANK = 525
Registration: NUMBER OF TANKS ____ X $35.00 PER TANK = ____

K. Have these tanks ever held non-petroleum, hazardous materials

____ YES x NO

If yes, then list materials: _____

L. After the closure(s) have been completed on the aforementioned tanks, will there be any underground storage tanks remaining in existence at this facility? ____ YES x NO

Will any new UST(s) be installed on the site?
____ YES x NO

CLOSURE PROCEDURE (SELECT ONE):

1. ____ Precision test and fill with iner material. (Section 15.12).
Material used for filling tank: _____

NOTE: APPROVED PRECISION TEST METHOD MUST BE CONDUCTED BY A LICENSED TESTER AND RESULTS MUST BE SUBMITTED TO DEM PRIOR TO FILLING THE TANK IN PLACE.

2. x Excavate, clean, and dispose (Section 15.11)
(Note: Tanks to be demolished and left in place following tank cleaning.)
a. Specify method of tank cleaning: Power Wash

I. DESCRIPTION OF TANKS TO BE CLOSED

TANK NO.	AGE	DATE LAST USED	VOLUME	CONSTRUCTION MATERIAL	STORED MATERIAL
044	48	79	2,500,000	Concrete	#6 Fuel Oil
045	48	79	2,500,000	Concrete	#6 Fuel Oil
046	48	79	2,500,000	Concrete	#6 Fuel Oil
047	48	79	2,500,000	Concrete	#6 Fuel Oil
048	48	79	2,500,000	Concrete	#6 Fuel Oil

(If there are more tanks being closed please list on attachment)

J. FEES:

Closure: NUMBER OF TANKS 5 X $75.00 PER TANK = 375

Registration: NUMBER OF TANKS _____ X $35.00 PER TANK = _____

b. Specify method of disposing of tank sludge or waste generated by cleaning process. List name of waste hauler. Tank sludges will be characterized and disposed of accordingly. Hauler yet to be determined. Cleaning wastes will be treated on site in water treatment facility.

c. Specify whether cleaning will take place:
on site x off-site _____

i. If off-site, indecate location of final tank cleaning
Firm/Address: _____
_____
_____

ii. Indicate firm which will transport tank(s) to site indicated in c(i) above:
Firm/Address: N/A _____
_____
_____

NOTE: FIRMS TRANSPORTING TANK SLUDGE AND WASTE OR TANKS WHICH REQUIRE FURTHER CLEANING MUST BE PERMITTED BY DEM (DIVISION OF AIR & HAZARDOUS MATERIALS) AS HAZARDOUS WASTE TRANSPORTERS.

D. Will tanks(s) be...
rendered unfit for use and disposed of x or reused ____?
(Note: Tanks to be demolished and left in place following tank cleaning.)

NOTE: REUSE OF A TANK IN THE GROUND REQUIRES COMPLIANCE WITH SECTION 12.03 OF STATE UST REGULATIONS.

Location for final tank(s) disposal:

Tanks to be left in place
following partial demolition
_____

If tank is to be reused, specify:

Proposed use: _____

Name/Address of intended user: _____
_____
_____
_____

CERTIFICATION BY TANK OWNER

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 property gather and evaluate the infomation 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 completed. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME OF OWNER: (Please print) J.C. Wyman, Capt, CEC, USN
SIGNATURE: _____
TITLE Director for Public Works
ADDRESS: NETC,PWD, Bldg 1, 1 Simonpietri Dr, Newport,RI 02841
TELEPHONE: 841-3841

NOTIFICATION OF LOCAL FIRE DEPARTMENT

The authorization signature of the local fire department below indicates that the local fire officials have been notified that you are planning to close an underground storage tank at the above location. YOU MUST NOTIFY THE LOCAL FIRE DEPARTMENT OF THE EXACT CLOSURE DATE AFTER YOU HAVE CONFIRMED THIS DATE WITH DEM.

_____	_____
Authorized Local Fire Department Representative	Date
NETC Fire Department	841-2225
Name of Local Fire Department	Telephone Number

This signature dose not serve as notice to the town, dose not guarantee town approval, and dose not relieve you of your obligations to other applicable town officials. Any violation, deficiency or requirement which may have been overlooked is also subject to correction under the provision of any applicable code.

DEM
DIVISION OF BUSINESS AFFAIRS

A. NO. OF TANKS_____ X 75.00 = _____
B. NO. OF TANKS_____ X 35.00 = _____
TOTAL FEE = ____ (A) - _____ (B) = _____
FULL PAYMENT RECEIVED ON _____ (DATE)

SUPPLEMENT TO THE PERMANENT CLOSURE APPLICATION FOR USTs

This supplement must accompany all Permanent Closure Applications for USTs (as revised 12/93 and earlier) received by the Rhode Island Department of Environmental Management on or after August 25, 1993.

FACILITY NAME: Tank Farm 4

FACILITY ADDRESS: NETC, PWD Bldg 1
1 Simompietri Drive
Newport, RI 02841

PROPOSED CLOSURE DATE: 10 June 96

FACILITY REGISTRATION #: 15007

*** Please note that the UST registration fee has increased to $50.00 per tank. Payment of all unregistered tanks must be submitted with this application.**

1. Has a check in the total amount of $50.00 per unregistered tank been submitted with this application? N/A
   (Previously submitted with original application)
2. In the space provided below, please draw an informal sketch of the location of each UST to be permanently closed. Number each tank to coincide with the tank numbers on your UST registration form.
   (See attached site plan)

(Note: for questions 3-7 please refer to Tank Farm 4 Work Plan)

3. Describe the method to be used to empty the tank(s) prior to excavation. _____

4. Describe the method to be used to remove the tank from excavation. _____

5. Describe the method(s) to be used to properly and safely vent the tank(s) and properly make openings in the tank(s).
   _____
   _____
   _____

*** NOTE: Appropriate venting must be carried out both before the cutting of any tank and before off-site transport of any tank which has not been completely cleaned per Rule 15.11(c) of the UST Regs.**

6. Describe the instruments used to verify that the tank(s) have been properly vented. _____

7. Describe how any residues remaining in the tank(s) will be managed. _____

VOLATILE ORGANICS ANALYSIS DATA SHEET

44SLG

Lab Name: NYTEST ENV INC Contract: 9622627

Lab Code: NYTEST Case No.: 28473 SAS No.: SDG No.: TANK2

Matrix: (soil/water) WATER Lab Sample ID: 2847313

Sample wt/vol: 1.0 (g/mL) ML Lab File ID: P1746.D

Level: (low/med) LOW Date Received: 07/25/96

% Moisture: not dec. _____ Date Analyzed: 08/02/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) MG/L	Q
75-01-4	Vinyl Chloride	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
56-23-5	Carbon Tetrachloride	0.05	U
79-01-6	Trichloroethene	0.05	U
71-43-2	Benzene	0.06	
127-18-4	Tetrachloroethene	0.05	U
108-90-7	Chlorobenzene	0.05	U

FORM I VOA TCLP

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

44SLG

Lab Name: NYTEST ENV INC Contract: 9622627

Lab Code: NYTEST Case No.: 28473 SAS No.: SDG No.: 28473

Matrix: (soil/water) WATER Lab Sample ID: 2847313

Sample wt/vol: 1000 (g/mL) ML Lab File ID: R1965.D

Level: (low/med) LOW Date Received: 07/25/96

% Moisture: not dec. 0 dec. Date Extracted: 07/30/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/03/96

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) MG/L	Q
95-48-7	2-Methylphenol	0.03	
	3+4-Methylphenol	0.04	
121-14-2	2,4-Dinitrotoluene	0.01	U
118-74-1	Hexachlorobenzene	0.01	U
87-68-3	Hexachlorobutadiene	0.01	U
67-72-1	Hexachloroethane	0.01	U
98-95-3	Nitrobenzene	0.01	U
87-86-5	Pentachlorophenol	0.05	U
110-86-1	Pyridine	0.01	U
95-95-4	2,4,5-Trichlorophenol	0.01	U
88-06-2	2,4,6-Trichlorophenol	0.01	U
106-46-7	1,4-Dichlorobenzene	0.01	U

REPORT OF ANALYSIS

Log in No.: 28473

We find as follows:

Sample Identification	Parameter(s)		
	Ignitability degrees F	Reactivity S ppm	Reactivity Cn ppm
2847301 40OIL	>212	1.0 U	1.0 U
2847302 39OIL	>212	1.0 U	1.0 U
2847303 39SLG	>212	1.0 U	1.0 U
2847304 41OIL	>212	1.0 U	1.0 U
2847305 47OIL	>212	1.0 U	1.0 U
2847306 47SLG	>212	1.0 U	1.0 U
2847307 46OIL	>212	1.0 U	1.0 U
2847308 46SLG	>212	1.0 U	1.0 U
2847309 38OIL	>212	1.0 U	1.0 U
2847310 37OIL	>212	1.0 U	1.0 U
2847311 38SLG	>212	1.0 U	1.0 U
2847312 44OIL	>212	1.0 U	1.0 U
2847313 44SLG	>212	1.0 U	1.0 U
2847314 37SLG	>212	1.0 U	1.0 U
Method blank	NA	1.0 U	1.0 U

NA = Not Applicable
U = below method blank / method detection limit

PCB - FORM 1

NYTEST ENVIRONMENTAL INC.

TCL PCB ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX:	MISC	SAMPLE ID:	44SLG
CONC. LEVEL.	MED	LAB SAMPLE ID.	2847313
EXTRACTION DATE	07/29/96	DIL FACTOR.	1.00
ANALYSIS DATE.	08/06/96	% MOISTURE	NA

UG/L

CMPD #	CAS Number	PCB COMPOUND	
1	12674-11-2	Aroclor-1016	1 0 U
2	11104-28-2	Aroclor-1221	1 0 U
3	11141-16 5	Aroclor-1232	1 0 U
4	53469-21-9	Aroclor-1242	1 0 U
5	12672-29-6	Aroclor-1248	1 0 U
6	11097-69-1	Aroclor-1254	1.0 U
7	11096-82-5	Aroclor-1260	1.0 U

TCLP PEST - FORM 1

NYTEST ENVIRONMENTAL INC

TCLP PESTICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX	WATER	SAMPLE ID.	44SLG
CONC LEVEL	LOW	LAB SAMPLE ID.	2847313
EXTRACTION DATE.	08/01/96	DIL FACTOR.	1 00
ANALYSIS DATE.	08/15/96	% MOISTURE	NA

CMPD #	CAS Number	TCLP PESTICIDE COMPOUNDS	MG/L
1	57-74 9	Chlordane	0 00050 U
2	70-20-8	Endrin	0.00010 U
3	76-44-8/1024-57-3	Heptachlor & Heptachlor Epoxide	0.00005 U
4	58-89-9	gamma-BHC (Lindane)	0.00005 U
5	72-43-5	Methoxychlor	0.00050 U
6	8001-35-2	Toxaphene	0 00500 U

TCLP HERB - FORM I

NYTEST ENVIRONMENTAL INC

TCLP HERBICIDES ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX	WATER	SAMPLE ID	44SLG
CONC LEVEL	LOW	LAB SAMPLE ID.	2847313
EXTRACTION DATE	07/30/96	DIL FACTOR	1 00
ANALYSIS DATE	08/09/96	% MOISTURE	NA

CMPD #	CAS Number	TCLP HERBICIDE COMPOUNDS	MG/L
1	94-75-7	2 4-D	0 01 U
2	93-71-1	2,4,5-TP (Silvex)	0 001 U

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

44SLG

Lab Name: NYTEST_ENV_INC Contract: 9622627

Lab Code: NYTEST Case No.: 28473 SAS No.: SDG No.: TANK2

Matrix (soil/water): WATER Lab Sample ID: T847313

Level (low/med): LOW Date Received: 07/25/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.0052	U		P
7440-39-3	Barium	0.60			P
7440-43-9	Cadmium	0.00050	U		P
7440-47-3	Chromium	0.0083	U		P
7439-92-1	Lead	0.045			P
7439-97-6	Mercury	0.00032		N	CV
7782-49-2	Selenium	0.0043	U		P
7440-22-4	Silver	0.0045	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

VOLATILE ORGANICS ANALYSIS DATA SHEET

440IL

Lab Name: NYTEST ENV INC Contract: 9622627

Lab Code: NYTEST Case No.: 28473 SAS No.: SDG No.: TANK2

Matrix: (soil/water) WATER Lab Sample ID: 2847312

Sample wt/vol: 1.0 (g/mL) ML Lab File ID: P1745.D

Level: (low/med) LOW Date Received: 07/25/96

% Moisture: not dec. _____ Date Analyzed: 08/02/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) MG/L	Q
75-01-4	Vinyl Chloride	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
56-23-5	Carbon Tetrachloride	0.05	U
79-01-6	Trichloroethene	0.05	U
71-43-2	Benzene	0.04	J
127-18-4	Tetrachloroethene	0.05	U
108-90-7	Chlorobenzene	0.05	U

8-09-1996 9:43AM FROM NEI CLIENT SERVICES 5186253128 P.2

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

440IL

Lab Name: NYTEST ENV INC Contract: 9622627

Lab Code: NYTEST Case No.: 28473 SAS No.: SDG No.: 28473

Matrix: (soil/water) WATER Lab Sample ID: 2847312

Sample wt/vol: 1000 (g/mL) ML Lab File ID: R1964.D

Level: (low/med) LOW Date Received: 07/25/96

% Moisture: not dec. 0 dec. Date Extracted: 07/30/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/03/96

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) MG/L	Q
95-48-7	2-Methylphenol	0.01	
	3+4-Methylphenol	0.01	J
121-14-2	2,4-Dinitrotoluene	0.01	U
118-74-1	Hexachlorobenzene	0.01	U
87-68-3	Hexachlorobutadiene	0.01	U
67-72-1	Hexachloroethane	0.01	U
98-95-3	Nitrobenzene	0.01	U
87-86-5	Pentachlorophenol	0.05	U
110-86-1	Pyridine	0.01	U
95-95-4	2,4,5-Trichlorophenol	0.01	U
88-06-2	2,4,6-Trichlorophenol	0.01	U
106-46-7	1,4-Dichlorobenzene	0.01	U

REPORT OF ANALYSIS

Log in No.: 28473

We find as follows:

Sample Identification	Parameter(s)		
	Ignitability degrees F	Reactivity S ppm	Reactivity Cn ppm
2847301 40OIL	>212	1.0 U	1.0 U
2847302 39OIL	>212	1.0 U	1.0 U
2847303 39SLG	>212	1.0 U	1.0 U
2847304 41OIL	>212	1.0 U	1.0 U
2847305 47OIL	>212	1.0 U	1.0 U
2847306 47SLG	>212	1.0 U	1.0 U
2847307 46OIL	>212	1.0 U	1.0 U
2847308 46SLG	>212	1.0 U	1.0 U
2847309 38OIL	>212	1.0 U	1.0 U
2847310 37OIL	>212	1.0 U	1.0 U
2847311 38SLG	>212	1.0 U	1.0 U
*2847312 44OIL	>212	1.0 U	1.0 U
2847313 44SLG	>212	1.0 U	1.0 U
2847314 37SLG	>212	1.0 U	1.0 U
Method blank	NA	1.0 U	1.0 U

NA = Not Applicable
U = below method blank / method detection limit

TCLP PEST - FORM 1

NYTEST ENVIRONMENTAL INC

TCLP PESTICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX.	WATER	SAMPLE ID:	440IL
CONC LEVEL:	LOW	LAB SAMPLE ID	2847312
EXTRACTION DATE.	08/01/96	DIL FACTOR:	1.00
ANALYSIS DATE.	08/15/96	% MOISTURE.NA	

CMPD #	CAS Number	TCLP PESTICIDE COMPOUNDS	MG/L
1	57-74-9	Chlordane	0 00050 U
2	70-20-8	Endrin	0 00014
3	76-44-8/1024-57-3	Heptachlor & Heptachlor Epoxide	0 00005 U
4	58-89-9	gamma-BHC (Lindane)	0.00005 U
5	72-43 5	Methoxychlor	0 00050 U
6	8001-35-2	Toxaphene	0 00500 U

TCLP HERB - FORM 1

NYTEST ENVIRONMENTAL INC

TCLP HERBICIDES ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX	WATER	SAMPLE ID	14OIL
CONC LEVEL	LOW	LAB SAMPLE ID	2847312
EXTRACTION DATE	07/30/96	DIL FACTOR	1.00
ANALYSIS DATE	08/09/96	% MOISTURE	NA

CMPD #	CAS Number	TCLP HERBICIDE COMPOUNDS	MG/L
1	94-75-7	2,4-D	0 01 U
2	93 71-1	2,4,5-TP (Silvex)	0 001 U

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

440IL

Lab Name: NYTEST_ENV_INC Contract: 9622627

Lab Code: NYTEST Case No.: 28473 SAS No.: SDG No.: TANK2

Matrix (soil/water): WATER Lab Sample ID: T847312

Level (low/med): LOW Date Received: 07/25/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.0052	U		P
7440-39-3	Barium	0.37			P
7440-43-9	Cadmium	0.00050	U		P
7440-47-3	Chromium	0.0083	U		P
7439-92-1	Lead	0.041			P
7439-97-6	Mercury	0.00020	U	N	CV
7782-49-2	Selenium	0.0043	U		P
7440-22-4	Silver	0.0045	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

APPENDIX B
DATA FOR TANK CONTENTS

APPENDIX C
DISPOSAL MANIFESTS/BILL-OF-LADINGS

TANK 44

DOCUMENT NO. 16939

WORK ORDER NO. 098

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.P. INDUSTRIES
EPA ID # N/A

VEHICLE ID # TKB 8X
TRANS. 1 PHONE 1800-OIL-TANK

TRANSPORTER 2
EPA ID #

VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env. Services	Noic Co. Inc
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS One Sawyer Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (oil)	8700	GAL
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Mark Gowan For Noic Inc	For Noic Inc	[illegible]
TRANSPORTER 1	[illegible]	[illegible]	[illegible]
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

TR 44

DOCUMENT NO. 16938

WORK ORDER NO. 097

STRAIGHT BILL OF LADING

TRANSPORTER 1 J. P. NOONAN
EPA ID #

VEHICLE ID # M136 TKB939
TRANS. 1 PHONE 800 OIL TOW

TRANSPORTER 2
EPA ID #

VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY Clean Harbors Env. Services Inc.	SHIPPER NLTC Code 40E
FACILITY EPA ID # MED 980672782	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. NON-Regulated Liquid (oil)	500	GAL
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	[illegible]	[illegible]	[illegible]
TRANSPORTER 1	DON TROUTY	Don Trouty	7/26/96
TRANSPORTER 2			
RECEIVED BY			

4

CHI 190

TK 44

DOCUMENT NO. 16937

WORK ORDER NO. 096

STRAIGHT BILL OF LADING

TRANSPORTER 1 J. P. NOONAN VEHICLE ID # 1015 HP
EPA ID # TRANS. 1 PHONE 1-800-OIL TA

TRANSPORTER 2 VEHICLE ID #
EPA ID # TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env Service Inc.	NETC Code 40C
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS ONE Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. NON-Regulated Liquid (oil)	[illegible]	Gal
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1			
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

TK 44

DOCUMENT NO. 17000

WORK ORDER NO. 095

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.P. NOONAN
EPA ID # N/A
VEHICLE ID # TKB 2
TRANS. 1 PHONE 800-OIL-TAR

TRANSPORTER 2
EPA ID #
VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env. Services Inc	NETC Code 406
FACILITY EPA ID # MED980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS One Simonpietri Drive
CITY Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. NON-Regulated Liquid (oil)	7000	GAL
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER			1/1/9[illegible]
TRANSPORTER 1	Herr Garner	H Yiariam	12/5/9[illegible]
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

TK-44

DOCUMENT NO. 16999

WORK ORDER NO. 094

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.P. NOONAN
EPA ID # N/A

VEHICLE ID # TKB 729
TRANS. 1 PHONE 1-800 OIL TRAN

TRANSPORTER 2
EPA ID #

VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY Clean Harbors Env. Services	SHIPPER NETC Code 40C
FACILITY EPA ID # MED980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Ramery Rd	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (oil)	6500	Gal
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	[illegible]	[illegible]	[illegible]
TRANSPORTER 1	[illegible]	[illegible]	[illegible]
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16998

WORK ORDER NO. 093

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.P NOONAN
EPA ID # N/A
VEHICLE ID #
TRANS. 1 PHONE 1-800-OIL-T

TRANSPORTER 2
EPA ID #
VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY Clean Harbor Env Services Inc	SHIPPER NETC Code 40E
FACILITY EPA ID # MED980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS One Simonpietri Dr
CITY S. Berland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (Oil)	7000	G
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	[illegible]	[illegible]	[illegible]
TRANSPORTER 1	[illegible]	[illegible]	[illegible]
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16997

WORK ORDER NO. 092

STRAIGHT BILL OF LADING

TRANSPORTER 1 HAWK
EPA ID # N/A

VEHICLE ID # 236115
TRANS. 1 PHONE 1-800-OIL-TRA

TRANSPORTER 2
EPA ID #

VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
CLEAN HARBOR ENV. SERVICES	NETC COAST GUARD
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 RUMERY RD	ADDRESS ONE SIMONPIETRI DRIVE
CITY S. PORTLAND STATE ME ZIP 04106	CITY NEWPORT STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. NON-REGULATED LIQUID (OIL)	7000	GAL
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	MARK COWEN		
TRANSPORTER 1			
TRANSPORTER 2			
RECEIVED BY			

190

4

TK 44

DOCUMENT NO. 16996

WORK ORDER NO. 0511

STRAIGHT BILL OF LADING

TRANSPORTER 1 x Hawk Transportation
EPA ID # N/A

VEHICLE ID # x 371075
TRANS. 1 PHONE 1800-OIL TANK

TRANSPORTER 2
EPA ID #

VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor ENV. Services. Inc	NETC Cuac 4UE
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (oil)	x7500	GAL.
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	MARK GOUVEIA FOR THE NAVY	FOR THE NAVY	
TRANSPORTER 1	x [illegible]	x [illegible]	
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16995

WORK ORDER NO. ~~089~~09r TK44

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.P. MORGAN — VEHICLE ID # TKR 9129
EPA ID # N/A — TRANS. 1 PHONE 1-800-OIL-JM

TRANSPORTER 2 — VEHICLE ID #
EPA ID # — TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env. Services Inc	NETC Code 40E
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS Cliff Sullivan Pietrzi Drive
CITY S Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (oil)	7000	GAL
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Mark Gouveia For the Navy	For the Navy	11/1/96
TRANSPORTER 1	Don Frost	Don Frost	11/1/96
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16994

WORK ORDER NO. 089

TK44

STRAIGHT BILL OF LADING

TRANSPORTER 1 J. P. Noonan
EPA ID # N/A

VEHICLE ID # TKB84
TRANS. 1 PHONE 1800-OIL-TAN

TRANSPORTER 2
EPA ID #

VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY			SHIPPER		
CLEAN HARBOR ENV. SERVICES			WETC CODE 40E		
FACILITY EPA ID #			SHIPPER EPA ID #		
MED 980672182			RI 117002424 3		
ADDRESS			ADDRESS		
37 RUMERY RD			ONE SUMMIT DRIVE		
CITY	STATE	ZIP	CITY	STATE	ZIP
S. PORTLAND	ME	04106	WAREHOUSE	RI	02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. NON-REGULATED LIQUID (OIL)	7,000	GAL.
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	MARK A GOUGIA FOR RUMERY	[illegible] FOR RUMERY	
TRANSPORTER 1	[illegible]	[illegible]	[illegible]
TRANSPORTER 2			
RECEIVED BY			

CHI 190

DOCUMENT NO. 16675

WORK ORDER NO. 088
TK44

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.P. NOONAN
EPA ID # N/A

VEHICLE ID # 233
TRANS. 1 PHONE 1800-OILTANK

TRANSPORTER 2
EPA ID #

VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env. Services, Inc	WETC Code 40 E
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery RD.	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. NON-REGULATED LIQUID (oil)	8,000	GAL.
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	MARK A. GOUVEIA FOR THE NAVY	FOR THE NAVY	11/19/96
TRANSPORTER 1	J Parsons		11/19/96
TRANSPORTER 2			
RECEIVED BY			

2

CHI 190

DOCUMENT NO. 16674

WORK ORDER NO. 0874
TK44

STRAIGHT BILL OF LADING

TRANSPORTER 1 Hawk Transportation
EPA ID # N/A
VEHICLE ID #
TRANS. 1 PHONE 1-800-OIL-TA

TRANSPORTER 2
EPA ID #
VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env Services Inc.	NETC Code 40E
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery RD.	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (oil)	6500	Gal
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	[illegible]	[illegible]	11/15/96
TRANSPORTER 1	[illegible]	[illegible]	11-19-96
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16673

WORK ORDER NO. 087
TRUCK 44

STRAIGHT BILL OF LADING

TRANSPORTER 1 HAWK TRANSPORTATION
EPA ID # N/A
VEHICLE ID # 371075
TRANS. 1 PHONE 1800 OILTA

TRANSPORTER 2
EPA ID #
VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbors Env. Services Inc	NETC Code 40E
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery RD	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (UL)	7500	GAL.
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Mark Goodwin for Tom Hawk	[illegible] Facility Rep.	11/18/96
TRANSPORTER 1	Dean L Hawk	[illegible]	11/18/96
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16672

WORK ORDER NO. 086
TANK 44

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.P. NOONAN — VEHICLE ID # TKB2
EPA ID # N/A — TRANS. 1 PHONE 800-OIL-TM

TRANSPORTER 2 — VEHICLE ID #
EPA ID # — TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env. Services, Inc	NETC Code 40 E
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Romney Rd	ADDRESS One Simonpietri Drive
CITY S. Portland, STATE ME ZIP 04106	CITY Lincoln, STATE RI ZIP 02941

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	T T	N/A	A. Non-Regulated Liquid (Oil)	7000	GAL.
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Mark Gouveia Petroleum	[signature]	1/11/96
TRANSPORTER 1	Peter Brown % [illegible]	[signature]	[illegible]
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16670

WORK ORDER NO. 085
TANK 44

STRAIGHT BILL OF LADING

TRANSPORTER 1 J P Noonan — VEHICLE ID #
EPA ID # N/A — TRANS. 1 PHONE 1-800-OIL-TA

TRANSPORTER 2 — VEHICLE ID #
EPA ID # — TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env Services Inc.	NETC Cont 40 E
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS One Simonpietri Drive
CITY S Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (Oil)	7000	GAL
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Mark Gaudet For The Navy	[illegible] For The Navy	11/16/96
TRANSPORTER 1			
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16669

WORK ORDER NO. _____

STRAIGHT BILL OF LADING

TRANSPORTER 1 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 1 PHONE _____

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY			SHIPPER		
FACILITY EPA ID #			SHIPPER EPA ID #		
ADDRESS			ADDRESS		
CITY	STATE	ZIP	CITY	STATE	ZIP

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
			A.		
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION This is to certify that the above named materials are properly classified described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1	PRINT	SIGN	DATE
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

DOCUMENT NO. 16668

WORK ORDER NO. [illegible]

STRAIGHT BILL OF LADING

TRANSPORTER 1 [illegible] VEHICLE ID # [illegible]
EPA ID # [illegible] TRANS. 1 PHONE [illegible]

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY			SHIPPER
[illegible]			[illegible]
FACILITY EPA ID #			SHIPPER EPA ID #
[illegible]			[illegible]
ADDRESS			ADDRESS
[illegible]			[illegible]
CITY	STATE	ZIP	CITY / STATE / ZIP
[illegible]	[illegible]	[illegible]	[illegible]

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
[illegible]	[illegible]	[illegible]	A. [illegible]	[illegible]	[illegible]
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1	PRINT	SIGN	DATE
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

DOCUMENT NO. 16667

WORK ORDER NO. _____

STRAIGHT BILL OF LADING

TRANSPORTER 1 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 1 PHONE _____

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY			SHIPPER		
FACILITY EPA ID #			SHIPPER EPA ID #		
ADDRESS			ADDRESS		
CITY	STATE	ZIP	CITY	STATE	ZIP

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
			A.		
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION This is to certify that the above named materials are properly classified described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER	PRINT	SIGN	DATE
TRANSPORTER	PRINT	SIGN	DATE
RECEIVED BY			

DOCUMENT NO. 16671

WORK ORDER NO. [illegible]

STRAIGHT BILL OF LADING

TRANSPORTER 1 [illegible] VEHICLE ID # [illegible]
EPA ID # [illegible] TRANS. 1 PHONE [illegible]

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY			SHIPPER		
[illegible]			[illegible]		
FACILITY EPA ID #			SHIPPER EPA ID #		
[illegible]			[illegible]		
ADDRESS			ADDRESS		
[illegible]			[illegible]		
CITY	STATE	ZIP	CITY	STATE	ZIP
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	[illegible]	A. [illegible]	[illegible]	[illegible]
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION This is to certify that the above named materials are properly classified described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1	PRINT	SIGN	DATE
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

DOCUMENT NO. 16666

WORK ORDER NO. _____

STRAIGHT BILL OF LADING

TRANSPORTER 1 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 1 PHONE _____

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY			SHIPPER		
FACILITY EPA ID #			SHIPPER EPA ID #		
ADDRESS			ADDRESS		
CITY	STATE	ZIP	CITY	STATE	ZIP

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
			A.		
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION This is to certify that the above named materials are properly classified described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1	PRINT	SIGN	DATE
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

DOCUMENT NO. 16665

WORK ORDER NO. [illegible]

STRAIGHT BILL OF LADING

TRANSPORTER 1 [illegible] VEHICLE ID # [illegible]
EPA ID # [illegible] TRANS. 1 PHONE [illegible]

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
[illegible]	[illegible]
FACILITY EPA ID # [illegible]	SHIPPER EPA ID # [illegible]
ADDRESS [illegible]	ADDRESS [illegible]
CITY [illegible] STATE ZIP	CITY [illegible] STATE [illegible] ZIP [illegible]

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	[illegible]	A. [illegible]	[illegible]	[illegible]
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1	PRINT	SIGN	DATE
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

DOCUMENT NO. 16664

WORK ORDER NO. _____

STRAIGHT BILL OF LADING

TRANSPORTER 1 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 1 PHONE _____

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY			SHIPPER		
FACILITY EPA ID #			SHIPPER EPA ID #		
ADDRESS			ADDRESS		
CITY	STATE	ZIP	CITY	STATE	ZIP

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
			A.		
			B.		
			C.		
			D.		
			E.		
			F.		
			G		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION This is to certify that the above named materials are properly classified described, packaged marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1	PRINT	SIGN	DATE
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

DOCUMENT NO. 16662 WORK ORDER NO. _____

STRAIGHT BILL OF LADING

TRANSPORTER 1 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 1 PHONE _____

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY			SHIPPER		
FACILITY EPA ID #			SHIPPER EPA ID #		
ADDRESS			ADDRESS		
CITY	STATE	ZIP	CITY	STATE	ZIP

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
			A.		
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1	PRINT	SIGN	DATE
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

DOCUMENT NO. 16661

WORK ORDER NO. [illegible]

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.P. NOONAN — VEHICLE ID # [illegible]

EPA ID # N/A — TRANS. 1 PHONE [illegible]

TRANSPORTER 2 [illegible] — VEHICLE ID # [illegible]

EPA ID # [illegible] — TRANS. 2 PHONE [illegible]

DESIGNATED FACILITY	SHIPPER
[illegible]	[illegible]
FACILITY EPA ID # [illegible]	SHIPPER EPA ID # [illegible]
ADDRESS [illegible]	ADDRESS [illegible]
CITY [illegible] STATE [illegible] ZIP [illegible]	CITY [illegible] STATE [illegible] ZIP [illegible]

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	[illegible]	N/A	A. [illegible]	4000	[illegible]
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	[illegible]	[illegible]	
TRANSPORTER 1	[illegible]	[illegible]	
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16660

WORK ORDER NO. 575

STRAIGHT BILL OF LADING

TRANSPORTER 1 [illegible] VEHICLE ID # TK31
EPA ID # N/A TRANS. 1 PHONE [illegible]

TRANSPORTER 2 VEHICLE ID #
EPA ID # TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
[illegible]	[illegible]
FACILITY EPA ID # [illegible]	SHIPPER EPA ID # [illegible]
ADDRESS [illegible]	ADDRESS [illegible]
CITY [illegible] STATE [illegible] ZIP	CITY [illegible] STATE ZIP

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
[illegible]	TP	N/A	A. [illegible]	8000	G
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	[illegible]	[illegible]	[illegible]
TRANSPORTER 1	[illegible]	[illegible]	[illegible]
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16659

WORK ORDER NO. 074

Tank 4

STRAIGHT BILL OF LADING

TRANSPORTER 1 HAUK VEHICLE ID # [illegible]

EPA ID # N/A TRANS. 1 PHONE [illegible]

TRANSPORTER 2 _____ VEHICLE ID # _____

EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
[illegible] Services Inc	NLTC [illegible]
FACILITY EPA ID # MED[illegible]	SHIPPER EPA ID # [illegible]
ADDRESS [illegible]	ADDRESS [illegible]
CITY [illegible] STATE [illegible] ZIP [illegible]	CITY [illegible] STATE [illegible] ZIP [illegible]

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. [illegible]	[illegible]	
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER PRINT [illegible]	SIGN [illegible]	DATE [illegible]
TRANSPORTER 1 PRINT	SIGN	DATE
TRANSPORTER 2 PRINT	SIGN	DATE
RECEIVED BY PRINT	SIGN	DATE

CHI 190

4

DOCUMENT NO. 16658

WORK ORDER NO. 072

STRAIGHT BILL OF LADING

TRANSPORTER 1 HAWK TRANSPORTATION — VEHICLE ID # 382-113344
EPA ID # N/A — TRANS. 1 PHONE

TRANSPORTER 2 — VEHICLE ID #
EPA ID # — TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Upper Harbors Env Services Inc	NETC Cold HOL
FACILITY EPA ID # MED981267100	SHIPPER EPA ID # NC 1170 [illegible]
ADDRESS 37 Fleming Rd	ADDRESS [illegible] Transportation Drive
CITY [illegible] STATE ME ZIP 04102	CITY [illegible] STATE NC ZIP [illegible]

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	T1	[illegible]	A. Non Regulated Liquid [illegible]	6500	GAL
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Mark Gaudio For the Hawk	[illegible] For Hawk	[illegible]
TRANSPORTER 1	[illegible]	[illegible]	
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16663

WORK ORDER NO. 072
TANK 44

STRAIGHT BILL OF LADING

TRANSPORTER 1 Hauk Transportation Services
EPA ID # N/A
VEHICLE ID # 236115
TRANS. 1 PHONE 1-800-OIL-[illegible]

TRANSPORTER 2
EPA ID #
VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env. Services Inc	Metal Cone 40 E
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (Oil)		
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1			
TRANSPORTER 2			
RECEIVED BY			

4

CHI 190

DOCUMENT NO. 16656

WORK ORDER NO. 071
Tank 41

STRAIGHT BILL OF LADING

TRANSPORTER 1 _____ VEHICLE ID # 071
EPA ID # N/A TRANS. 1 PHONE 1-800-[illegible]

TRANSPORTER 2 [illegible] VEHICLE ID # [illegible]
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
Clean Harbors Env Services Inc.	NETC Sod. NDE
FACILITY EPA ID # MEL 9E067[illegible]	SHIPPER EPA ID # RI 1170[illegible]
ADDRESS 57 Kenney Rd.	ADDRESS [illegible] Dr
CITY [illegible] STATE ME ZIP [illegible]	CITY Newport STATE RI ZIP [illegible]

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	T[illegible]	N/A	A. Non-regulated liquids (oil)	2650	gal
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	[illegible]	[illegible]	[illegible]
TRANSPORTER 1			
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16655

WORK ORDER NO. 070
TANK 44

STRAIGHT BILL OF LADING

TRANSPORTER 1 J.T. NOCHSIAN
EPA ID # N/A
VEHICLE ID # TKC 3Y
TRANS. 1 PHONE 1-800-01[illegible]

TRANSPORTER 2
EPA ID #
VEHICLE ID #
TRANS. 2 PHONE

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env. Services, Inc	NETC Code 40E
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery Rd	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. NON REGULATED LIQUID (OIL)	2000	GAL
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER			
TRANSPORTER 1			
TRANSPORTER 2			
RECEIVED BY			

CHI 190

4

DOCUMENT NO. 16654

WORK ORDER NO. 069
TK44

STRAIGHT BILL OF LADING

TRANSPORTER 1 JP Noonan — VEHICLE ID # TKP 110
EPA ID # N/A — TRANS. 1 PHONE 1-800-OIL-T

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
Clean Harbor Env. Services Inc	NETC Code 4CE
FACILITY EPA ID # MED 980672182	SHIPPER EPA ID # RI 1170024243
ADDRESS 37 Rumery RD	ADDRESS One Simonpietri Drive
CITY S. Portland STATE ME ZIP 04106	CITY Newport STATE RI ZIP 02841

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT	N/A	A. Non-Regulated Liquid (Oil)	8000	Gal
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

SPECIAL HANDLING INSTRUCTIONS

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	[illegible]	[illegible]	11/[illegible]
TRANSPORTER 1	PRINT	SIGN	DATE
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

CHI 190

4

CleanHarbors

STRAIGHT BILL OF LADING

Check One:
- [X] Non-Hazardous Material
- [ ] Hazardous Material

DATE 11/15/96	VEHICLE NUMBER: TK31
FROM: Shipper NETC CONE 40E	TO: Consignee Clean Harbor Env. Services
Street ONE Simonpietri Drive	Street 37 Rumery RD
City Newport State RI	City S. Portland State ME
Zip Code 02841 US EPA ID Number RI1170024243	Zip Code 04106

Name of Carrier: JP Noonan

US DOT Description: (Include Proper Shipping Name, Hazard Class, and ID Number)

NON-REGULATED LIQUID (OIL)

Total Quantity	Unit Wt/Vol	EMERGENCY NUMBER:
118000	Gal.	1-800-OIL-TANK

WASTE OIL ANALYSIS: (ACTUAL) LAB #

ARSENIC	IND PPM.	LEAD	IND PPM.	BTU's/LB.	
CADMIUM	IND PPM.	PCB'S	IND PPM.	BTU's/GAL.	
CHROMIUM	IND PPM.	TOTAL HALOGENS	300 PPM.	FLASH POINT	>200 °F
N.D. = NOT DETECTED				SULFUR	

WASTE OIL SPECIFICATION: (LIMITS)

ARSENIC	5.0	PPM. MAX.	LEAD	100	PPM. MAX.		
CADMIUM	2.0	PPM. MAX.	PCB'S	N.D.	PPM. MAX.		
CHROMIUM	10.0	PPM. MAX.	TOTAL HALOGENS	1,000	PPM. MAX	FLASH POINT	>100 °F

Shipper's Signature	Consignee Signature	Transporter's Signature

COMMENTS.

[illegible] FROM TANK 44

CHI 179 A

COPY 3

CleanHarbors

STRAIGHT BILL OF LADING

Check One:
- [X] Non-Hazardous Material
- [ ] Hazardous Material

DATE 11 / 14 / 96	VEHICLE NUMBER: 8072 - 237128
FROM: Shipper NETC CODE 40E	TO: Consignee Clean Harbor Env. Services, Inc
Street One Simonpietri Drive	Street 37 Rumery Rd
City Newport State RI	City S. Portland State ME
Zip Code 02841 / US EPA ID Number K I 1 1 7 0 0 2 4 2 4 3	Zip Code 04106

Name of Carrier: HAWK

US DOT Description: (Include Proper Shipping Name, Hazard Class, and ID Number)

NON-REGULATED LIQUID (O.C)

Total Quantity	Unit Wt/Vol	EMERGENCY NUMBER:
7999 11	Gal.	1-800-OIL-TANK

WASTE OIL ANALYSIS: (ACTUAL) LAB #

ARSENIC	N.D. PPM.	LEAD	N.D. PPM.	BTU's/LB.	
CADMIUM	N.D. PPM.	PCB'S	N.D. PPM.	BTU's/GAL.	
CHROMIUM	N.D. PPM.	TOTAL HALOGENS	300 PPM.	FLASH POINT	>200 °F
N.D. = NOT DETECTED				SULFUR	

WASTE OIL SPECIFICATION: (LIMITS)

ARSENIC	5.0	PPM. MAX.	LEAD	100	PPM. MAX.
CADMIUM	2.0	PPM. MAX.	PCB'S	N.D.	PPM. MAX.
CHROMIUM	10.0	PPM. MAX.	TOTAL HALOGENS	1,000	PPM. MAX

FLASH POINT >100 °F

Shipper's Signature	Consignee Signature	Transporter's Signature

COMMENTS

CHI 179 A

COPY 3

CleanHarbors

STRAIGHT BILL OF LADING

Check One:
- [X] Non-Hazardous Material
- [ ] Hazardous Material

066

DATE 11/15/96	VEHICLE NUMBER: 8669
FROM: Shipper NETC Code 40E	TO: Consignee Clean Harbor ENV. SERVICES, INC
Street ONE Simonpietri Drive	Street 37 Rumery RD.
City NEWPORT State RI	City S. PORTLAND State ME
Zip Code 02841 / US EPA ID Number RI1170024243	Zip Code 04106

Name of Carrier: HAWK Transportation

US DOT Description: (Include Proper Shipping Name, Hazard Class, and ID Number)

NON-REGULATED LIQUID (oil)

Total Quantity	Unit Wt/Vol	EMERGENCY NUMBER:
16610	Gal.	1-800-OIL-TANK

WASTE OIL ANALYSIS: (ACTUAL) LAB # _____

ARSENIC _____ PPM. LEAD _____ PPM. BTU's/LB. _____
CADMIUM _____ PPM. PCB'S _____ PPM. BTU's/GAL. _____
CHROMIUM _____ PPM. TOTAL HALOGENS _____ PPM. FLASH POINT _____ °F
N.D. = NOT DETECTED SULFUR _____

WASTE OIL SPECIFICATION: (LIMITS)

ARSENIC	5.0	PPM. MAX.	LEAD	100	PPM. MAX.
CADMIUM	2.0	PPM. MAX.	PCB'S	N.D.	PPM. MAX.
CHROMIUM	10.0	PPM. MAX.	TOTAL HALOGENS	1,000	PPM. MAX

FLASH POINT >100 °F

Shipper's Signature	Consignee Signature	Transporter's Signature
[illegible]		[illegible]

COMMENTS.

From Tank # 44

CHI 179 A

COPY 3

CleanHarbors
STRAIGHT BILL OF LADING

Check One:
- [x] Non-Hazardous Material
- [ ] Hazardous Material

065

DATE 11 / 15 / 96	VEHICLE NUMBER: 282-113344
FROM: Shipper NEIC Code 40E	TO: Consignee Clean Harbor ENV. Services Inc
Street ONE Simonpietri Drive	Street 37 Rumery RD.
City Newport State RI	City S. Portland State ME
Zip Code 02841 / US EPA ID Number RI1117002424 3	Zip Code 04106
Name of Carrier: HAWK Transportation	

US DOT Description: (Include Proper Shipping Name, Hazard Class, and ID Number)

NON-REGULATED LIQUID (OIL)

Total Quantity	Unit Wt/Vol	EMERGENCY NUMBER:
1600 EST.	Gal.	1-800-OIL-TANK

WASTE OIL ANALYSIS: (ACTUAL) LAB #

ARSENIC	PPM.	LEAD	PPM.	BTU's/LB.	
CADMIUM	PPM.	PCB'S	PPM.	BTU's/GAL.	
CHROMIUM	PPM.	TOTAL HALOGENS	PPM.	FLASH POINT	'F
N.D. = NOT DETECTED				SULFUR	

WASTE OIL SPECIFICATION: (LIMITS)

ARSENIC	5.0	PPM. MAX.	LEAD	100	PPM. MAX.		
CADMIUM	2.0	PPM. MAX.	PCB'S	N.D.	PPM. MAX.		
CHROMIUM	10.0	PPM. MAX.	TOTAL HALOGENS	1,000	PPM. MAX	FLASH POINT	>100 'F

Shipper's Signature	Consignee Signature	Transporter's Signature

COMMENTS.

Oil from Tank = 44

CHI 179 A

COPY 3

CleanHarbors

STRAIGHT BILL OF LADING

Check One:
[X] Non-Hazardous Material
[ ] Hazardous Material

064

DATE 11 / 14 / 96	VEHICLE NUMBER: 311 / 236115
FROM: Shipper NETC Code 40 E	TO: Consignee Clean Harbor Env. Services Inc
Street ONE Simonpietri DRIVE	Street 37 Rumery RD
City NEWPORT State RI	City S. Portland State ME
Zip Code 02841 / US EPA ID Number RI 1 1 7 0 0 2 4 2 4 3	Zip Code 04106
Name of Carrier: HAWK TRANS.	

US DOT Description: (Include Proper Shipping Name, Hazard Class, and ID Number)

NON - REGULATED LIQUID (OIL)

Total Quantity	Unit Wt/Vol	EMERGENCY NUMBER:
1 1 7 0 0 0	Gal.	1-800-OIL-TANK

WASTE OIL ANALYSIS: (ACTUAL) LAB #_____

ARSENIC _____ PPM. LEAD _____ PPM. BTU's/LB. _____
CADMIUM _____ PPM. PCB'S _____ PPM. BTU's/GAL. _____
CHROMIUM _____ PPM. TOTAL HALOGENS _____ PPM. FLASH POINT _____ °F
N.D. = NOT DETECTED SULFUR _____

WASTE OIL SPECIFICATION: (LIMITS)

ARSENIC	5.0	PPM. MAX.	LEAD	100	PPM. MAX.	
CADMIUM	2.0	PPM. MAX.	PCB'S	N.D.	PPM. MAX.	
CHROMIUM	10.0	PPM. MAX.	TOTAL HALOGENS	1,000	PPM. MAX	FLASH POINT >100 °F

Shipper's Signature	Consignee Signature	Transporter's Signature

COMMENTS

CHI 179 A COPY 3

CleanHarbors
STRAIGHT BILL OF LADING

Check One:
- [X] Non-Hazardous Material
- [ ] Hazardous Material

063

DATE 11/14/96	VEHICLE NUMBER: TKB 2
FROM: Shipper NETC Code 40E	TO: Consignee Clean Harbor Env. Services Inc
Street ONE Simonpietri Drive	Street 37 Rumery RD
City Newport State RI	City S. Portland State ME
Zip Code 02841 / US EPA ID Number RI1170024243	Zip Code 04106
Name of Carrier: J P. Noonan	

US DOT Description: (Include Proper Shipping Name, Hazard Class, and ID Number)

NON-REGULATED LIQUID (OIL)

Total Quantity	Unit Wt/Vol	EMERGENCY NUMBER:
1170000	Gal.	1-800-OIL-TANK

WASTE OIL ANALYSIS: (ACTUAL)

LAB #

ARSENIC ND PPM. LEAD ND PPM. BTU's/LB.
CADMIUM ND PPM. PCB'S ND PPM. BTU's/GAL.
CHROMIUM ND PPM. TOTAL HALOGENS 300 PPM. FLASH POINT 200 °F
N.D. = NOT DETECTED SULFUR

WASTE OIL SPECIFICATION: (LIMITS)

ARSENIC	5.0	PPM. MAX.	LEAD	100	PPM. MAX.
CADMIUM	2.0	PPM. MAX.	PCB'S	N.D.	PPM. MAX.
CHROMIUM	10.0	PPM. MAX.	TOTAL HALOGENS	1,000	PPM. MAX

FLASH POINT >100 °F

Shipper's Signature	Consignee Signature	Transporter's Signature

COMMENTS

CHI 179 A

COPY 3

CleanHarbors

STRAIGHT BILL OF LADING

Check One:
- [X] Non-Hazardous Material
- [ ] Hazardous Material

062

DATE 11 / 19 / 96	VEHICLE NUMBER: 1J / HP
FROM: Shipper NETC Code 40 E	TO: Consignee Clean Harbor Services Inc
Street ONE Simonpietri Drive	Street 37 Rumery RD
City Newport State RI	City S. Portland State ME
Zip Code 02841 / US EPA ID Number RI1117002424 3	Zip Code 04106
Name of Carrier: J.O. Tucker	

US DOT Description: (Include Proper Shipping Name, Hazard Class, and ID Number)

NON-REGULATED LIQUID (oil)

Total Quantity	Unit Wt/Vol	EMERGENCY NUMBER:
1 Tank	8000 Gal.	1-800-OIL-TANK

WASTE OIL ANALYSIS: (ACTUAL) LAB #

ARSENIC	ND PPM.	LEAD	ND PPM.	BTU's/LB.	
CADMIUM	ND PPM.	PCB'S	ND PPM.	BTU's/GAL.	
CHROMIUM	ND PPM.	TOTAL HALOGENS	300 PPM.	FLASH POINT	>200 °F
N.D. = NOT DETECTED				SULFUR	

WASTE OIL SPECIFICATION: (LIMITS)

ARSENIC	5.0	PPM. MAX.	LEAD	100	PPM. MAX.		
CADMIUM	2.0	PPM. MAX.	PCB'S	N.D.	PPM. MAX.		
CHROMIUM	10.0	PPM. MAX.	TOTAL HALOGENS	1,000	PPM. MAX	FLASH POINT	>100 °F

Shipper's Signature	Consignee Signature	Transporter's Signature
[illegible] For Tucker		[illegible]

COMMENTS.

Oil from Tank 44

CHI 179 A

COPY 3

CleanHarbors

STRAIGHT BILL OF LADING

Check One:
- [X] Non-Hazardous Material
- [ ] Hazardous Material

061

DATE 11/14/96	VEHICLE NUMBER: TKB 16
FROM: Shipper NETC CODE 40E	TO: Consignee Clean Harbor Env. Services Inc.
Street ONE Simonpietri Drive	Street 37 Rumery Rd
City Newport State RI	City S. Portland State ME
Zip Code 0284 / US EPA ID Number RI1170024243	Zip Code 04106
Name of Carrier: J.P. Morgan	

US DOT Description: (Include Proper Shipping Name, Hazard Class, and ID Number)

NON-REGULATED LIQUID (oil)

Total Quantity	Unit Wt/Vol	EMERGENCY NUMBER:
118000	Gal.	1-800-OIL-TANK

WASTE OIL ANALYSIS: (ACTUAL) LAB #

ARSENIC	.1D PPM.	LEAD	.1D PPM.	BTU's/LB.	
CADMIUM	.1D PPM.	PCB'S	.1D PPM.	BTU's/GAL.	
CHROMIUM	.1D PPM.	TOTAL HALOGENS	300 PPM.	FLASH POINT	>200 °F
N.D. = NOT DETECTED				SULFUR	

WASTE OIL SPECIFICATION: (LIMITS)

ARSENIC	5.0	PPM. MAX.	LEAD	100	PPM. MAX.		
CADMIUM	2.0	PPM. MAX.	PCB'S	N.D.	PPM. MAX.		
CHROMIUM	10.0	PPM. MAX.	TOTAL HALOGENS	1,000	PPM. MAX	FLASH POINT	>100 °F

Shipper's Signature	Consignee Signature	Transporter's Signature

COMMENTS.

Oil from Tank 44

CHI 179 A

COPY 3

APPENDIX D
DEGREASER/VENDOR INFORMATION

CHEMICALS INC.
HOUSTON, TEXAS
(713) 734-1656

"Maintenance Chemicals For Your Environment"

HAZARD RATING
4 = EXTREME
3 = HIGH
2 = MODERATE
1 = SLIGHT
0 = INSIGNIFICANT
* = CHRONIC HEALTH HAZARD - SEE SECTION V

Fire 0 | Toxicity 1 | Reactivity 1 | Special

MATERIAL SAFETY DATA SHEET

(Essentially Similar to Form OSHA-20)

SECTION I

REVISED: 06-15-87

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
N/A	ENVIRO 2000S

CHEMICAL FAMILY	FORMULA
Detergent	Proprietary

SECTION II — HAZARDOUS INGREDIENTS

MATERIAL	CAS #	%	TLV (units)
Sodium Hydroxide	1310-73-2		2 mg/m^3 200 mg/m^3 IDLH

SECTION III — PHYSICAL DATA

BOILING POINT (°F)	216°F	SPECIFIC GRAVITY (H_2O = 1)	1.04
VAPOR PRESSURE (mm Hg)	NIL	PERCENT VOLATILE BY VOLUME (%)	94
VAPOR DENSITY (AIR = 1)	NOT EST.	EVAPORATION RATE (_____ = 1)	1
SOLUBILITY IN WATER	COMPLETE	pH	12.0

APPEARANCE AND ODOR: Clear red liquid / minimal odor.

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	FLAMMABLE LIMITS	Lel	Uel
Boils without flashing.		N/A	N/A

EXTINGUISHING MEDIA
Use carbon dioxide, alcohol foam, dry chemicals in areas where chemicals stored.

SPECIAL FIRE FIGHTING PROCEDURES
Aqueous solutions of product are alkaline.

UNUSUAL FIRE AND EXPLOSION HAZARDS
None.

SECTION V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
See Section II.

EFFECTS OF OVEREXPOSURE
Inhalation: Airborne concentrations of mist or spray may cause irritation of upper respiratory tract, nose and throat, hemolysis, hemoglobinuria.
Skin: Dermatitis may result from repeated or prolonged exposure due to defatting of tissue.
Eye: Product is destructive to eye tissue. May cause severe irritation.
Ingestion: Product can cause irritation of mouth, throat, esophagus and stomach.

EMERGENCY AND FIRST AID PROCEDURES
Eyes: Irrigate immediately with running water for at least 15 minutes. Seek medical attention if irritation persists. Skin: Flush with soap and water immediately. Remove impervious clothing immediately when skin is wet or contaminated. Seek medical attention if irritation persists. Inhalation: If person exposed to large amounts of mist or vapor, move the exposed person to fresh air at once and perform artificial respiration. Ingestion: If ingested, seek medical attention immediately. Give large quantities of water.

DO NOT INDUCE VOMITING

FOR MEDICAL EMERGENCY CALL COLLECT (713) 734-1656

(continued on reverse side)

SECTION VI — REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATABILITY (Materials to avoid)

Acids, organic halogens, reactive metals such as zinc, tin, aluminum, leather and wool.

HAZARDOUS DECOMPOSITION PRODUCTS

None.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Small Spill: Mop or wipe up or absorb on sawdust or clay and dispose of in accordance with RCRA Regulations. Flush any residue with water.

Large Spill: Wear goggles, coveralls, and impervious gloves and boots. Add dry absorbant shovel, or sweep up, and place in a D.O.T. approved container and seal. Flush any residue with water.

WASTE DISPOSAL METHOD

Treat and dispose of in accordance with regulations under the RCRA as administered by the USEPA or other appropriate state agency.

SECTION VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Use NIOSH approved respirator for mists and vapors.

VENTILATION	LOCAL EXHAUST	SPECIAL
	To maintain below TLV guidelines.	
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES	EYE PROTECTION
Rubber or Neoprene	Goggles or Safety Glasses

OTHER PROTECTIVE EQUIPMENT

Impervious boots, and coveralls, to minimize skin contact.

SECTION IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in cool dry place in original sealed container.
Avoid temperatures above 140°F. Avoid freezing conditions.

OTHER PRECAUTIONS

Read all directions and cautions on label before use.
Keep out of reach of children.

FOR MEDICAL EMERGENCY CALL COLLECT (713) 734-1656

All statements, information and data given are believed to be accurate and reliable as of the data hereof, but are presented without guaranty warranty or responsibility of any kind, expressed or implied on our part. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other or additional considerations. Information regarding the proper course of treatment in the event of an accident or misuse of this product is properly the domain of the attending physician.

JANITECH CHEMICALS, INC.
HOUSTON, TEXAS
(713) 734-1656

"Maintenance Chemicals For Your Environment"

HAZARD RATING
4 = EXTREME
3 = HIGH
2 = MODERATE
1 = SLIGHT
0 = INSIGNIFICANT
* = CHRONIC HEALTH HAZARD - SEE SECTION V

Fire 0 | Toxicity 1 | Reactivity 1 | Special

MATERIAL SAFETY DATA SHEET

(Essentially Similar to Form OSHA-20)

SECTION I

REVISED: 06-15-87

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
N/A	ENVIRO 2000S

CHEMICAL FAMILY	FORMULA
Detergent	Proprietary

SECTION II — HAZARDOUS INGREDIENTS

MATERIAL	CAS #	%	TLV (units)
Sodium Hydroxide	1310-73-2		2 mg/m^3 200 mg/m^3 IDLH

SECTION III — PHYSICAL DATA

BOILING POINT (°F)	216°F	SPECIFIC GRAVITY (H_2O = 1)	1.04
VAPOR PRESSURE (mm Hg)	NIL	PERCENT, VOLATILE BY VOLUME (%)	94
VAPOR DENSITY (AIR = 1)	NOT EST.	EVAPORATION RATE (_____ = 1)	1
SOLUBILITY IN WATER	COMPLETE	pH	12.0

APPEARANCE AND ODOR Clear red liquid / minimal odor.

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	FLAMMABLE LIMITS	Lel	Uel
Boils without flashing.		N/A	N/A

EXTINGUISHING MEDIA
Use carbon dioxide, alcohol foam, dry chemicals in areas where chemicals stored.

SPECIAL FIRE FIGHTING PROCEDURES
Aqueous solutions of product are alkaline.

UNUSUAL FIRE AND EXPLOSION HAZARDS
None.

SECTION V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II.

EFFECTS OF OVEREXPOSURE
Inhalation: Airborne concentrations of mist or spray may cause irritation of upper respiratory tract, nose and throat, hemolysis, hemoglobinuria.
Skin: Dermatitis may result from repeated or prolonged exposure due to defatting of tissue
Eye: Product is destructive to eye tissue. May cause severe irritation.
Ingestion: Product can cause irritation of mouth, throat, esophagus and stomach.

EMERGENCY AND FIRST AID PROCEDURES
Eyes: Irrigate immediately with running water for at least 15 minutes. Seek medical attention if irritation persists. Skin: Flush with soap and water immediately. Remove impervious clothing immediately when skin is wet or contaminated. Seek medical attention if irritation persists. Inhalation: If person exposed to large amounts of mist or vapor, move the exposed person to fresh air at once and perform artificial respiration. Ingestion: If ingested, seek medical attention immediately. Give large quantities of wate

~~DO NOT INDUCE VOMITING~~

FOR MEDICAL EMERGENCY CALL COLLECT (713) 734-1656

(continued on reverse side)

SECTION VI — REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATABILITY (Materials to avoid)

Acids, organic halogens, reactive metals such as zinc, tin, aluminum, leather and wool.

HAZARDOUS DECOMPOSITION PRODUCTS

None.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Small Spill: Mop or wipe up or absorb on sawdust or clay and dispose of in accordance with RCRA Regulations. Flush any residue with water.

Large Spill: Wear goggles, coveralls, and impervious gloves and boots. Add dry absorbant shovel, or sweep up, and place in a D.O.T. approved container and seal. Flush any residue with water.

WASTE DISPOSAL METHOD

Treat and dispose of in accordance with regulations under the RCRA as administered by the USEPA or other appropriate state agency.

SECTION VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Use NIOSH approved respirator for mists and vapors.

VENTILATION	LOCAL EXHAUST	SPECIAL
	To maintain below TLV guidelines.	
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES	EYE PROTECTION
Rubber or Neoprene	Goggles or Safety Glasses

OTHER PROTECTIVE EQUIPMENT

Impervious boots, and coveralls, to minimize skin contact.

SECTION IX — SPECIAL PRECAUTIONS

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Store in cool dry place in original sealed container.
Avoid temperatures above 140°F. Avoid freezing conditions.

OTHER PRECAUTIONS

Read all directions and cautions on label before use.
Keep out f reach of children.

FOR MEDICAL EMERGENCY CALL COLLECT (713) 734-1656

l statements, information and data given are believed to be accurate and reliable as of the data hereof, but are presented without guaranty warranty or responsibility of any kind, xpressed or implied on our part It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other or additional considerations. ormation regarding the proper course of treatment in the event of an accident or misuse of this product is properly the domain of the attending physician

Material Safety Data Sheet

QUICK IDENTIFIER (In Plant Common Name)

SW 1000

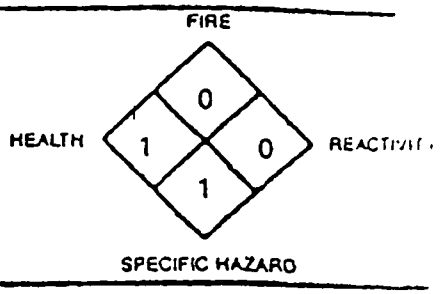
Manufacturer's Name (201) 437-7775
Heritage Labs, Inc.

Address P.O. Box 4141
Bayonne, NJ 07002

Signature of Person Responsible for Preparation
10/10/89 Donald J. Adone

HAZARD RATING
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

See Section (5)



SECTION 1 - IDENTITY

Common Name (used on label) (Trade Name & Synonyms) SW 1000

Chemical Name n.a.

Formula Proprietary

SECTION 2 - HAZARDOUS INGREDIENTS

Principal Hazardous Component(s) (chemical & common name(s))	CAS #	%	ACGIH TLV	Other Limits Recommended
Sodium metasilicate	6834-93-0	<5%	n.a.	
Isopropanol	67-63-0	<5%	(TWA 400 ppm, STEL 500 ppm)	
Sodium hydroxide	1310-73-2	<1%	(C 2 mg/m^3)	

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS (Fire & Explosion Data)

Boiling Point 213°F

Specific Gravity (H_2O = 1) 1.036

Vapor Pressure (mm Hg) n.a.

Percent Volatile by Volume (%) 0

Vapor Density (Air = 1) n.a.

Evaporation Rate (water = 1) <1%

Solubility in Water completely

Reactivity in Water none

Appearance and Odor clear liquid / non objectionable odor

Flash Point none

Flammable Limits in Air % by Volume Lower n.a. Upper n.a.

Extinguisher Media none required

Auto-Ignition Temperature none

Special Fire Fighting Procedures none

Unusual Fire and Explosion Hazards none

SECTION 4 - REACTIVITY DATA

	Unstable		Conditions to Avoid none
	Stable	X	

Incompatability (Materials to Avoid) Only those materials incompatible with water.

Hazardous Decomposition or Byproducts n.a.

Hazardous Polymerization	May Occur		Conditions to Avoid none
	Will Not Occur	X	

SECTION 5 - HEALTH HAZARDS

Route(s) of Entry:	Inhalation?	unlikely	Skin?	likely	Ingestion? unlikely
Health Hazards (Acute and Chronic)		Skin irritation may develop if repeated exposure occurs or if it is used for long periods of time. Avoid eye contact.			
Carcinogenicity:		None known			
Signs and Symptoms of Exposure		None known			
Emergency and First Aid Procedures		n.a.			
1. Inhalation		Move to more adequate ventilation.			
2. Eyes		Rinse thoroughly with water, if irritation develops - see physic			
3. Skin		Same as above.			
4. Ingestion		Drink juices, milk or water - consult a physician.			

SECTION 6 - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type)		n.a. provide proper ventilation.			
Ventilation	Local Exhaust	Mechanical (General)	Special	Other	Should be adaquat-
Protective Gloves	water resistant gloves.	Eye Protection	Goggles or safety glasses.		
Other Protective Clothing or Equipment					

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage	Store in temperatures ranging from 30°F to 110°F / 0°-43
Other Precautions	None
Steps to be Taken in Case Material is Released or Spilled	Hose down with water.
Waste Disposal Methods	Biodegradable. Refer to applicable regulations. Special dispo: may not be required.

The information on this data sheet represents our current data and best opinion as t the proper use in the handling of this product under normal conditions. The informa and recommendations are offered for the user's consideration and examination, and i the user's responsibility to satisfy itself that they are suitable and complete for particular use. Any use of this product which is not in conformance with this data or which involves using the product in combination with any other product or any ot process is the responsibility of the user.

APPENDIX E
MANIFESTS (DEBRIS DISPOSAL)

One Winter Street Boston, Massachusetts 02108

CAN# CMIU25-01

Please print or type (Form designed for use on elite (12-pitch) typewriter)

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: RI1170024243

Manifest Document No: 50395

2 Page 1 of 1

Information in the shaded areas is not required by Federal law

A. State Manifest Document Number: MA J 577237

B. State Gen ID: TANK FARM #4 Same

C. State Trans. ID: MA28611

D Transporter's Phone: (617) 849-1800

E. State Trans. ID:

F Transporter's Phone ( )

G. State Facility's ID: NOT REQUIRED

H. Facility's Phone: (617) 849-1807

3 Generator's Name and Mailing Address:
NETC, Code 40E
Attn: Raymond Roberge
1 Simonpietri Drive
Newport, RI 02841

4 Generator's Phone: 401-841-3735

5 Transporter 1 Company Name: Clean Harbors Env.Services,Inc.

6. US EPA ID Number: MAD039322250

7 Transporter 2 Company Name:

8. US EPA ID Number:

9 Designated Facility Name and Site Address:
Clean Harbors of Braintree, Inc.
385 Quincy Avenue
Braintree, MA 02184

10. US EPA ID Number: MAD053452637

11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers NO	Type	13. Total Quantity	14 Unit Wt/Vol	Waste No.
a. NON D.O.T. REGULATED OILY SOLIDS, NONE, N/A	001	CM	0025	Y	MA01
b					
c					
d					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code)

a. (S)MA Regulated

b.

c.

d.

K. Handling Codes for Wastes Listed Above

a.

b.

c.

d.

11a Special Handling Instructions and Additional Information CHO41952

CAN#015

11b

11c

11d Emergency Contact: 1-800-645-8265 (Clean Harbors)

SB 3627

WO:

16 GENERATOR'S CERTIFICATION I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: Raymond Roberge

Signature:

Date: Month 11 Day 05 Year 96

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: ROGER REHS

Signature:

Date: Month 11 Day 05 Year 96

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date: Month Day Year

FACILITY

19 Discrepancy Indication Space

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

Printed/Typed Name:

Signature:

Date: Month Day Year

In case of emergency or spill, immediately c ne National Response Center (800) 424-8802

Form Approved OMB No 2050-0039 Expires 9-30-96
EPA Form 8700-22 (Rev 9-88) Previous editions are obsolete

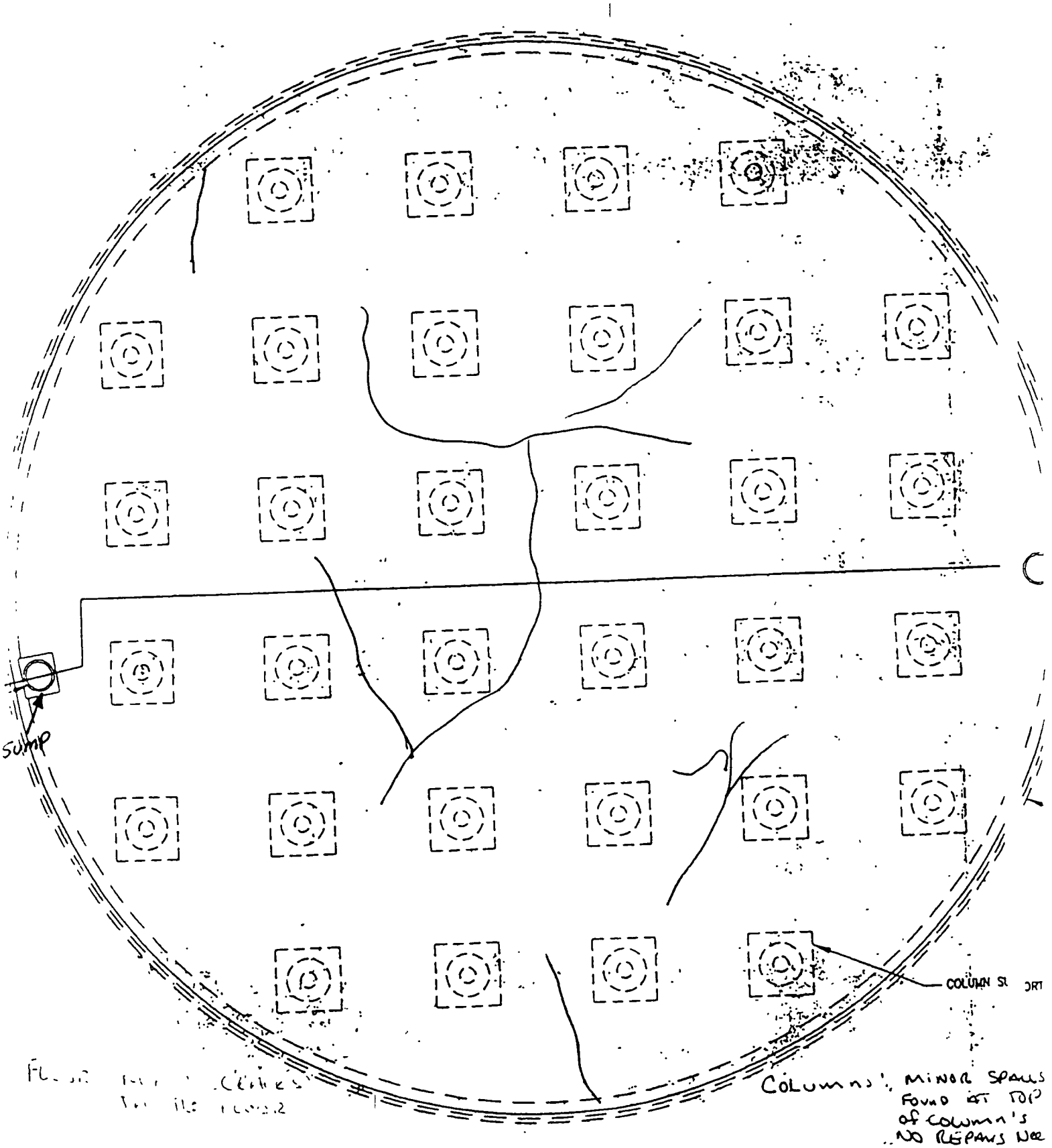
Clean Harbors has appropriate permits for and will accept the waste the generator is shippin

COPY>1: FACILITY MAILS TO DESTINATION STATE

APPENDIX F
STRUCTURAL INSPECTION

TANK 44

NOTE: TANK WAS CLEANED BUT NOT DRY



FLOOR [illegible] CRACKS [illegible]

COLUMNS: MINOR SPALLS FOUND AT TOP OF COLUMN'S NO REPAIRS NEE

WALLS: ARE CLEAN AND APPEARED TO BE IN GOOD CONDITION

PLAN VIEW

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
UNDERGROUND STORAGE TANK SECTION
291 Promenade Street
Providence, Rhode Island 02908
(401) 277-2797

UST ID 03644

LUST ID LS 2712

CLOSURE INSPECTION SHEET
FOR UNDERGROUND STORAGE FACILITIES

On the 11th of December 1996 (date), I, Patrick Hogan (inspector)

witnessed the permanent closure of the following underground storage tanks owned/operated by

Naval Education and Training Center/ Tank Farm 4
(owner/operator)

and located at

Portsmouth
(address)

TANK ID	VOLUME	STORED MATERIAL	TANK STATUS (F = Filled / R = Removed)
44	2.5 MG	#6 fuel oil	F*
46	2.5 MG	#6 fuel oil	F*

* tank to be demolished

Signature: Patrick Hogan, F. Daniel Russell, Paul Kulpa

Patrick Hogan — Sanitary Engineer
F. Daniel Russell — Environmental Scientist
Paul Kulpa — Jr. Sanitary Engineer

Title: Underground Storage Tank Section/Leaking Underground Storage Tank Section
Department of Environmental Management

A closure assessment must be submitted to the Division of Site Remediation, Leaking Underground Storage Tank Section within 30 working days.

NOTE: This is not a document to approv or certify that tanks are safe or clean to transport.

APPENDIX G
BORING LOGS

TF4-P1-47

BORING LOG TANK FARM 4 - P1 - TANK 44

NUS CORPORATION

PROJECT: TF4-5-CTO 143 LOCATION: NETC-Newport DRILLED BY: EDI - A J Cacon BORING NO. TF4-44-P1

DATE STARTED: 11/09/94 INCLINATION: vertical LOGGED BY: B Cleaver GROUND ELEV.:

DATE COMPLETED: 11/09/94 BEARING: CHECKED BY: TOTAL DEPTH: 8.0 feet

ELEV. feet	DEPTH feet	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
	0'							Drive to 4 feet (using 300-lb hammer) No samples collected 0' to 4'.
	4'	S-1	30-20 14-14 *	24	14	@ 12:10 SO-TF4-44-P1-0406		Gravelly, sandy SILT, poorly graded, mostly silt, ~~some~~ gravel (rock fragments, subangular, up to 2" diameter), little m-c sand, brown, DRY (ML)
	6'	S-2	14-15 35-35 *	24	11	@ 12:20 SO-TF4-44-P1-0608		~~Silty~~, sandy SILT AND GRAVEL, poorly graded (ML/GM) mostly GRAVEL AND SILT (~50/50%), gravel appears to be ~~both~~ subangular ~~pea gravel (fill) and~~ phyllite schist up to 2.5" diameter rock fragments
	8'							END OF BORING at 8.0 feet (Natural backfill with surrounding soils)

LEGEND:
TYPE-NO. - Type of sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler; coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
Z - Natural ground water table

NOTES:
* S-1 and S-2 collected using 140-lb hammer

DATE: 11-09-94 PROJECT NO. 0288
PAGE: 1 OF 1 BORING NO. TF4-44-P1

BORING LOG (BORING NO. TF4-B-44 = WELL NO. TF4-MW-1) NUS CORPORATION

PROJECT: TF4 & 5-RT0143	LOCATION: NETC-Newport	DRILLED BY: EDI - A J Jaron	BORING NO.: TF4-B44
DATE STARTED: 11/03/94	INCLINATION: vertical	LOGGED BY: B. Shaver	GROUND ELEV.: (10.9 MLW)
DATE COMPLETED: 11/09/94	BEARING:	CHECKED BY:	TOTAL DEPTH: 40'

ELEV. feet	DEPTH feet	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
11/04/94	0							11/03/94 - Auger to 10 feet (no samples)
END 11/02/94	10'							End 11/03/94 11/09/94 Auger to 20 feet (no samples) based on water table encountered at TF4-B-41.
Begin 11/09/94	20'	S-1	8-6 5-3	24	14	@ 0805		S-1 Gravelly sandy SILT, poorly graded, mostly silt, some gravel (weathered soft shale, up to 2.5" diameter), little f-m sand, Bottom 2" = moist; (ML) shale = gray, silt + sand = brown
DJ	22'	S-2	6-3 2-3	24	6	@ 0810 SO-TF4-B-44-2224		S-2 gravelly sandy SILT, poorly graded, mostly silt, some gravel (weathered soft shale) little f-m sand, brown-gray WET (ML)
~~all~~ Samples 1-8021 1-VOC 1-TPH screen	24	no DJ						(no DJ)
DJ		S-3	10-7 7-4	24	4	@ 0820		S-3 SAME as S-2
DJ	26	S-4	4-8 3-2	24	11	@ 0825		S-4 ~~Gravel~~ Sandy, gravelly SILT, poorly graded more sandy than previous samples, mostly silt some f-c sand, little gravel, brown + gray, W
1-8021 1-VOC 1-TPH screen	28 30	S-5	5-5 3-5	24	6	@ 0840 SO-TF4-B-44-2830		S-5 same as S-4 WET (M

LEGEND:
TYPE-NO - Type of sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler; boring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
Z - Natural ground water table

NOTES: All samples collected with 140-lb hammer
No readings on OVA above background

DATE: 11-08-94 PROJECT NO. 0288
PAGE: 1 OF 2 BORING NO. TF4-

BORING LOG (BORING NO. TF4-B-44 = WELL NO. TF4-MW-117) NUS CORPORATION

PROJECT: TF4 & 5 - CTO 143 LOCATION: NETC - Newport DRILLED BY: EDI - A J Paron BORING NO.: TF4-B44

DATE STARTED: 11/08/94 INCLINATION: vertical LOGGED BY: B. Cleaver GROUND ELEV.: 60.9 MLW

TE COMPLETED: 11/09/94 BEARING: CHECKED BY: TOTAL DEPTH: 40'

ELEV. feet	DEPTH feet	SAMPLE TYPE-NO.	BLOWS PER 8"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	GRAPHIC LOG	SOIL AND ROCK DESCRIPTIONS
DJ	30	S-6	7-5 1-1	24	3	0845		S-6 Gravelly sandy SILT, poorly graded, mostly silt with gravel and little m-c sand, brown + gray, WET (ML) silt gravel (phyllite/gravel rock fragment)
10 DJ	32	S-7	weight of hammer	24	0	0855		S-7 No RECOVERY
DJ	34	S-8	2-1 1-4	24	4	0913		S-8 gravelly sandy SILT, poorly graded, mostly silt and sand, some gravel, WET (ML)
5 sample NO DJ	36	S-9	5-7 8-10	24	9	0916 SO-TF4-B44-3638		S-9 - silty sandy GRAVEL (brown-gray) [redacted], poorly graded, mostly gravel (weathered rock/phyllite, + rust stained rock fragments, some silt little m-c sand) (WET) (GM)
Sample 1-VOC 1-TPH scan 1-Tox	38 40	S-10	27-96 120/1"	13	12	0944 SO-TF4-B44-3640		S-10 ft 9" silty GRAVEL, poorly graded, mostly gravel some silt, little m-c sand, rock fragments (SRB phyllite ~ 3" diameter) at bottom of spoon (WET) (GM) no odor

Auger to 40 feet. EOB = 40'

Backfill with sand 38' to 40'
Install well screen 33' to 38'
Backfill with sand 31' to 35'
Bentonite chips seal 29' to 31'
Bentonite + sand grout 4' to 29'
Sand (drain layer) 2.5' to 4'
Cemented to 2.5' around protective casing
Refer to Well Construction Log

LEGEND:
TYPE-NO - Type of sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb hammer falling 30" to drive a split barrel sampler
Boring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered

NOTES. All samples collected with 140-lb hammer.
No readings on OVA above background.

DATE: 11-09-94 PROJECT NO. 0288
PAGE 2 OF 2 BORING NO.: TF4-B44

APPENDIX H
SOIL AND GROUNDWATER ANALYTICAL RESULTS

E NO. CTO143

IIC CORPORATION

SOIL VOLATILE ORGANICS (ug/Kg)

TION ID:			SOTF4B443638	SOTF4B472830	SOTF4B473840	SOTF4B482729	SOTF4B483941
ORATORY ID:			940980-23	940980-24	940980-25	940980-27	940980-28
LYTE	CRQL	MDL/IDL					
rom thane	10	2	11 U	11 U	12 U	1400 U	59 U
nomethane	10	2	11 U	11 U	12 U	1400 U	59 U
l Chloride	10	2	11 U	11 U	12 U	1400 U	59 U
roethane	10	2	11 U	11 U	12 U	1400 U	59 U
hylen Chloride	10	2	11 U	11 U	12 U	1500 U	59 U
tone	10	2	11 U	11 U	12 U	1400 U	59 U
bon Disulfide	10	2	11 U	11 U	12 U	1400 U	59 U
Dichl roethen	10	2	11 U	11 U	12 U	1400 U	59 U
Dichlor ethan	10	2	11 U	11 U	12 U	1400 U	59 U
Dichl roethene (total)	10	2	11 U	11 U	12 U	1400 U	59 U
oroform	10	2	11 U	11 U	12 U	1400 U	59 U
-Dichloro thane	10	2	11 U	11 U	12 U	1400 U	59 U
utanone	10	2	11 U	11 U	12 U	1400 U	59 U
,1-Trichlor ethan	10	2	11 U	11 U	12 U	1400 U	59 U
rbon Tetrachlorid	10	2	11 U	11 U	12 U	1400 U	59 U
modichloromethane	10	2	11 U	11 U	12 U	1400 U	59 U
-Dichlor propane	10	2	11 U	11 U	12 U	1400 U	59 U
-1,3-Dichloropropene	10	2	11 U	11 U	12 U	1400 U	59 U
chloroethene	10	2	11 U	11 U	12 U	1400 U	59 U
romochloromethane	10	2	11 U	11 U	12 U	1400 U	59 U
,2-Trichloroethane	10	2	11 U	11 U	12 U	260 J	59 U
nzene	10	2	11 U	11 U	12 U	1400 U	59 U
ns-1,3-Dichloropropene	10	2	11 U	11 U	12 U	1400 U	59 U
om form	10	2	11 U	11 U	12 U	1400 U	59 U
M thyl-2-Pentan n	10	2	11 U	11 U	12 U	1400 U	59 U
Hexan ne	10	2	11 U	11 U	12 U	1400 U	59 U
trachloroethene	10	2	11 U	11 U	12 U	1400 U	59 U
l,2,2-Tetrachloroethan	10	2	11 U	11 U	12 U	1400 U	59 U
lu n	10	2	11 U	11 U	12 U	1400 U	59 U
lorob nzene	10	2	11 U	11 U	12 U	1400 U	59 U
hylbenzene	10	2	11 U	11 U	12 U	1400 U	59 U
yr n	10	2	11 U	11 U	12 U	1400 U	59 U
lene (total)							
ILUTION FACTOR:			1	1	1	1	1
SOLIDS			87	87	82	87	85

E NO CTO143

/IC CORPORATION

AQUEOUS VOLATILE ORGANICS (ug/L)

.TION ID:			GW-TF4-MW114	GW-TF4-MW115	GW-TF4-MW116	GW-TF4-MW117	GW-TF4-MW118
.ORATORY ID.			941027-01	941027-02	941027-03	941027-04	941027-05
\LYTE	CRQL	MDL/IDL					
romethane	10	2	10 U	10 U	10 U	10 U	10 U
m methane	10	2	10 U	10 U	10 U	10 U	10 U
/l Chloride	10	2	10 U	10 U	10 U	10 U	10 U
oroethane	10	2	10 U	10 U	10 U	10 U	10 U
thylene Chl ride	10	2	10 U	10 U	10 U	10 U	10 U
tone	10	2	13 U	14 U	18 U	21 U	25 U
bon Disulfide	10	2	10 U	10 U	10 U	10 U	10 U
-Dichloroethene	10	2	10 U	10 U	10 U	10 U	10 U
-Dichloroethane	10	2	10 U	10 U	10 U	10 U	10 U
-Dichloroethene (total)	10	2	10 U	10 U	10 U	10 U	10 U
l roform	10	2	10 U	10 U	10 U	10 U	10 U
-Dichloroethan	10	2	10 U	2 J	2 J	2 J	2 J
lutan ne	10	2	10 U	10 U	10 U	10 U	10 U
,1-Trichl r ethan	10	2	10 U	10 U	10 U	10 U	10 U
rbon Tetrachl ride	10	2	10 U	10 U	10 U	10 U	10 U
omodichloromethane	10	2	10 U	10 U	10 U	10 U	10 U
-Dichloropropane	10	2	10 U	10 U	10 U	10 U	10 U
-1,3-Dichloropropen	10	2	10 U	10 U	10 U	10 U	10 U
chl roeth n	10	2	10 U	10 U	10 U	10 U	10 U
romochloromethan	10	2	10 U	10 U	10 U	10 U	10 U
l,2-Trichloroethan	10	2	10 U	10 U	10 U	10 U	10 U
nzene	10	2	10 U	10 U	10 U	10 U	10 U
ns-1,3-Dichlor pr pene	10	2	10 U	10 U	10 U	10 U	10 U
omoform	10	2	10 U	10 U	10 U	10 U	10 U
Methyl-2-Pentanon	10	2	10 U	10 U	10 U	10 U	10 U
Hexanone	10	2	10 U	10 U	10 U	10 U	10 U
trachloroethene	10	2	10 U	10 U	10 U	10 U	10 U
1,2,2-Tetrachlor ethane	10	2	10 U	10 U	10 U	10 U	10 U
luene	10	2	10 U	10 U	10 U	10 U	10 U
hl r benzene	10	2	10 U	10 U	10 U	10 U	10 U
thylbenzen	10	2	10 U	10 U	10 U	10 U	10 U
yren	10	2	10 U	10 U	10 U	10 U	10 U
ylene (total)							
ILUTION FACTOR:			1	1	1	1	1

1027VAQ WK4

CASE NO CTO143

CEIMIC CORPORATION

TCL SOIL SEMI-VOLATILE ORGANICS (ug/kg)

STATION ID:			SOTF4B443638	SOTF4B472830	SOTF4B473840	SOTF4B482729	SOTF4B483941
LABORATORY ID:			940980-23	940980-24	940980-25	940980-27	940980-28
ANALYTE	CRQL	MDL/IDL					
PHENOL	300	30	380 U	370 U	390 U	380 U	370 U
BIS(2-CHLOROETHYL)ETHER	300	30	380 U	370 U	390 U	380 U	370 U
2-CHLOROPHENOL	300	30	380 U	370 U	390 U	380 U	370 U
1,3-DICHLOROBENZENE	300	30	380 U	370 U	390 U	380 U	370 U
1,4-DICHLOROBENZENE	300	30	380 U	370 U	390 U	380 U	370 U
1,2-DICHLOROBENZENE	300	30	380 U	370 U	390 U	380 U	370 U
2-METHYLPHENOL	300	30	380 U	370 U	390 U	380 U	370 U
2,2'-OXYBIS(1-CHLOROPROPANE)	300	30	380 U	370 U	390 U	380 U	370 U
4-METHYLPHENOL	300	30	380 U	370 U	390 U	380 U	370 U
N-NITROSO-DI-n-PROPYLAMINE	300	30	380 U	370 U	390 U	380 U	370 U
HEXACHLOROETHANE	300	30	380 U	370 U	390 U	380 U	370 U
NITROBENZENE	300	30	380 U	370 U	390 U	380 U	370 U
ISOPHORONE	300	30	380 U	370 U	390 U	380 U	370 U
2-NITROPHENOL	300	30	380 U	370 U	390 U	380 U	370 U
2,4-DIMETHYLPHENOL	300	30	380 U	370 U	390 U	380 U	370 U
BIS(2-CHLOROETHOXY)METHANE	300	30	380 U	370 U	390 U	380 U	370 U
2,4-DICHLOROPHENOL	300	30	380 U	370 U	390 U	380 U	370 U
1,2,4-TRICHLOROBENZENE	300	30	380 U	370 U	390 U	380 U	370 U
NAPHTHALENE	300	30	380 U	370 U	390 U	380 U	370 U
4-CHLOROANILINE	300	30	380 U	370 U	390 U	380 U	370 U
HEXACHLOROBUTADIENE	300	30	380 U	370 U	390 U	380 U	370 U
4-CHLORO-3-METHYLPHENOL	300	30	380 U	370 U	390 U	1200	71 J
2-METHYLNAPHTHALENE	300	30	380 U	370 U	390 U	380 U	370 U
HEXACHLOROCYCLOPENTADIENE	300	30	380 U	370 U	390 U	380 U	370 U
2,4,6-TRICHLOROPHENOL	800	80	930 U	900 U	950 U	920 U	900 U
2,4,5-TRICHLOROPHENOL	300	30	380 U	370 U	390 U	380 U	370 U
2-CHLORONAPHTHALENE	800	80	930 U	900 U	950 U	920 U	900 U
2-NITROANILINE	300	30	380 U	370 U	390 U	380 U	370 U
DIMETHYLPHTHALATE	300	30	380 U	370 U	390 U	380 U	43 J
ACENAPHTHYLENE	300	30	380 U	370 U	390 U	380 U	370 U
2,6-DINITROTOLUENE	800	80	930 U	900 U	950 U	920 U	900 U
3-NITROANILINE							

CASE NO CTO143

CEIMIC CORPORATION

TCL SOIL SEMI-VOLATILE ORGANICS (ug/kg)

STATION ID.			SOTF4B443638	SOTF4B472830	SOTF4B473840	SOTF4B482729	SOTF4B483941
LABORATORY ID.			940980-23	940980-24	940980-25	940980-27	940980-28
ANALYTE	CRQL	MDL/DL					
ACENAPHTHENE	300	30	380 U	370 U	390 U	290 J	110 J
2,4-DINITROPHENOL	800	80	930 U	900 U	950 U	920 U	900 U
4-NITROPHENOL	800	80	930 U	900 U	950 U	920 U	900 U
DIBENZOFURAN	300	30	380 U	370 U	390 U	210 J	370 U
2,4-DINITROTOLUENE	300	30	380 U	370 U	390 U	380 U	370 U
DIETHYL PHTHALATE	300	30	380 U	370 U	390 U	380 U	370 U
4-CHLOROPHENYL-PHENYL ETHER	300	30	380 U	370 U	390 U	380 U	370 U
FLUORENE	300	30	380 U	370 U	390 U	570	240 J
4-NITROANILINE	800	80	930 U	900 U	950 U	920 U	900 U
4,6-DINITRO-2-METHYLPHENOL	800	80	930 U	900 U	950 U	920 U	900 U
N-NITROSODIPHENYLAMINE	300	30	380 U	370 U	390 U	1100	370 U
4-BROMOPHENYL-PHENYL ETHER	300	30	380 U	370 U	390 U	380 U	370 U
HEXACHLOROBENZENE	300	30	380 U	370 U	390 U	380 U	370 U
PENTACHLOROPHENOL	800	80	930 U	900 U	950 U	920 U	900 U
PHENANTHRENE	300	30	380 U	370 U	390 U	1400	560
ANTHRACENE	300	30	380 U	370 U	390 U	270 J	290 J
DI-n-BUTYLPHTHALATE	300	30	380 U	370 U	390 U	380 U	370 U
FLUORANTHENE	300	30	380 U	370 U	390 U	120 J	81 J
CARBAZOLE	300	30	380 U	370 U	390 U	380 U	370 U
PYRENE	300	30	380 U	370 U	390 U	620	1300
BUTYLBENZYLPHTHALATE	300	30	380 U	370 U	390 U	380 U	370 U
3,3'-DICHLOROBENZIDINE	300	30	380 U	370 U	390 U	380 U	370 U
BENZO(a)ANTHRACENE	300	30	380 U	370 U	390 U	96 J	370 U
CHRYSENE	300	30	380 U	370 U	390 U	150 J	160 J
BIS(2-ETHYLHEXYL)PHTHALATE	300	30	73 J	370 U	87 J	71 J	640
DI-n-OCTYLPHTHALATE	300	30	380 U	370 U	390 U	380 U	370 U
BENZO(b)FLUORANTHENE	300	30	380 U	370 U	390 U	380 U	370 U
BENZO(k)FLUORANTHENE	300	30	380 U	370 U	390 U	380 U	370 U
BENZO(a)PYRENE	300	30	380 U	370 U	390 U	76 J	76 J
INDENO(1,2,3-cd)PYRENE	300	30	380 U	370 U	390 U	380 U	370 U
DIBENZO(a,h)ANTHRACENE	300	30	380 U	370 U	390 U	380 U	370 U
BENZO(g,h,i)PERYLENE	300	30	380 U	370 U	390 U	380 U	64 J
DILUTION FACTOR			1	1	1	1	1
% SOLIDS			86	88	83	87	87

CASE NO CTO143

CEIMIC CORPORATION

TCL SOIL SEMI-VOLATILE ORGANICS (ug/kg)

STATION ID:			SOTF4B413032	SOTF4B413840	SOTF4B432830	SOTF4B433638	SOTF4B442224
LABORATORY ID:			940980-18	940980-19	940980-20	940980-21	940980-22
ANALYTE	CRQL	MDL/IDL					
PHENOL	300	30	380 U	380 U	380 U	380 U	380 U
BIS(2-CHLOROETHYL)ETHER	300	30	380 U	380 U	380 U	380 U	380 U
2-CHLOROPHENOL	300	30	380 U	380 U	380 U	380 U	380 U
1,3-DICHLOROBENZENE	300	30	380 U	380 U	380 U	380 U	380 U
1,4-DICHLOROBENZENE	300	30	380 U	380 U	380 U	380 U	380 U
1,2-DICHLOROBENZENE	300	30	380 U	380 U	380 U	380 U	380 U
2-METHYLPHENOL	300	30	380 U	380 U	380 U	380 U	380 U
2,2'-OXYBIS(1-CHLOROPROPANE)	300	30	380 U	380 U	380 U	380 U	380 U
4-METHYLPHENOL	300	30	380 U	380 U	380 U	380 U	380 U
N-NITROSO-DI-n-PROPYLAMINE	300	30	380 U	380 U	380 U	380 U	380 U
HEXACHLOROETHANE	300	30	380 U	380 U	380 U	380 U	380 U
NITROBENZENE	300	30	380 U	380 U	380 U	380 U	380 U
ISOPHORONE	300	30	380 U	380 U	380 U	380 U	380 U
2-NITROPHENOL	300	30	380 U	380 U	380 U	380 U	380 U
2,4-DIMETHYLPHENOL	300	30	380 U	380 U	380 U	380 U	380 U
BIS(2-CHLOROETHOXY)METHANE	300	30	380 U	380 U	380 U	380 U	380 U
2,4-DICHLOROPHENOL	300	30	380 U	380 U	380 U	380 U	380 U
1,2,4-TRICHLOROBENZENE	300	30	380 U	380 U	380 U	380 U	380 U
NAPHTHALENE	300	30	380 U	380 U	380 U	380 U	380 U
4-CHLOROANILINE	300	30	380 U	380 U	380 U	380 U	380 U
HEXACHLOROBUTADIENE	300	30	380 U	380 U	380 U	380 U	380 U
4-CHLORO-3-METHYLPHENOL	300	30	380 U	49 J	380 U	380 U	380 U
2-METHYLNAPHTHALENE	300	30	380 U	380 U	380 U	380 U	380 U
HEXACHLOROCYCLOPENTADIENE	300	30	380 U	380 U	380 U	380 U	380 U
2,4,6-TRICHLOROPHENOL	800	80	930 U	920 U	930 U	930 U	920 U
2,4,5-TRICHLOROPHENOL	300	30	380 U	380 U	380 U	380 U	380 U
2-CHLORONAPHTHALENE	800	80	930 U	920 U	930 U	930 U	920 U
2-NITROANILINE	300	30	380 U	380 U	380 U	380 U	380 U
DIMETHYLPHTHALATE	300	30	380 U	380 U	380 U	380 U	380 U
ACENAPHTHYLENE	300	30	380 U	380 U	380 U	380 U	380 U
2,6-DINITROTOLUENE	800	80	930 U	920 U	930 U	930 U	920 U
3-NITROANILINE							

CASE NO. CTO143

CEIMIC CORPORATION

TCL SOIL SEMI-VOLATILE ORGANICS (ug/kg)

STATION ID:			SOTF4B413032	SOTF4B413840	SOTF4B432830	SOTF4B433638	SOTF4B442224
LABORATORY ID:			940980-18	940980-19	940980-20	940980-21	940980-22
ANALYTE	CRQL	MDL/DL					
ACENAPHTHENE	300	30	380 U	380 U	380 U	380 U	380 U
2,4-DINITROPHENOL	800	80	930 U	920 U	930 U	930 U	920 U
4-NITROPHENOL	800	80	930 U	920 U	930 U	930 U	920 U
DIBENZOFURAN	300	30	380 U	380 U	380 U	380 U	380 U
2,4-DINITROTOLUENE	300	30	380 U	380 U	380 U	380 U	380 U
DIETHYL PHTHALATE	300	30	380 U	380 U	380 U	380 U	380 U
4-CHLOROPHENYL-PHENYL ETHER	300	30	380 U	380 U	380 U	380 U	380 U
FLUORENE	300	30	380 U	380 U	380 U	380 U	380 U
4-NITROANILINE	800	80	930 U	920 U	930 U	930 U	920 U
4,6-DINITRO-2-METHYLPHENOL	800	80	930 U	920 U	930 U	930 U	920 U
N-NITROSODIPHENYLAMINE	300	30	380 U	63 J	380 U	380 U	380 U
4-BROMOPHENYL-PHENYL ETHER	300	30	380 U	380 U	380 U	380 U	380 U
HEXACHLOROBENZENE	300	30	380 U	380 U	380 U	380 U	380 U
PENTACHLOROPHENOL	800	80	930 U	920 U	930 U	930 U	920 U
PHENANTHRENE	300	30	380 U	100 J	380 U	380 U	380 U
ANTHRACENE	300	30	380 U	380 U	380 U	380 U	380 U
DI-n-BUTYLPHTHALATE	300	30	380 U	380 U	380 U	380 U	380 U
FLUORANTHENE	300	30	380 U	380 U	380 U	380 U	380 U
CARBAZOLE	300	30	380 U	380 U	380 U	380 U	380 U
PYRENE	300	30	380 U	51 J	380 U	380 U	380 U
BUTYLBENZYLPHTHALATE	300	30	380 U	380 U	380 U	380 U	380 U
3,3'-DICHLOROBENZIDINE	300	30	380 U	380 U	380 U	380 U	380 U
BENZO(a)ANTHRACENE	300	30	380 U	380 U	380 U	380 U	380 U
CHRYSENE	300	30	380 U	380 U	380 U	380 U	380 U
BIS(2-ETHYLHEXYL)PHTHALATE	300	30	97 J	60 J	85 J	66 J	870
DI-n-OCTYLPHTHALATE	300	30	380 U	380 U	380 U	380 U	380 U
BENZO(b)FLUORANTHENE	300	30	380 U	380 U	380 U	380 U	380 U
BENZO(k)FLUORANTHENE	300	30	380 U	380 U	380 U	380 U	380 U
BENZO(a)PYRENE	300	30	380 U	380 U	380 U	380 U	380 U
INDENO(1,2,3-cd)PYRENE	300	30	380 U	380 U	380 U	380 U	380 U
DIBENZO(a,h)ANTHRACENE	300	30	380 U	380 U	380 U	380 U	380 U
BENZO(g,h,i)PERYLENE	300	30	380 U	380 U	380 U	380 U	380 U
DILUTION FACTOR:			1	1	1	1	1
% SOLIDS			86	86	86	86	86

CASE NO CTO143

CEIMIC CORPORATION

TCL AQUEOUS SEMI-VOLATILE ORGANICS (ug/L)

STATION ID:			GW-TF4-MW114	GW-TF4-MW115	GW-TF4-MW116	GW-TF4-MW117	GW-TF4-MW118
LABORATORY ID:			941027-01	941027-02	941027-03	941027-04	941027-05
ANALYTE	CRQL	MDL/IDL					
PHENOL	10	1	10 U	10 U	10 U	10 U	10 U
BIS(2-CHLOROETHYL)ETHER	10	1	10 U	10 U	10 U	10 U	10 U
2-CHLOROPHENOL	10	1	10 U	10 U	10 U	10 U	10 U
1,3-DICHLOROBENZENE	10	1	10 U	10 U	10 U	10 U	10 U
1,4-DICHLOROBENZENE	10	1	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROBENZENE	10	1	10 U	10 U	10 U	10 U	10 U
2-METHYLPHENOL	10	1	10 U	10 U	10 U	10 U	10 U
2,2'-OXYBIS(1-CHLOROPROPANE)	10	1	10 U	10 U	10 U	10 U	10 U
4-METHYLPHENOL	10	1	10 U	10 U	10 U	10 U	10 U
N-NITROSO-DI-n-PROPYLAMINE	10	1	10 U	10 U	10 U	10 U	10 U
HEXACHLOROETHANE	10	1	10 U	10 U	10 U	10 U	10 U
NITROBENZENE	10	1	10 U	10 U	10 U	10 U	10 U
ISOPHORONE	10	1	10 U	10 U	10 U	10 U	10 U
2-NITROPHENOL	10	1	10 U	10 U	10 U	10 U	10 U
2,4-DIMETHYLPHENOL	10	1	10 U	10 U	10 U	10 U	10 U
BIS(2-CHLOROETHOXY)METHANE	10	1	10 U	10 U	10 U	10 U	10 U
2,4-DICHLOROPHENOL	10	1	10 U	10 U	10 U	10 U	10 U
1,2,4-TRICHLOROBENZENE	10	1	10 U	10 U	10 U	10 U	10 U
NAPHTHALENE	10	1	10 U	10 U	10 U	10 U	10 U
4-CHLOROANILINE	10	1	10 U	10 U	10 U	10 U	10 U
HEXACHLOROBUTADIENE	10	1	10 U	10 U	10 U	10 U	10 U
4-CHLORO-3-METHYLPHENOL	10	1	10 U	10 U	10 U	10 U	10 U
2-METHYLNAPHTHALENE	10	1	10 U	10 U	10 U	10 U	10 U
HEXACHLOROCYCLOPENTADIENE	10	1	10 U	10 U	10 U	10 U	10 U
2,4,6-TRICHLOROPHENOL	10	1	10 U	10 U	10 U	10 U	10 U
2,4,5-TRICHLOROPHENOL	25	2.5	25 U	25 U	25 U	25 U	25 U
2-CHLORONAPHTHALENE	10	1	10 U	10 U	10 U	10 U	10 U
2-NITROANILINE	25	2.5	25 U	25 U	25 U	25 U	25 U
DIMETHYLPHTHALATE	10	1	10 U	10 U	10 U	10 U	10 U
ACENAPHTHYLENE	10	1	10 U	10 U	10 U	10 U	10 U
2,6-DINITROTOLUENE	10	1	10 U	10 U	10 U	10 U	10 U
3-NITROANILINE	25	2.5	25 U	25 U	25 U	25 U	25 U

.ASE NO CTO143

EIMIC CORPORATION

CL AQUEOUS SEMI-VOLATILE ORGANICS (ug/L)

;TATION ID:			GW-TF4-MW114	GW-TF4-MW115	GW-TF4-MW116	GW-TF4-MW117	GW-TF4-MW118
ABORATORY ID.			941027-01	941027-02	941027-03	941027-04	941027-05
\NALYTE	CRQL	MDL/IDL					
\CENAPHTHENE	10	1	10 U	10 U	10 U	10 U	10 U
2,4-DINITROPHENOL	25	2 5	25 U	25 U	25 U	25 U	25 U
4-NITROPHENOL	25	2.5	25 U	25 U	25 U	25 U	25 U
DIBENZOFURAN	10	1	10 U	10 U	10 U	10 U	10 U
2,4-DINITROTOLUENE	10	1	10 U	10 U	10 U	10 U	10 U
DIETHYL PHTHALATE	10	1	10 U	10 U	10 U	10 U	10 U
4-CHLOROPHENYL-PHENYL ETHER	10	1	10 U	10 U	10 U	10 U	10 U
FLUORENE	10	1	10 U	10 U	10 U	10 U	10 U
4-NITROANILINE	25	2 5	25 U	25 U	25 U	25 U	25 U
4,6-DINITRO-2-METHYLPHENOL	25	2 5	25 U	25 U	25 U	25 U	25 U
N-NITROSODIPHENYLAMINE	10	1	10 U	10 U	10 U	10 U	10 U
4-BROMOPHENYL-PHENYL ETHER	10	1	10 U	10 U	10 U	10 U	10 U
HEXACHLOROBENZENE	10	1	10 U	10 U	10 U	10 U	10 U
PENTACHLOROPHENOL	25	2.5	25 U	25 U	25 U	25 U	25 U
PHENANTHRENE	10	1	10 U	10 U	10 U	10 U	10 U
ANTHRACENE	10	1	10 U	10 U	10 U	10 U	10 U
DI-n-BUTYLPHTHALATE	10	1	10 U	10 U	10 U	10 U	10 U
FLUORANTHENE	10	1	10 U	10 U	10 U	10 U	10 U
CARBAZOLE	10	1	10 U	10 U	10 U	10 U	10 U
PYRENE	10	1	10 U	10 U	10 U	10 U	10 U
BUTYLBENZYLPHTHALATE	10	1	10 U	10 U	10 U	10 U	10 U
3,3'-DICHLOROBENZIDINE	10	1	10 U	10 U	10 U	10 U	10 U
BENZO(a)ANTHRACENE	10	1	10 U	10 U	10 U	10 U	10 U
CHRYSENE	10	1	10 U	10 U	10 U	10 U	10 U
BIS(2-ETHYLHEXYL)PHTHALATE	10	1	10 U	10 U	10 U	10 U	10 U
DI-n-OCTYLPHTHALATE	10	1	10 U	10 U	10 U	10 U	10 U
BENZO(b)FLUORANTHENE	10	1	10 U	10 U	10 U	10 U	10 U
BENZO(k)FLUORANTHENE	10	1	10 U	10 U	10 U	10 U	10 U
BENZO(a)PYRENE	10	1	10 U	10 U	10 U	10 U	10 U
INDENO(1,2,3-cd)PYRENE	10	1	10 U	10 U	10 U	10 U	10 U
DIBENZO(a,h)ANTHRACENE	10	1	10 U	10 U	10 U	10 U	10 U
BENZO(g,h,i)PERYLENE	10	1	10 U	10 U	10 U	10 U	10 U
DILUTION FACTOR.			1	1	1	1	1

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:ASE NO. CTO143

:EIMIC CORPORATION
'OTAL
(CRA SOIL METALS (mg/Kg)

;TATION ID:			SOTF4B433638	SOTF4B442224	SOTF4B443638	SOTF4B472830	SOTF4B473840	SOTF4B482729
;ABORATORY ID:			940980-21	940980-22	940980-23	940980-24	940980-25	940980-27
\NALYTE	CRDL	IDL						
\RSENIC	1	0 2	9 4	13 3	12 9	19 2	16 5	10 4
3ARIUM	20	0.3	19 3	6 6	6 9	8 9	14 6	11 5
:ADMIUM	0.5	0 4	1 4	1.7	2 4	2 2	2 3	1 8
:HROMIUM	1	0.7	9 0	11 9	10 8	11 1	15 1	12 6
.EAD	0 3	0.1	10 4	6 9	4 8	5 8	7.8	9.0
MERCURY	0.1	0.05	0.05 U	0.05 U	0 05 U	0 05 U	0 05 U	0 05 U
SELENIUM	0.5	0 2/0 4	0.38 U	0 21 U	0 33 U	0 18 U	0.32 U	0.19 U
SILVER	1	0.4	0.38 UJ	1.1 U	1 8 U	1 2 U	1.4 U	0.81 UJ
% SOLIDS			81.3	86 6	85 8	87 8	83 7	84

SE NO. CTO143

IMIC CORPORATION
TAL
RA AQUEOUS METALS (ug/L)

ATION ID BORATORY ID.	CRDL	IDL	GW-TF4-MW114 941027-01	GW-TF4-MW115 941027-02	GW-TF4-MW116 941027-03	GW-TF4-MW117 941027-04	GW-TF4-MW118 941027-05	GW-TF5-MW102 941027-06
IALYTE								
:SENIC	10	2	2 0 U	2.0 U	2 0 U	2 0 U	2 6 B	2 6 B
,RIUM	200	1	15 2 U	10.9 U	17 5 U	8 8 U	18 4 U	8 9 U
\DMIUM	5	3	3 0 U	3 0 U	3 0 U	3 0 U	3 0 U	3 0 U
IROMIUM	10	5	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U	5 0 U
:)	3	1	1 0 U	1.0 U	1 1 B	1.0 U	1 0 U	1 0 U
RCURY	0 2	0 1	0.13 UJ	0.15 UJ	0.14 UJ	0.14 UJ	0 13 UJ	0 14 UJ
:LENIUM	5	2	2 0 U	2 0 U	2 0 U	2 0 U	2 0 U	2 0 U
LVER	10	4	4 0 U	4.3 UJ	4 0 U	4 0 U	4.0 U	4 0 U

APPENDIX I
CHAIN-OF-CUSTODY FORMS

MITKEM CORPORATION
175 Metro Center Boulevard ● Warwick, Rhode Island 02886-1755
(401) 732-3400 ● Fax (401) 732-3499
1232 East Broadway Road, Suite 210 ● Tempe, Arizona 85282
(602 303-9535 ● Fax (602) 921-2883

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

REPORT TO		INVOICE TO		LAB REFERENCE #.
COMPANY Foster Wheeler	PHONE 842-6940	COMPANY Foster Wheeler	PHONE 842-6940	
NAME Mark Gouveia	FAX 842-6970	NAME	FAX 842-6970	
ADDRESS P.O. Box 4749		ADDRESS P.O. Box 4749		TURNAROUND TIME
CITY/ST/ZIP Middletown RI 02842		CITY/ST/ZIP Middletown RI 02842		1 Week TAT.

CLIENT PROJECT NAME	CLIENT PROJECT #	CLIENT P O #
Tank Farm # 4	DO # 13F	063195

REQUESTED ANALYSES

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	VOCs	SVOCs	TPH	RCRA & METALS	COMMENTS
TPTK-44	7/16/97 1440	✓	✓		✓			3	✓	✓	✓	✓	
TPTK44-12DP	7/16/97 1440	✓	✓		✓			3	✓	✓	✓	✓	
TPTK-39	7/16/97 1400	✓	✓		✓			3	✓	✓	✓	✓	
TPTK-39-DUP	7/16/97 1400	✓	✓		✓			3	✓	✓	✓	✓	
TK4-TB3	/			✓				2	✓				
	/												
	/												
	/												
	/												
	/												
	/												
	/												

TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME
1st	[illegible]	7/16/97 1400	[illegible]	7/16/97 1400
2nd		/		/
3rd		/		/

ADDITIONAL REMARKS:

COOLER TEMP.

WHITE: LABORATORY COPY YELLOW: REPORT COPY PINK: CLIENT'S COPY

APPENDIX J
TEST PIT ANALYTICAL RESULTS

MITKEM CORPORATION

July 24, 1997

Foster Wheeler Environmental Corp.
Attn: Mr. Mark Gouveia
P.O. Box 4749
Middletown, RI 02842

RE: Client Project #DO# 13F, Tank Farm #4
Lab Project #D1120

Dear Mr. Gouveia:

Enclosed please find the data report of the required analyses for the samples associated with the above referenced project. If you have any questions regarding this report, please call me.

We appreciate your business.

Sincerely,

Edward A. Lawler
Laboratory Operations Manager

175 Metro Center Boulevard • Warwick, Rhode Island 02886-1755 • (401) 732-3400 Fax (401) 732-349
1232 East Broadway Road, Suite 210 • Tempe, Arizona 85282 • (602) 303-9535 • Fax (602) 921-2883
email: mitkem19@mail.idt.net

MITKEM CORPORATION

Client: Foster Wheeler Environmental Corp.

Client Project: D)# 13F, Tank Farm #4

Lab Project: D1120

Date samples received: 7/16/97

Project Narrative

This data report includes the analysis results for one (1) aqueous sample and four (4) soil samples that were received from the Tank Farm #4 site from Foster Wheeler Environmental Corp. on July 16, 1997. Analyses were performed per specification in the Chain of Custody form. For reference, a copy of the Mitkem Sample Log-In form is included for cross-referencing the client sample ID and laboratory sample ID.

All of the analyses were performed according to method specifications. No unusual observation was made for the analyses.

This data report has been reviewed and is authorized for release as evidenced by the signature below.

Edward A. Lawler
Laboratory Operations Manager

MITKEM CORPORATION

Analysis Report: Total Petroleum Hydrocarbons

Client: Foster Wheeler Environmental, Inc.
Analysis: Method 418.1
Matrix: Soil
Concentration in: mg/kg, dry weight basis

Lab ID	Client ID	Result	Reporting Limit	% Solid	Analysis Date
D1120-01	TPTK-44	ND	24	92	7/23/97
D1120-02	TPTK-44 Dup	ND	24	92	7/23/97
D1120-03	TPTK-39	ND	23	95	7/23/97
D1120-04	TPTK-39 Dup	ND	23	94	7/23/97

QA/QC

Method Blank			
I0722-B1	ND	22	7/23/97
Lab Control Spike (% Recovery)			
I0722-LCS1	111		7/23/97

ND = Not Detected

MITKEM CORPORATION

Analysis Report: Volatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID: TPTK-44
Lab ID: D1120-01
Analysis: Method 8260

Analysis Date: 7/18/97
Matrix: Soil, 92% solids
Concentration in: ug/kg, dry weight basis
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5

003

D1120-01

MITKEM CORPORATION

Client ID: TPTK-44

Lab ID: D1120-01

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE	ND	5
Naphthalene	ND	5

QC Batch: V2B0718A

Surrogate Recovery:	
1,2-Dichloroethane-d4	100%
Toluene-d8	98%
Bromofluorobenzene	92%

ND = Not detected

00

MITKEM CORPORATION

Analysis Report: Total Metals

Client: Foster Wheeler Environmental Corp.
Client ID: TPTK-44
Lab ID: D1120-01
Analysis Method: 7471A (Mercury)
6010A (Others)

Matrix: Soil, 92% Solids
Concentration in: mg/kg, dry weight basis
Analysis Date: 7/18/97

Analyte	Results	Reporting Limit
Arsenic	9	1
Barium	18	1
Cadmium	0.6	0.1
Chromium	15	1
Lead	11	1
Mercury	ND	0.3
Selenium	ND	2
Silver	ND	1

QC Batch: 0717PBS1

ND = Not detected

MITKEM CORPORATION

Analysis Report: Semivolatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID: TPTK-44
Lab ID: D1120-01
Analysis: Method 8270

Analysis Date: 7/22/97
Matrix: Soil, 92% solids
Concentration in: ug/kg, dry weight basis
Dilution: 1

Analyte	Results	Reporting Limits
Phenol	ND	360
bis(2-Chloroethyl)ether	ND	360
2-Chlorophenol	ND	360
1,3-Dichlorobenzene	ND	360
1,4-Dichlorobenzene	ND	360
1,2-Dichlorobenzene	ND	360
2-Methylphenol	ND	360
2,2'-oxybis(1-Chloropropane)	ND	360
4-Methylphenol	ND	360
n-Nitroso-di-n-propylamine	ND	360
Hexachloroethane	ND	360
Nitrobenzene	ND	360
Isophorone	ND	360
2-Nitrophenol	ND	360
2,4-Dimethylphenol	ND	360
bis(2-Chloroethoxy)methane	ND	360
2,4-Dichlorophenol	ND	360
1,2,4-Trichlorobenzene	ND	360
Naphthalene	ND	360
4-Chloroaniline	ND	360
Hexachlorobutadiene	ND	360
4-Chloro-3-methylphenol	ND	360
2-Methylnaphthalene	ND	360
Hexachlorocyclopentadiene	ND	360
2,4,6-Trichlorophenol	ND	360
2,4,5-Trichlorophenol	ND	900
2-Chloronaphthalene	ND	360
2-Nitroaniline	ND	900
Dimethylphthalate	ND	360
Acenaphthylene	ND	360
2,6-Dinitrotoluene	ND	360
3-Nitroaniline	ND	900
Acenaphthene	ND	360
2,4-Dinitrophenol	ND	900
4-Nitrophenol	ND	900
Dibenzofuran	ND	360
2,4-Dinitrotoluene	ND	360

023

MITKEM CORPORATION

Client ID: TPTK-44

Lab ID: D1120-01

Analyte	Results	Reporting Limits
Diethylphthalate	ND	360
Fluorene	ND	360
4-Chlorophenyl-phenylether	ND	360
4-Nitroaniline	ND	900
4,6-Dinitro-2-methylphenol	ND	900
n-Nitrosodiphenylamine	ND	360
4-Bromophenyl-phenylether	ND	360
Hexachlorobenzene	ND	360
Pentachlorophenol	ND	900
Phenanthrene	ND	360
Anthracene	ND	360
Di-n-butylphthalate	ND	360
Carbazole	ND	360
Fluoranthene	ND	360
Pyrene	ND	360
Butylbenzylphthalate	ND	360
Benzo(a)anthracene	ND	360
Chrysene	ND	360
3,3'-Dichlorobenzidine	ND	360
bis(2-Ethylhexyl)phthalate	ND	360
Di-n-octylphthalate	ND	360
Benzo(b)fluoranthene	ND	360
Benzo(k)fluoranthene	ND	360
Benzo(a)pyrene	ND	360
Indeno(1,2,3-cd)pyrene	ND	360
Dibenz(a,h)anthracene	ND	360
Benzo(g,h,i)perylene	ND	360

QC Batch: S0717-B2

Surrogate Recovery:	
2-Fluorophenol	51%
Phenol-d5	61%
2-Chlorophenol-d4	60%
2,4,6-Tribromophenol	49%
1,2-Dichlorobenzene-d4	53%
Nitrobenzene-d5	59%
2-Fluorobiphenyl	67%
p-Terphenyl-d14	71%

ND = Not detected

024

MITKEM CORPORATION

Analysis Report: Volatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID: TK4-TB3
Lab ID: D1120-05
Analysis: Method 8260

Analysis Date: 7/19/97
Matrix: Aqueous
Concentration in: ug/L
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5

011

D1120-05

MITKEM CORPORATION

Client ID: TK4-TB3

Lab ID: D1120-05

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE	ND	5
Naphthalene	ND	5

QC Batch: V2B0719A

Surrogate Recovery:	
1,2-Dichloroethane-d4	104%
Toluene-d8	104%
Bromofluorobenzene	103%

012

ND = Not detected

MITKEM CORPORATION

Analysis Report: Volatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Method Blank, V2B0718A
Analysis: Method 8260

Analysis Date: 7/18/97
Matrix: Soil
Concentration in: ug/kg, dry weight basis
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5

013

D1120-ME

MITKEM CORPORATION

Client ID:

Lab ID: Method Blank, V2B0718A

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE	ND	5
Naphthalene	ND	5

Surrogate Recovery:

QC Batch: V2B0718A

1,2-Dichloroethane-d4	97%
Toluene-d8	98%
Bromofluorobenzene	95%

014

ND = Not detected

D1120-MB

MITKEM CORPORATION

Analysis Report: Volatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Method Blank, V2B0719A
Analysis: Method 8260

Analysis Date: 7/19/97
Matrix: Soil
Concentration in: ug/kg, dry weight basis
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5

015

D1120-MB

MITKEM CORPORATION

Client ID:

Lab ID: Method Blank, V2B0719A

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE	ND	5
Naphthalene	ND	5

QC Batch: V2B0719A

Surrogate Recovery:	
1,2-Dichloroethane-d4	103%
Toluene-d8	105%
Bromofluorobenzene	104%

016

ND = Not detected

D1120-MB

MITKEM CORPORATION

Analysis Report: Total Metals

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Prep Blank, 0717PBS1
Analysis Method: 7471A (Mercury)
6010A (Others)

Concentration in: mg/kg
Analysis Date: 7/18/97

Analyte	Results	Reporting Limit
Arsenic	ND	1
Barium	ND	1
Cadmium	ND	0.1
Chromium	ND	1
Lead	ND	1
Mercury	ND	0.3
Selenium	ND	2
Silver	ND	1

QC Batch: 0717PBS1

ND = Not detected

D1120-MB

021

MITKEM CORPORATION

Analysis Report: Total Metals

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Lab control Sample, 0717LCSS1
Analysis Method: 7471A (Mercury)
6010A (Others)

Matrix: Soil

Analysis Date: 7/18/97

Analyte	% Recovery
Arsenic	93
Barium	99
Cadmium	89
Chromium	101
Lead	87
Mercury	73
Selenium	79
Silver	100

QC Batch: 0717PBS1

MITKEM CORPORATION

Analysis Report: Semivolatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Method Blank, S0717-B2
Analysis: Method 8270

Analysis Date: 7/22/97
Matrix: Soil
Concentration in: ug/kg
Dilution: 1

Analyte	Results	Reporting Limits
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
2,2'-oxybis(1-Chloropropane)	ND	330
4-Methylphenol	ND	330
n-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	330
2,4-Dimethylphenol	ND	330
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	830
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	830
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	830
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	830
4-Nitrophenol	ND	830
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330

03

D1120-MB

MITKEM CORPORATION

Client ID:

Lab ID: Method Blank, S0717-B2

Analyte	Results	Reporting Limits
Diethylphthalate	ND	330
Fluorene	ND	330
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	830
4,6-Dinitro-2-methylphenol	ND	830
n-Nitrosodiphenylamine	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	830
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Carbazole	ND	330
Fluoranthene	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
Benzo(a)anthracene	ND	330
Chrysene	ND	330
3,3'-Dichlorobenzidine	ND	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenz(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

QC Batch: S0717-B2

Surrogate Recovery:	
2-Fluorophenol	53%
Phenol-d5	67%
2-Chlorophenol-d4	63%
2,4,6-Tribromophenol	48%
1,2-Dichlorobenzene-d4	61%
Nitrobenzene-d5	60%
2-Fluorobiphenyl	68%
p-Terphenyl-d14	83%

ND = Not detected

032

MITKEM CORPORATION

Analysis Report: Semivolatile Organic Compounds

Lab Control Summary

Client: Foster Wheeler Environmental, Inc.
Lab ID for Blank Spike: S0717-LCS2
Analysis: Method 8270

Matrix: Soil

Analysis Date for Blank Spike: 7/22/97

Analyte	% Recovery
Phenol	73
2-Chlorophenol	71
1,4-Dichlorobenzene	61
n-Nitroso-di-n-propylamine	72
1,2,4-Trichlorobenzene	66
4-Chloro-3-methylphenol	80
Acenaphthene	74
4-Nitrophenol	76
2,4-Dinitrotoluene	83
Pentachlorophenol	65
Pyrene	83

QC Batch: S0717-B2

033

D1120-LCS

MITKEM CORPORATION

Lab Project #: **D1120**
Client Name: **Foster Wheeler**
Client Proj #: **DO# 13F**
Client PO #: **003195**
Project Name: **Tank Farm #4**
Date Due: **7/23/97**
Total Price: **$ -**
Project Mgr: EL
Salesman: PAS
Del Req'd: NA
C mpleted?: YES

Logged In By: MAM
Reviewed By: [signature]
Date: 7-17-97 Time: 11:35

Lab ID	Client ID	Matrix	Analysis	Price	Sampled	Received	TPH	IR	BNA	Herb	P/P	Wet	Met	V-GC	V-MS	Sub
-01	TPTK-44	SL	RCRA 8		7/16/97	7/16/97							1			
			SVOC 8270						1							
			TPH 418.1					1								
			VOC 8260												1	
-02	TPTK-44 DUP	SL	RCRA 8		7/16/97	7/16/97							1			
			SVOC 8270						1							
			TPH 418.1					1								
			VOC 8260												1	
-03	TPTK-39	SL	RCRA 8		7/16/97	7/16/97							1			
			SVOC 8270						1							
			TPH 418.1					1								
			VOC 8260												1	
-04	TPTK-39 DUP	SL	RCRA 8		7/16/97	7/16/97							1			
			SVOC 8270						1							
			TPH 418.1					1								
			VOC 8260												1	
-05	TK4-TB3	AQ	VOC 8260		7/16/97	7/16/97									1	

034

MITKEM CORPORATION
175 Metro Center Boulevard • Warwick, Rhode Island 02886-1755
(401) 732-3400 • Fax (401) 732-3499
1232 East Broadway Road, Suite 210 • Tempe, Arizona 85282
(602 303-9535 • Fax (602) 921-2883

D1120

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

REPORT TO		INVOICE TO		LAB REFERENCE #
COMPANY FOSTER Wheeler	PHONE 842-6940	COMPANY FOSTER Wheeler	PHONE 842-6940	
NAME MARK GOUVEIA	FAX 842-6970	NAME	FAX 842-6970	
ADDRESS P.O. BOX 4749		ADDRESS P.O. BOX 4749		TURNAROUND TIME:
CITY/ST/ZIP MIDDLETOWN RI 02842		CITY/ST/ZIP MIDDLETOWN RI 02842		1 WEEK TAT.

CLIENT PROJECT NAME	CLIENT PROJECT #:	CLIENT P O #.
TANK FARM #4	DO # 13F	063195

REQUESTED ANALYSES

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	VOC'S	SVOC'S	TPH	RCRA 8 METALS	COMMENTS
TPTK-44	7/16/97 1440	✓	✓		✓			3	✓	✓	✓	✓	
TPTK44-DUP	7/16/97 1440	✓	✓		✓			3	✓	✓	✓	✓	
TPTK-39	7/16/97 1400	✓	✓		✓			3	✓	✓	✓	✓	
TPTK-39-DUP	7/16/97 1400	✓	✓		✓			3	✓	✓	✓	✓	
TK4-TB3	/			✓				2	✓				
	/												
	/												
	/												
	/												
	/												
	/												
	/												

TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME
1st	[signature]	7-16-97 / 1600	[signature]	7-16-97 / 1600
2nd		/		/
3rd		/		/

ADDITIONAL REMARKS:

COOLER TEMP:

MITKEM CORPORATION

Sample Condition Form

Received By: MP	Date: 7/16/97	MITKEM Project #: 01120
Client Project Description/Number: Tank Farm #4		Client: Foster Wheeler

Condition:		Lab ID	Client ID	Remarks
1) Custody Seal(s)	Present/Absent	01		
	Intact/Broken	02		
		03		
2) Custody Seal Number(s)	N/A	04		
		05		
3) Chain-of-Custody Record(s)	Present/Absent			
4) Cooler Temperature	4°C			
Coolant Condition	Good			
5) Airbill(s)	Present/Absent			
Airbill Number(s)				
6) Sample Bottles	Intact			
	Broken			
	Leaking			
7) Date Received	7/16/97			
8) Time Received	1500			
9) Project Due Date				

Last Page of Data Report

TANK NO. 44			
SUBSTANCE	RESIDENTIAL	GA	FIELD ANALYTICAL
	(mg/kg)	Leachability	DETECTIONS
		(mg/kg except as	(mg/kg except as
		other wise noted)	otherwise noted)
VOLATILE ORGANICS			
Acetone	7,800		
Benzene	2.5	0.2	
Bromodichloromethane	10		
Bromoform	81		
Bromomethane	0.8		
Carbon tetrachloride	1.5	0.4	
Chlorobenzene	210	3.2	
Chloroform	1.2		
Dibromochloromethane	7.6		
Dibromochloropropane (DBCP)	0.5		
Dichloroethane (1,1-)	920		
Dichloroethane (1,2-)	0.9	0.1	
Dichchloroethylene (1,1-)		0.7	
Dichloroethene (1,1-)	0.2		
Dichloroethylene (cis-1,2,-)		1.7	
Dichloroethene (cis-1,2-)	630		
Dichloroethylene (trans-1,2-)		3.3	
Dichloroethene (trans-1,2-)	1,100		
Dichloropropane (1,2)	1.9	0.1	
Ethyl benzene	71	27	
Ethylene dibromode (EDB)	0.01	5.00E-04	
Isopropyl benzene	27		
Methyl ethyl ketone	10,000		
Methyl isobutyl ketone	1200		
Methyl-tert-butyl-ether	390	0.9	
Methylene chloride	45		
Styrene	13	2.9	
Tetrachloroethane,1,1,1,2	2.2		
Tetrachloroethane,1,1,2,2	1.3		
Tetrachloroethylene	12	0.1	
Toluene	190	32	
Trichloroethane,1,1,1-	540	11	
Trichloroethane,1,1,2-	3.6	0.1	
Trichloroethylene	13	0.2	
Vinyl chlonde	0.02	0.3	
Xylenes		540	
Xylenes (total)	110		
SEMIVOLATILES			
Acenaphthene	43		
Acenaphthylene	23		
Anthracene	35		
Benzo(a)anthracene	0 9		

Benzo(a)pyrene	0.4	240	
Benzo(b)fluoranthene	0.9		
Benzo(g,h,i)perylene	0.8		
Benzo(k)fluoranthene	0.9		
Biphenyl,1,1-	0.8		
Bis(2-ethylhexyl)phthalate	46		
Bis(2-chloroethyl)ether	0.6		
Bis(2-chloroisipropyl)ether	9.1		
Chloroaniline, 4- (p-)	310		
Chlorophenol, 2-	50		
Chrysene	0.4		
Dibenzo(a,h)anthracene	0.4		
Dichlorobenzene (all isomers)			
Dichlorobenzene, 1,2- (o-DCB)	510	41	
Dichlorobenzene, 1,2- (o-DCB)	430		
Dichlorobenzene, 1,4- (p-DCB)	27		
Dichlorobenzidine, 3,3-	1.4		
Dichlorophenol, 2,4-	30		
Diethlhexyl phthalate			
Diethyl phthalate	340	120	
Dimethyl phenol, 2,4-	1,400		
Dimethyl phthalate	1,900		
Dinitrophenol, 2,4-	160		
Dinitrotoluene, 2,4-	0.9		
Fluoranthene	20		
Fluorene	28		
Hexachlorobenzene	0.4		
Hexachlorobutadiene	8.2		
Hexachloroethane	46		
Ideno(1,2,3-cd)pyrene	0.9		
Methyl naphthalene, 2-	123		
Naphthalene	54		
Pentachlorophenol	5.3	0.8	
Phenanthrene	40	7.1	
Phenol	6,000		
Pyrene	13		
Trichlorobenzene, 1,2,4-	96		
Trichlorophenol, 2,4,5-	330	140	
Trichlorophenol, 2,4,6-	58		
PESTCIDES/PCBs			
Chlorodane	0.5		
Dieldnn	0.04	1.4	
Polychlorinated biphenyls (PCBs)	10		
INORGANICS		10	
Antimony	10		
Arsenic	1.7	0.05	9
Barium	5,500		18
Beryllium	0.40	23	
Cadmium	39	0.03	0.6

Chromium		0.03	15
Chromium III (Trivalent)	1,400	1.1	
Chromium VI (Hexavalent)	390		
Copper	3,100		
Cyanide	200		
Lead	150	2.4	11
Manganese	390	0.04	
Mercury	23		
Nickel	1,000	0.02	
Selenium	390	1	
Silver	200	0.6	
Thallium	5.5		
Vanadium	550	0.005	
Zinc	6,000		
TPH	500	500	

July 24, 1997

Foster Wheeler Environmental Corp.
Attn: Mr. Mark Gouveia
P.O. Box 4749
Middletown, RI 02842

RE: Client Project #DO# 13F, Tank Farm #4
Lab Project #D1120

Dear Mr. Gouveia:

Enclosed please find the data report of the required analyses for the samples associated with the above referenced project. If you have any questions regarding this report, please call me.

We appreciate your business.

Sincerely,

Edward A. Lawler
Laboratory Operations Manager

175 Metro Center Boulevard • Warwick, Rhode Island 02886-1755 • (401) 732-3400 Fax (401) 732-34
1232 East Broadway Road, Suite 210 • Tempe, Arizona 85282 • (602) 303-9535 • Fax (602) 921-288
email: mitkem19@mail.idt.net

Client: Foster Wheeler Environmental Corp.

Client Project: D)# 13F, Tank Farm #4

Lab Project: D1120

Date samples received: 7/16/97

Project Narrative

This data report includes the analysis results for one (1) aqueous sample and four (4) soil samples that were received from the Tank Farm #4 site from Foster Wheeler Environmental Corp. on July 16, 1997. Analyses were performed per specification in the Chain of Custody form. For reference, a copy of the Mitkem Sample Log-In form is included for cross-referencing the client sample ID and laboratory sample ID.

All of the analyses were performed according to method specifications. No unusual observation was made for the analyses.

This data report has been reviewed and is authorized for release as evidenced by the signature below.

Edward A. Lawler
Laboratory Operations Manager

Analysis Report: Total Petroleum Hydrocarbons

Client: Foster Wheeler Environmental, Inc.
Analysis: Method 418.1
Matrix: Soil
Concentration in: mg/kg, dry weight basis

Lab ID	Client ID	Result	Reporting Limit	% Solid	Analysis Date
D1120-01	TPTK-44	ND	24	92	7/23/97
D1120-02	TPTK-44 Dup	ND	24	92	7/23/97
D1120-03	TPTK-39	ND	23	95	7/23/97
D1120-04	TPTK-39 Dup	ND	23	94	7/23/97

QA/QC			
Method Blank			
I0722-B1	ND	22	7/23/97
Lab Control Spike (% Recovery)			
I0722-LCS1	111		7/23/97

ND = Not Detected

Analysis Report: Volatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID: TPTK-44 Dup
Lab ID: D1120-02
Analysis: Method 8260

Analysis Date: 7/18/97
Matrix: Soil, 94% solids
Concentration in: ug/kg, dry weight basis
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5

005

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE	ND	5
Naphthalene	ND	5

QC Batch: V2B0718A

Surrogate Recovery:	
1,2-Dichloroethane-d4	100%
Toluene-d8	97%
Bromofluorobenzene	88%

ND = Not detected

006

Analysis Report: Total Metals

Client: Foster Wheeler Environmental Corp.
Client ID: TPTK-44 Dup
Lab ID: D1120-02
Analysis Method: 7471A (Mercury)
6010A (Others)

Matrix: Soil, 92% Solids
Concentration in: mg/kg, dry weight basis
Analysis Date: 7/18/97

Analyte	Results	Reporting Limit
Arsenic	9	1
Barium	16	1
Cadmium	0.6	0.1
Chromium	14	1
Lead	10	1
Mercury	ND	0.3
Selenium	ND	2
Silver	ND	1

QC Batch: 0717PBS1

ND = Not detected

Analysis Report: Semivolatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID: TPTK-44 Dup
Lab ID: D1120-02
Analysis: Method 8270

Analysis Date: 7/22/97
Matrix: Soil, 92% solids
Concentration in: ug/kg, dry weight basis
Dilution: 1

Analyte	Results	Reporting Limits
Phenol	ND	360
bis(2-Chloroethyl)ether	ND	360
2-Chlorophenol	ND	360
1,3-Dichlorobenzene	ND	360
1,4-Dichlorobenzene	ND	360
1,2-Dichlorobenzene	ND	360
2-Methylphenol	ND	360
2,2'-oxybis(1-Chloropropane)	ND	360
4-Methylphenol	ND	360
n-Nitroso-di-n-propylamine	ND	360
Hexachloroethane	ND	360
Nitrobenzene	ND	360
Isophorone	ND	360
2-Nitrophenol	ND	360
2,4-Dimethylphenol	ND	360
bis(2-Chloroethoxy)methane	ND	360
2,4-Dichlorophenol	ND	360
1,2,4-Trichlorobenzene	ND	360
Naphthalene	ND	360
4-Chloroaniline	ND	360
Hexachlorobutadiene	ND	360
4-Chloro-3-methylphenol	ND	360
2-Methylnaphthalene	ND	360
Hexachlorocyclopentadiene	ND	360
2,4,6-Trichlorophenol	ND	360
2,4,5-Trichlorophenol	ND	900
2-Chloronaphthalene	ND	360
2-Nitroaniline	ND	900
Dimethylphthalate	ND	360
Acenaphthylene	ND	360
2,6-Dinitrotoluene	ND	360
3-Nitroaniline	ND	900
Acenaphthene	ND	360
2,4-Dinitrophenol	ND	900
4-Nitrophenol	ND	900
Dibenzofuran	ND	360
2,4-Dinitrotoluene	ND	360

025

Client ID: TPTK-44 Dup

Lab ID: D1120-02

Analyte	Results	Reporting Limits
Diethylphthalate	ND	360
Fluorene	ND	360
4-Chlorophenyl-phenylether	ND	360
4-Nitroaniline	ND	900
4,6-Dinitro-2-methylphenol	ND	900
n-Nitrosodiphenylamine	ND	360
4-Bromophenyl-phenylether	ND	360
Hexachlorobenzene	ND	360
Pentachlorophenol	ND	900
Phenanthrene	93 J	360
Anthracene	ND	360
Di-n-butylphthalate	ND	360
Carbazole	ND	360
Fluoranthene	130 J	360
Pyrene	100 J	360
Butylbenzylphthalate	ND	360
Benzo(a)anthracene	43 J	360
Chrysene	45 J	360
3,3'-Dichlorobenzidine	ND	360
bis(2-Ethylhexyl)phthalate	ND	360
Di-n-octylphthalate	ND	360
Benzo(b)fluoranthene	51 J	360
Benzo(k)fluoranthene	ND	360
Benzo(a)pyrene	37 J	360
Indeno(1,2,3-cd)pyrene	ND	360
Dibenz(a,h)anthracene	ND	360
Benzo(g,h,i)perylene	ND	360

QC Batch: S0717-B2

Surrogate Recovery:	
2-Fluorophenol	51%
Phenol-d5	63%
2-Chlorophenol-d4	61%
2,4,6-Tribromophenol	52%
1,2-Dichlorobenzene-d4	56%
Nitrobenzene-d5	63%
2-Fluorobiphenyl	72%
p-Terphenyl-d14	73%

ND = Not detected

026

Analysis Report: Volatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID: TK4-TB3
Lab ID: D1120-05
Analysis: Method 8260

Analysis Date: 7/19/97
Matrix: Aqueous
Concentration in: ug/L
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5

011

D1120-05

Analyte	Results	R porting Limits
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE	ND	5
Naphthalene	ND	5

QC Batch: V2B0719A

Surrogate Recovery:	
1,2-Dichloroethane-d4	104%
Toluene-d8	104%
Bromofluorobenzene	103%

ND = Not detected

01

D1120-05

Analysis Report: Volatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Method Blank, V2B0718A
Analysis: Method 8260

Analysis Date: 7/18/97
Matrix: Soil
Concentration in: ug/kg, dry weight basis
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5

013

D1120-MB

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropen	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE	ND	5
Naphthalene	ND	5

QC Batch: V2B0718A

Surrogate Recovery:	
1,2-Dichloroethane-d4	97%
Toluene-d8	98%
Bromofluorobenzene	95%

01

ND = Not detected

Analysis Report: Volatile Organic Compounds

Client: Foster Wheeler Environm ntal Corp.
Client ID:
Lab ID: Method Blank, V2B0719A
Analysis: Method 8260

Analysis Date: 7/19/97
Matrix: Soil
Concentration in: ug/kg, dry weight basis
Dilution: 1

Analyte	Results	Reporting Limits
Dichlorodifluoromethane	ND	5
Chloromethane	ND	5
Vinyl chloride	ND	5
Bromomethane	ND	5
Chloroethane	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
Carbon disulfide	ND	5
Iodomethane	ND	5
Acetone	ND	5
Methylene chloride	ND	5
trans-1,2-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
Vinyl acetate	ND	5
2,2-Dichloropropane	ND	5
cis-1,2-Dichloroethene	ND	5
Methyl ethyl ketone	ND	5
Bromochloromethane	ND	5
Chloroform	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
1,1-Dichloropropene	ND	5
Benzene	ND	5
1,2-Dichloroethane	ND	5
Trichloroethene	ND	5
1,2-Dichloropropane	ND	5
Dibromomethane	ND	5
Bromodichloromethane	ND	5
2-Chloroethyl vinyl ether	ND	5
cis-1,3-Dichloropropene	ND	5
4-Methyl-2-pentanone	ND	5
Toluene	ND	5

015

D1120-MB

Client ID:

Analyte	Results	Reporting Limits
trans-1,3-Dichloropropene	ND	5
1,1,2-Trichloroethane	ND	5
Tetrachloroethene	ND	5
1,3-Dichloropropane	ND	5
2-Hexanone	ND	5
Dibromochloromethane	ND	5
1,2-Dibromoethane (EDB)	ND	5
Chlorobenzene	ND	5
1,1,1,2-Tetrachloroethane	ND	5
Ethylbenzene	ND	5
Xylenes, total	ND	5
Styrene	ND	5
Bromoform	ND	5
Isopropylbenzene	ND	5
Bromobenzene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,2,3-Trichloropropane	ND	5
n-Propylbenzene	ND	5
2-Chlorotoluene	ND	5
4-Chlorotoluene	ND	5
1,3,5-Trimethylbenzene	ND	5
tert-Butylbenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
sec-Butylbenzene	ND	5
1,3-Dichlorobenzene	ND	5
4-Isopropyltoluene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
n-Butylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	5
1,2,4-Trichlorobenzene	ND	5
Hexachlorobutadiene	ND	5
1,2,3-Trichlorobenzene	ND	5
MTBE	ND	5
Naphthalene	ND	5

QC Batch: V2B0719A

Surrogate Recovery	
1,2-Dichloroethane-d4	103%
Toluene-d8	105%
Bromofluorobenzene	104%

016

ND = Not detected

D1120-MB

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Prep Blank, 0717PBS1
Analysis Method: 7471A (Mercury)
6010A (Others)

Concentration in: mg/kg
Analysis Date: 7/18/97

Analyte	Results	Reporting Limit
Arsenic	ND	1
Barium	ND	1
Cadmium	ND	0.1
Chromium	ND	1
Lead	ND	1
Mercury	ND	0.3
Selenium	ND	2
Silver	ND	1

QC Batch: 0717PBS1

ND = Not detected

Analysis Report: Total Metals

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Lab control Sample, 0717LCSS1
Analysis Method: 7471A (Mercury)
6010A (Others)

Matrix: Soil

Analysis Date: 7/18/97

Analyte	% Recovery
Arsenic	93
Barium	99
Cadmium	89
Chromium	101
Lead	87
Mercury	73
Selenium	79
Silver	100

QC Batch: 0717PBS1

Analysis Report: Semivolatile Organic Compounds

Client: Foster Wheeler Environmental Corp.
Client ID:
Lab ID: Method Blank, S0717-B2
Analysis: Method 8270

Analysis Date: 7/22/97
Matrix: Soil
Concentration in: ug/kg
Dilution: 1

Analyte	Results	Reporting Limits
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
2,2'-oxybis(1-Chloropropane)	ND	330
4-Methylphenol	ND	330
n-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	330
2,4-Dimethylphenol	ND	330
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	830
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	830
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	830
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	830
4-Nitrophenol	ND	830
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330

031

D1120-MB

Client ID: Lab ID: Method Blank, S0717-B2

Analyte	Results	Reporting Limits
Diethylphthalate	ND	330
Fluorene	ND	330
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	830
4,6-Dinitro-2-methylphenol	ND	830
n-Nitrosodiphenylamine	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	830
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Carbazole	ND	330
Fluoranthene	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
Benzo(a)anthracene	ND	330
Chrysene	ND	330
3,3'-Dichlorobenzidine	ND	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenz(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

QC Batch: S0717-B2

Surrogate Recovery:	
2-Fluorophenol	53%
Phenol-d5	67%
2-Chlorophenol-d4	63%
2,4,6-Tribromophenol	48%
1,2-Dichlorobenzene-d4	61%
Nitrobenzene-d5	60%
2-Fluorobiphenyl	68%
p-Terphenyl-d14	83%

ND = Not detected

032

Analysis Report: Semivolatile Organic Compounds

Lab Control Summary

Client: Foster Wheeler Environmental, Inc.
Lab ID for Blank Spike: S0717-LCS2
Analysis: Method 8270

Matrix: Soil

Analysis Date for Blank Spike: 7/22/97

Analyte	% Recovery
Phenol	73
2-Chlorophenol	71
1,4-Dichlorobenzene	61
n-Nitroso-di-n-propylamine	72
1,2,4-Trichlorobenzene	66
4-Chloro-3-methylphenol	80
Acenaphthene	74
4-Nitrophenol	76
2,4-Dinitrotoluene	83
Pentachlorophenol	65
Pyrene	83

QC Batch: S0717-B2

033

MITKEM CORPORATION

Lab Project #: **D1120**
Client Name: Foster Wheeler
Client Proj #: DO# 13F
Client PO #: 003195
Project Name: Tank Farm #4
Date Due: 7/23/97
Total Price: $ -
Project Mgr: EL
Salesman: PAS
Del Req'd: NA
Completed?: YES

Logged In By: MAM
Reviewed By: [illegible]
Date: 7-17-97 Time: [illegible]

Lab ID	Client ID	Matrix	Analysis	Price	Sampled	Received	TPH	IR	BNA	Herb	P/P	Wet	Met	V-G
-01	TPTK-44	SL	RCRA 8		7/16/97	7/16/97							1	
			SVOC 8270						1					
			TPH 418.1					1						
			VOC 8260											
-02	TPTK-44 DUP	SL	RCRA 8		7/16/97	7/16/97							1	
			SVOC 8270						1					
			TPH 418.1					1						
			VOC 8260											
-03	TPTK-39	SL	RCRA 8		7/16/97	7/16/97							1	
			SVOC 8270						1					
			TPH 418.1					1						
			VOC 8260											
-04	TPTK-39 DUP	SL	RCRA 8		7/16/97	7/16/97							1	
			SVOC 8270						1					
			TPH 418.1					1						
			VOC 8260											
-05	TK4-TB3	AQ	VOC 8260		7/16/97	7/16/97								

034

MITKEM CORPORATION
175 Metro Center Boulevard • Warwick, Rhode Island 02886-1755
(401) 732-3400 • Fax (401) 732-3499
1232 East Broadway Road, Suite 210 • Tempe, Arizona 85282
(602 303-9535 • Fax (602) 921-2883

D1120

CHAIN-OF-CUSTODY RECORD

Page ____ o

REPORT TO		INVOICE TO	
COMPANY FOSTER Wheeler	PHONE 842-6940	COMPANY FOSTER Wheeler	PHONE 842-6940
NAME MARK GOUVEIA	FAX 842-6970	NAME	FAX 842-6970
ADDRESS P.O. BOX 4749		ADDRESS P.O. BOX 4749	
CITY/ST/ZIP MIDDLETOWN RI 02842		CITY/ST/ZIP MIDDLETOWN RI 02842	

LAB I

TURN

1 W

CLIENT PROJECT NAME	CLIENT PROJECT #.	CLIENT P O #:
TANK FARM #4	DO # 13F	063195

REQUESTED ANALYSES

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	VOC's	SVOC's	TPH	RCRA 8 METALS	CO
TPTK-44	7/16/97 1440	✓	✓		✓			3	✓	✓	✓	✓	
TPTK-44-DUP	7/16/97 1440	✓	✓		✓			3	✓	✓	✓	✓	
TPTK-39	7/16/97 1400	✓	✓		✓			3	✓	✓	✓	✓	
TPTK-39-DUP	7/16/97 1400	✓	✓		✓			3	✓	✓	✓	✓	
TK4-TB3	/			✓				2	✓				
	/												
	/												
	/												
	/												
	/												
	/												
	/												

TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME
1st	[signature]	7-16-97 / 1600	[signature]	7-16-97 / 1600
2nd	/	/		/
3rd		/		/

ADDITIONAL REMARKS:

MITKEM CORPORATION
Sample Condition Form

Received By: MP	Date: 7/16/97	MITKEM Project #: 01120
Client Project Description/Number: Tank Farm #4		Client: Foster Wheeler

Condition:		Lab ID	Client ID	Remarks
1) Custody Seal(s)	Present/Absent	01		
	Intact/Broken	02		
		03		
2) Custody Seal Number(s)	N/A	04		
		05		
3) Chain-of-Custody Record(s)	Present/Absent			
4) Cooler Temperature	4°C			
Coolant Condition	Good			
5) Airbill(s)	Present/Absent			
Airbill Number(s)				
6) Sample Bottles	Intact			
	Broken			
	Leaking			
7) Date Received	7/16/97			
8) Time Received	1500			
9) Project Due Date				

Last Page of Data Report

TANK NO. 44 DUP.

SUBSTANCE	RESIDENTIAL (mg/kg)	GA Leachability (mg/kg except as other wise n ted)	FIELD ANALYTICAL DETECTIONS (mg/kg except as otherwis noted)
VOLATILE ORGANICS			
Acetone	7,800		
Benzene	2.5	0.2	
Bromodichloromethane	10		
Bromoform	81		
Bromomethane	0.8		
Carbon tetrachloride	1.5	0.4	
Chlorobenzene	210	3.2	
Chloroform	1.2		
Dibromochloromethane	7.6		
Dibromochloropropane (DBCP)	0.5		
Dichloroethane (1,1-)	920		
Dichloroethane (1,2-)	0.9	0.1	
Dichchloroethylene (1,1-)		0.7	
Dichloroethene (1,1-)	0.2		
Dichloroethylene (cis-1,2,-)		1.7	
Dichloroethene (cis-1,2-)	630		
Dichloroethylene (trans-1,2-)		3.3	
Dichloroethene (trans-1,2-)	1,100		
Dichloropropane (1,2)	1.9	0.1	
Ethyl benzene	71	27	
Ethylene dibromode (EDB)	0.01	5.00E-04	
Isopropyl benzene	27		
Methyl ethyl ketone	10,000		
Methyl isobutyl ketone	1200		
Methyl-tert-butyl-ether	390	0.9	
Methylene chloride	45		
Styrene	13	2.9	
Tetrachloroethane,1,1,1,2	2.2		
Tetrachloroethane,1,1,2,2	1.3		
Tetrachloroethylene	12	0.1	
Toluene	190	32	
Trichloroethane,1,1,1-	540	11	
Trichloroethane,1,1,2-	3.6	0.1	
Trichloroethylene	13	0.2	
Vinyl chloride	0.02	0.3	
Xylenes		540	
Xylenes (total)	110		
SEMIVOLATILES			
Acenaphthene	43		
Acenaphthylene	23		
Anthracene	35		
Benzo(a)anthracene	0.9		43(PPB)

Benzo(a)pyrene	0.4	240	31(PPB)
Benzo(b)fluoranthene	0.9		51(PPB)
Benzo(g,h,i)perylene	0.8		
Benzo(k)fluoranthene	0.9		
Biphenyl,1,1-	0.8		
Bis(2-ethylhexyl)phthalate	46		
Bis(2-chloroethyl)ether	0.6		
Bis(2-chloroisipropyl)ether	9.1		
Chloroaniline, 4- (p-)	310		
Chlorophenol, 2-	50		
Chrysene	0.4		45(PPB)
Dibenzo(a,h)anthracene	0.4		
Dichlorobenzene (all isomers)			
Dichlorobenzene, 1,2- (o-DCB)	510	41	
Dichlorobenzene, 1,2- (o-DCB)	430		
Dichlorobenzene, 1,4- (p-DCB)	27		
Dichlorobenzidine, 3,3-	1.4		
Dichlorophenol, 2,4-	30		
Diethlhexyl phthalate			
Diethyl phthalate	340	120	
Dimethyl phenol, 2,4-	1,400		
Dimethyl phthalate	1,900		
Dinitrophenol, 2,4-	160		
Dinitrotoluene, 2,4-	0.9		
Fluoranthene	20		130(PPB)
Fluorene	28		
Hexachlorobenzene	0.4		
Hexachlorobutadiene	8.2		
Hexachloroethane	46		
Ideno(1,2,3-cd)pyrene	0.9		
Methyl naphthalene, 2-	123		
Naphthalene	54		
Pentachlorophenol	5.3	0.8	
Phenanthrene	40	7.1	93(PPB)
Phenol	6,000		
Pyrene	13		100(PPB)
Trichlorobenzene, 1,2,4-	96		
Trichlorophenol, 2,4,5-	330	140	
Trichlorophenol, 2,4,6-	58		
PESTCIDES/PCBs			
Chlorodane	0.5		
Dieldrin	0.04	1.4	
Polychlorinated biphenyls (PCBs)	10		
INORGANICS		10	
Antimony	10		
Arsenic	1.7	0.05	9
Barium	5,500		16
Beryllium	0.40	23	
Cadmium	39	0.03	0.6

Chromium		0.03	14
Chromium III (Trivalent)	1,400	1.1	
Chromium VI (Hexavalent)	390		
Copper	3,100		
Cyanide	200		
Lead	150	2.4	10
Manganese	390	0.04	
Mercury	23		
Nickel	1,000	0.02	
Selenium	390	1	
Silver	200	0.6	
Thallium	5.5		
Vanadium	550	0.005	
Zinc	6,000		
TPH	500	500	

APPENDIX K
BLAST REPORT

NORTHAMERICAN INDUSTRIAL SERVICES

INDUSTRIAL EXPLOSIVES • WATER BLASTING • VACUUM TRUCK SERVICES

BLAST REPORT

DATE: 11-20-97 BLAST TIME: 13:29

CUSTOMER: Foster Wheeler Env. Corp JOB # 9800-005
PROJECT LOCATION: Tank Farm #4, 4000T DeFeuse Highway, Portsmouth,
SPECIFIC BLAST LOCATION: Tank # 44
BLASTER: Jim McAlinden BLASTERS LIC # 87-36
TYPE OF PROJECT: Tank Demolition
TYPE OF MATERIAL BLASTED: Concrete
WEATHER INFO: SKY Clear TEMP 50 WIND SP & DIR 20-W

DRILL HOLE INFO: HOLE SIZE: 1 3/8" NO. HOLES 360 NO. ROWS 6
DEPTH RANGE: 15" FT. TO 18" FT.
SUB DRILL 0 FT. BURDEN 1 FT SPACING 1.5 FT.

DISTANCE TO NEAREST STRUCTURE: 500+ FT.

EXPLOSIVE INFO: TOTAL OF EXPLOSIVES USED 260.5 LBS.
BRAND AND TYPE ICI Power Ditch
MIN. LBS/HOLE .5 MAX. LBS/HOLE 1
MAX. LBS/DELAY 22 DECK ___ SOLID ✓ STEMMIN 4"

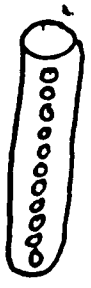
INITIATION: BRAND/TYPE ICI Nonel NO. CAPS USED 356
NO. DELAY USED 16 DELAY INTERVALS 25 mm
TOTAL TIME FOR INITIATION 400 ms

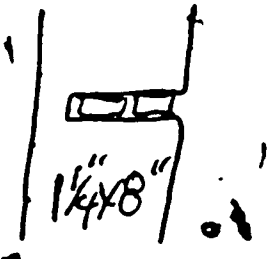
PRIMACORD: NO. OF FT. 100 SHOT LINE 0 FT.

CONTROL: QUANTITY DISTANCE DS. ___ SEISMIC ✓ FT.
MATS USED? No Backfill

SHOT PLAN: (SHOW DIRECTION) CROSS SECTION

Stray Current - None





NorthAmerican Industrial Services, Inc.
1240 Saratoga Road, Ballston Spa, New York 12020

518-885-1820
FAX 518-885-7638

EXPLOSIVE LOAD LIST NORTHAMERICAN INDUSTRIAL SERVICES

DATE 11/20/97 LOCATION Rd Foster Wheeler JOB# 9800-005

Powerdetch 1000 EXPLOSIVES

68 sticks

TYPE	LOT NUMBER	QTY OUT	QTY IN	QTY USED
1¼x8	010C97	84.5 lbs.	84.5	0
68 "	150CT97	294 lbs	33 1/3	260.5
DETCORD	310CT97	884 FT	784 FT	100

DETONATORS

TYPE	LOT NUMBER	QTY OUT	QTY IN	QTY USED
inst	06MY97	36	32	4
1	080C97R2	28	6	22
2	030C97R2	"	"	"
3	100C97R2	"	"	"
4	09SE97R2	"	"	"
5	16SE97R2	"	"	"
6	09SE97R2	"	"	"
7	030C97R2	"	"	"
8	10SE97R2	"	"	"
9	05AU97R2	"	"	"
10	070C97R2	"	"	"
11	110CT97R2	"	"	"
12	15SE97R2	"	"	"
13	25MA97R2	48	26	22
14	130C97R2	"	6	22
15	17MY97R2	48 35	13	22
16	17SE97R2	48 35	13	22
	14MA95R2	35	13	22

NORTHAMERICAN INDUSTRIAL SERVICES

INDUSTRIAL EXPLOSIVES • WATER BLASTING • VACUUM TRUCK SERVICES

N.A.I.S.

Shipping Papers

Date 11/20/97

Drivers Name [illegible]

Drivers Signature [illegible]

Destination: NAIS
1240 SARATOGA RD
BALLSTON SPA
NY 12020

From: TANK FARM #4
PORTSMOUTH R.I.

Route to job site:

MOST SAFE AND DIRECT ROUTE

No. of boxes	HM	Description of articles and exceptions	Hazard Class	I.D. Number	Group Packing	Weight	Class or Rate	Labels Required (or exemption)	C co
17	✓	ELECTRIC CAPS	1.1D	0255	"	.5 LB	"A"	YES 172.631-4	
1	✓	DETONATING CORD	1.1D	0289	"	8 LBS.	"A"	YES 172.631-4	
3		DYNAMITE / POWER OTTER	1.1D	0081	"	1 LB EA	"A"	YES 172.631-4	

This is to certify that the above-named materials are properly classified, described, packed, marked and labeled / placarded and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Per [illegible] Placards Required YES Placards supplied (YES) / NO

Drivers Signature [illegible]

EMERGENCY RESPONSE TELEPHONE NUMBER (800) 424-9300

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1240 Saratoga Road, Ballston Spa, New York 12020

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