ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC

ROUX

1377 MOTOR PARKWAY
ISLANDIA, NEW YORK 11788
TEL 516 232-2600 FAX 516 232-9898

July 16, 1999

Anthony J. Sigona, P.E.
Environmental Engineer I
Division of Environmental Remediation
New York State Department of Environmental Conservation
47-40 21st Street, 2nd Floor
Long Island City, New York 11101

Re: Final Report Titled, "Closure Report for OU-4
Former Vehicle Fueling Area USTs, Queens, New York"
National Railroad Passenger Corporation, Queens, New York

Dear Mr. Sigona:

Please find enclosed one copy of the final report titled "Closure Report for OU-4 Former Vehicle Fueling Area USTs, Queens, New York", which has been prepared for the National Railroad Passenger Corporation (Amtrak). In addition, please find the supporting analytical results under separate cover. As specified in the report, three USTs have been properly closed following local and state requirements.

If you have any comments or questions, please do not hesitate to call.

Sincerely,

REMEDIAL ENGINEERING, P.C.

William G. Fisher

William G. Fisher, P.E.
Senior Engineer

Attachments

cc: Richard Mohlenhoff, P.E., Amtrak (2 copies)
Hari Agrawal, P.E., NYSDEC (1 copy)
Joseph D. Duminuco, Roux Associates, Inc. (1 copy)
Peter J. Gerbasi, P.E., Remedial Engineering, P.C. (letter only)
Omar Ramotar, Roux Associates, Inc. (1 copy)

AM05528Y02.137/CL

CLOSURE REPORT FOR OU-4
FORMER VEHICLE FUELING AREA USTS

Sunnyside Yard
Queens, New York

July 16, 1999

Prepared for:

National Railroad Passenger Corporation
400 West 31st Street
New York, New York 10001

Prepared by:

REMEDIAL ENGINEERING, P.C.
1377 Motor Parkway
Islandia, New York 11788

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TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

Roux Associates, Inc. (Roux Associates) has completed the abandonment of the three former vehicle fueling area underground storage tanks (USTs), designated as VFA 001, VFA 002, and VFA 003, at the National Railroad Passenger Corporation (Amtrak), Sunnyside Yard, Queens, New York (Yard) (Figure 1). The UST abandonment program was performed from December 14, 1998 through January 6, 1999, in accordance with the September 30, 1997 compliance plan titled, "Underground Storage Tank Compliance Plan for OU-4" (Roux Associates, 1997) (Compliance Plan). This closure report is being submitted in accordance with Section 3.9 of the Compliance Plan.

The objectives of the Compliance Plan were to:

- establish the compliance requirements for a 20,000-gallon, single wall steel UST used to store No. 2 fuel oil in the boiler house area;
- remove the UST located near R-Tower, which had been identified as containing residual fuel oil;
- remove the UST in the oil-water separator area, which had been identified to have a capacity of 2,000 gallons; and
- abandon in place three 750-gallon active single wall steel gasoline USTs installed in series, located in the former vehicle fueling area.

The first three objectives were previously met, and were specifically addressed in the March 11, 1998 closure report titled "UST Closure Report for OU-4 R-Tower UST and Oil-Water Separator Area UST" (Roux Associates, 1998). The fourth objective has also been met in accordance with the Compliance Plan and is addressed in this closure report. Specifically, the three 750-gallon gasoline USTs located in the former vehicle fueling area were abandoned in place.

Where applicable, the UST abandonment tasks were conducted in accordance with the following:

- United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 280, Technical Standards and Corrective Action Requirements for Owners and Operators of USTs;
- New York State Department of Environmental Conservation (NYSDEC) Division of Water Regulations, Title 6 New York State Codes of Rules and Regulations (NYCRR) Part 612, Registration of Petroleum Storage Facilities;

- NYSDEC Division of Water Regulations Handling and Storage of Petroleum (6 NYCRR Part 613);
- NYSDEC Spill Technology and Remediation Series (Memo #1), Petroleum-Contaminated Soil Guidance Policy, August 1992 (STARS);
- NYSDEC Spill Prevention Operation Technology Series (No. 14), Site Assessment at Bulk Storage Facilities, May 15, 1991 (SPOTS);
- Removal and Disposal of Used Underground Petroleum Storage Tanks, American Petroleum Institute Recommended Practice 1604 (1987);
- A Guide to the Assessment and Remediation of Underground Petroleum Releases, American Petroleum Institute Recommended Practice 1628 (1987);
- Petroleum Bulk Storage Application Pursuant to the Petroleum Bulk Storage Law (Article 17, Title 10 of Environmental Conservation Law; 6 NYCRR Parts 612 through 614 and 6 NYCRR Subpart 380-14);
- NYSDEC Division Technical and Administrative Guidance Memorandum on Determination of Soil Cleanup Objectives and Cleanup Levels, January 24, 1994 (TAGM);
- NYSDEC Division of Water Technical and Operation Guidance Series (1.1.1) Ambient Water Quality Standards & Guidance Values, October 1993 (TOGs); and
- Roux Associates' Standard Operating Procedures.

A brief discussion of pertinent background information is provided in Section 2.0. A summary of the scope of work for the abandonment of the vehicle fueling area gasoline USTs is presented in Section 3.0. The results of the abandonment of the vehicle fueling area gasoline USTs, including waste characterization and post-excavation soil sampling are provided in Section 4.0. A summary of the findings is provided in Section 5.0. The references cited in this closure report are provided in Section 6.0.

2.0 YARD BACKGROUND

The Yard is located at 39-29 Honeywell Street in Queens County, New York (Figure 1). The Yard is listed as a Class 2 Site in the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites. As a result of the listing, Amtrak, New Jersey Transit Corporation (NJTC), and the NYSDEC entered into an Order on Consent (OOC) Index #W2-0081-87-06 effective October 1989.

In accordance with the OOC, several investigations have been performed at the Yard including, but not limited to, remedial investigations, feasibility studies, and a risk assessment. Each of these investigations was performed by Roux Associates. As a result of these investigations, areas of the Yard were identified where levels of contamination require remedial efforts. With the NYSDEC's concurrence, to address remedial efforts sitewide in a timely and orderly manner, the Yard has been subdivided into six operable units (Figure 2). The operable units are described as follows:

- Operable Unit 1 (OU-1) designated as the soil above the water table within the footprint of the proposed HSTF S&I Building;
- Operable Unit 2 (OU-2) designated as the soil above the water table within the footprint of the HSTF S&I Building ancillary structures (i.e., the access road and utilities route, the parking area, the construction easement area which surrounds the building, and the construction lay down area);
- Operable Unit 3 (OU-3) designated as the soil and separate-phase petroleum accumulation above the water table in Area 1 of the Yard, as defined in the Phase I Remedial Investigation (RI) report;
- Operable Unit 4 (OU-4) designated as the soil above the water table in the remainder of the Yard;
- Operable Unit 5 (OU-5) designated as the sewer system beneath the Yard; and
- Operable Unit 6 (OU-6) designated as the ground water including the saturated soil beneath the Yard.

Based on an evaluation of the Yard conditions, the NYSDEC and the New York State Department of Health (NYSDOH) issued the following NYSDEC-recommended soil cleanup levels for the contaminants of concern at the Yard:

- semivolatile organic compounds (SVOCs) - 25 parts per million (ppm) for both surface and subsurface soil for total carcinogenic polycyclic aromatic hydrocarbons (cPAHs);
- lead - 1,000 ppm for both surface and subsurface soil; and
- polychlorinated biphenyls (PCBs) - 25 ppm for both surface and subsurface soil.

They further acknowledged that while certain metals were found in soils throughout the Yard above the NYSDEC's Recommended Soil Cleanup Objectives (RSCOs), none (with the exception of lead) were present at levels high enough to require any remediation. Additionally, NYSDEC-recommended soil cleanup levels for volatile organic compounds (VOCs) were not specified since none were detected at the Yard above the RSCOs.

Although this scope of work pertains to UST compliance, the work was performed in OU-4. As such, the sampling and analysis provided data for both the characterization of the existing USTs and also further characterization of OU-4. It is, therefore, necessary to consider the NYSDEC-recommended soil cleanup levels to pertain to all investigations being performed in OU-4. For this reason, the NYSDEC Analytical Services Protocol (ASP) was followed for post-excavation analyses to provide the highest level of data quality for purposes of the evaluation of remedial alternatives.

The analytical results have been compared to the NYSDEC-recommended soil cleanup levels for cPAHs, PCBs, and lead. In addition, the VOC analytical results have been evaluated against the criteria provided in both the STARS and TAGM documents. Using these comparisons provides for consistency in remedial objectives throughout the entire Yard. The results of the waste characterization and post-excavation soil sampling are discussed in Sections 4.1 and 4.2, respectively.

3.0 SCOPE OF WORK

The scope of work consisted of the abandonment of three 750-gallon former gasoline USTs (designated as VFA 001, VFA 002 and VFA 003) located in the vehicle fueling area (Figure 2). The UST abandonment was performed by Clean Harbors of Edison, New Jersey with a Roux Associates' engineer providing part-time oversight and health and safety monitoring. During abandonment activities, the former fuel dispenser and related piping were removed from the Site. In addition, evidence of visible contamination was observed on the north side of the USTs' vault during the performance of the UST abandonment program. Region 2 of the NYSDEC was immediately notified of the spill, and spill number 9811804 was subsequently assigned. The three USTs were registered and closure was requested from the NYSDEC on December 3, 1998. The correspondence issued to the NYSDEC regarding the registration and closure of the three USTs is provided in Appendix A. The scope of work completed for the abandonment of the USTs is provided below.

The Vehicle Fueling Area was located directly between Buildings No. 2 and 3 (Figure 3). The gasoline USTs were single-wall steel tanks each having a capacity of approximately 750-gallons. These USTs were closed and abandoned in place due to their close proximity to the two buildings and the buildings' foundation walls. Work space within the available area was limited, which restricted the USTs from being completely removed.

Abandonment of the Former Vehicle Fueling Area gasoline USTs proceeded as follows:

- excavation and removal of existing concrete pavement and the top portion of the concrete vault;
- excavation and removal of soil necessary to clean the USTs;
- pre-abandonment, post-excavation and waste characterization sampling;
- cleaning and removal of the fuel dispenser pump and associated underground piping;
- cleaning and abandonment of each UST;
- backfilling of the excavation; and
- site restoration.

A brief description of these activities is provided below.

The steel plate and concrete pavement overlying the soil cover above the USTs (approximately six inches thick) was removed by an excavator and staged adjacent to the work area. Since the USTs were encased in a concrete vault, additional concrete was excavated and staged to facilitate the abandonment of these USTs.

Soil above and adjacent to the concrete vault was excavated and staged to facilitate completion of the UST abandonment. Evidence of petroleum stained soil with an odor was observed within the limits of the northeast corner of the concrete vaults encasing the tanks during the performance of soil excavation activities. As a result, excavation of contaminated soil continued, based on visual observations, adjacent to the north side of the concrete vaults until the horizontal and vertical limits of contamination were reached. The additional excavation extended 6 to 8 feet north of the concrete vault and extended 5 feet east and west towards Buildings No. 3 and No. 2, respectively. The vertical limits of excavation were reached at the water table (approximately 10 feet below grade). As a result of these excavation activities, approximately 70 cubic yards of contaminated soil were placed in 4 on-site lined 20 cubic yard rolloffs and was sampled for waste characterization purposes. These results are provided under separate cover and are discussed in Section 4.1.

Since each UST was encased in a poured concrete vault, no pre-abandonment soil samples were collected below the tanks. However, post-excavation soil samples from the adjacent excavation were collected from the north, west and east sidewalls areas 3 to 4 feet above the bottom of the excavation and at the bottom of the excavation in accordance with NYSDEC STARS and SPOTS guidelines (Figure 3). No soil sample could be collected from the south wall of the excavation since the concrete vault was exposed. As required by the STARS and SPOTS guidelines, post-excavation samples collected from the excavation were analyzed for VOCs. In addition, each sample was analyzed for cPAHs, lead and PCBs for further characterization of OU-4. The results of the post-excavation soil sampling activities are summarized in Tables 1 and 2 and discussed in Section 4.2.

The fuel dispenser pump connected to the three USTs was cleaned, disassembled and wrapped in absorbent padding prior to disposal. Following the removal of the fuel dispenser and associated underground piping, each UST was rendered inert and cleaned. During the performance of the cleaning of each UST, Clean Harbors recovered approximately 385 gallons of gasoline and water and 110 gallons of sludge. These residual liquid and solid wastes were transported to Clean Harbors of Baltimore, Inc. on March 10, 1999 for disposal as hazardous waste. The analytical results for the sampling of these residual wastes are provided under separate cover and the associated Hazardous Waste Manifest is provided in Appendix C.

Final UST abandonment activities consisted of filling each UST with clean sand. Concurrently, the entire excavation was backfilled, with clean sand, by placing and compacting the fill in 12-inch lifts from the bottom of the excavation to grade. Documentation certifying the clean fill is provided in Appendix D.

Site restoration activities consisted of final grading of the backfill with crushed stone at the excavation area and securing work areas.

During the abandonment program, Roux Associates provided part-time health and safety monitoring in the vicinity of the excavation. Air monitoring was conducted using a PID and an explosimeter. Measurements from the instruments indicated that no vapors or explosive conditions were detected in the vicinity of the excavation above the limits specified in the Site Health and Safety Plan (SHASP).

4.0 RESULTS OF THE FORMER VEHICLE FUELING AREA UST ABANDONMENT PROGRAM

The results of the waste characterization sampling of the stockpiled soil generated from the excavation activities and the post-excavation soil sampling for the area of excavation north of the concrete vault are summarized below.

4.1 Soil Stockpile Waste Characterization Sampling Results

As previously discussed in Section 3.0, approximately 70 cubic yards of soil were excavated and stockpiled in 20 cubic yard on-site rolloffs during UST abandonment activities and sampled for waste characterization. One composite soil sample was collected from the on-site rolloffs on January 12, 1999, and analyzed for VOCs, SVOCs, metals, PCBs, pesticides and herbicides using the toxicity characteristic leaching procedure (TCLP); total petroleum hydrocarbons (TPH), total organic halides (TOX) and percent moisture. These waste characterization analytical results are provided under separate cover and indicate that the excavated soil was non-hazardous. Consequently, the excavated soil was transported to Clean Earth of New Castle, Inc. on March 29, 1999 for disposal as non-hazardous waste.

4.2 Post-Excavation Soil Sampling Results

As previously discussed in Section 3.0, post-excavation soil samples were collected after the limits of visual contamination or structural constraints were reached in the excavation adjacent to the USTs. To maintain consistency of sampling protocols with the Remedial Investigation/ Feasibility Study (RI/FS) program at the Yard and to identify soils associated with the USTs that exceed the NYSDEC-recommended soil cleanup levels, laboratory analytical work was performed consistent with those analyses performed as part of the RI/FS program. Laboratory analyses of contaminated soils was performed using the 1995 NYSDEC ASP, USEPA Contract Laboratory Program (CLP), and the Test Methods for Evaluating Solid Waste (SW-846). To provide the data quality required for the OU-4 Remedial Investigation, cPAHs, PCBs and lead were analyzed using 1995 NYSDEC ASP/CLP. The NYSDEC STARS parameters for VOCs were analyzed using ASP/SW-846 using Method 8021.

One post-excavation soil sample from the north, east and west sidewalls and one sample from the bottom of the excavation was collected from the excavation area and analyzed for the above parameters. The sidewall samples were collected from approximately 2 to 3 feet above the excavation bottom and no less than 6 inches below the exposed sidewall surface.

The post-excavation analytical results for the Former Vehicle Fueling Area indicate that no VOCs, cPAHs, PCBs, or lead were detected at concentrations that exceeded the NYSDEC STARS guidelines for any sidewall sample. Furthermore, cPAHs, PCBs and lead were not detected in the bottom sample above NYSDEC-recommended soil cleanup levels; however, VOCs were detected above NYSDEC STARS guidelines for the bottom sample as shown in Table 1.

Although VOCs were detected above NYSDEC STARS guidelines, additional excavation was not continued. The justifications for this are summarized below.

- A spill (Spill #9811804) was reported on December 18, 1998 to Region 2 of the NYSDEC.
- Based on extensive previous sampling results, VOCs are not considered by the NYSDEC or NYSDOH to be compounds of concern at the Yard.
- As shown in Table 1, none of the VOCs detected exceeded NYSDEC TAGM Soil Cleanup guidelines which are applicable for a State Superfund cleanup site.
- Continued excavation within this area could have compromised the structural integrity of the surrounding buildings.
- The Yard will continue to be used for non-residential purposes.

Please note, previous OU-6 remedial investigation efforts have shown no evidence of VOC contamination in well MW-28 (Figure 3), which is approximately 35 feet downgradient of the excavated area. However, ground-water quality conditions at MW-28 will continue to be monitored as part of future OU-6 remedial investigation efforts. If any resulting ground-water contamination becomes evident at MW-28, it will be addressed as part of future OU-6 remediation efforts.

5.0 SUMMARY OF FINDINGS

A brief summary of the findings are provided below.

- In accordance with the September 30, 1997 Work Plan titled "Underground Storage Tank Compliance Plan for OU-4," the three 750-gallon USTs at the former fueling area were cleaned and abandoned in-place following local and State requirements.

- All associated UST piping (fill and process lines) were removed, cleaned and properly disposed.

- A total of 385 gallons of gasoline and water and 110 gallons of residual sludge were removed from the USTs prior to the initiation of excavation activities and disposed of as hazardous waste at Clean Harbors of Baltimore, Inc. on March 10, 1999.

- One composite soil sample was collected from approximately 70 cubic yards of soil generated during UST abandonment activities for waste characterization. The soil sample was analyzed for VOCs, SVOCs, metals, PCBs, pesticides and herbicides using the TCLP; TPH, TOX, and percent moisture. These waste characterization analytical results indicate that the excavated soil was non-hazardous. Consequently, the excavated soil was transported to Clean Earth of New Castle, Inc. on March 29, 1999 for disposal as non-hazardous waste.

- Post-excavation soil samples were collected and analyzed for cPAHs, PCBs, lead and the NYSDEC STARS parameters for VOCs. The results indicated that several VOCs exceeded the NYSDEC STARS guidelines for only the bottom sample as shown in Table 1. However, as previously summarized in Section 4.2, it was deemed appropriate that this soil be left in place. No VOCs were detected in soil exceeding NYSDEC TAGM guidelines and no cPAHs, PCBs or lead in soil were detected in soil exceeding the NYSDEC-recommended soil cleanup levels established for the Yard in any post-excavation soil sample. Although previous OU-6 remedial investigation efforts have shown no evidence of VOC contamination in downgradient well MW-28, ground-water quality conditions at MW-28 will continue to be monitored as part of future OU-6 remedial investigation efforts.

- During the course of the abandonment of the three USTs, no organic vapors or explosive conditions were detected in ambient air in the vicinity of each excavation.

Based on the above findings, no further action is required regarding these USTs.

Respectfully submitted,

ROUX ASSOCIATES, INC.

Omar Ramotar
Project Engineer

William G. Fisher, P.E.
Senior Engineer/
Project Manager

6.0 REFERENCES

Roux Associates, Inc. 1997. Underground Storage Tank Compliance Plan for OU-4, Sunnyside Yard, Queens, New York, September 30, 1997.

Roux Associates, Inc. 1998. UST Closure Report for OU-4 R-Tower UST and Oil-Water Separator Area UST, Sunnyside Yard, Queens, New York, March 11, 1998.

Table 1. Summary of Volatile Organic Compound Concentrations Detected in Post-Excavation Soil Samples, Sunnyside Yard, Queens, New York.

Parameter	Sample Designation: / Sample Date:	NYSDEC STARS Soil Cleanup Guidelines[a] (µg/kg)	NYSDEC TAGM Soil Cleanup Guidelines[b,c,d] (µg/kg)	N WALL 1/4/99	E WALL 1/4/99	W WALL 1/4/99	BOTTOM 1/4/99
VOCs (µg/kg)							
Benzene		14	60	0.44 U	0.44 U	0.44 U	57 U
Ethylbenzene		100	5,500	0.55 U	0.55 U	0.55 U	220
Toluene		100	1,500	0.44 U	0.44 U	0.44 U	57 U
o-Xylene		100	1,200	0.88 U	0.88 U	0.88 U	590
m+p-Xylene		100	1,200	0.99 U	0.99 U	0.99 U	200
Isopropylbenzene[1]		100	2,500	0.55 U	0.55 U	0.55 U	300
n-Propylbenzene[1]		100	2,200	0.99 U	0.99 U	0.99 U	570
p-Isopropyltoluene[1]		100	3,800	0.55 U	0.55 U	0.55 U	280
1,2,4-Trimethylbenzene[1]		100	2,300	0.44 U	0.44 U	0.44 U	700
4-Chlorotoluene+1,3,5-Trimethylbenzene[1]		100	1,700	0.77 U	0.77 U	0.77 U	1000
n-Butylbenzene[1]		100	12,500	0.55 U	0.55 U	0.55 U	1800
sec-Butylbenzene[1]		100	4,400	0.55 U	0.55 U	0.55 U	71 U
Naphthalene		200	13,000	0.55 U	0.55 U	0.55 U	550
MTBE[2]		1,000	--	0.55 U	0.55 U	0.55 U	71 U
t-Butyl-benzene[1]		100	3,300	0.55 U	0.55 U	0.55 U	71 U

Notes:

VOCs - Volatile Organic Compounds

µg/kg - Micrograms per kilogram

U - Compound was analyzed for but not detected

-- - Not Applicable

1. TAGM soil cleanup guidelines for compound calculated based on information provided in References (b), (c) and (d) as follows:
   - Cs (TAGM soil cleanup guidance value) = f x Cw x Koc obtained from review of Reference (b)
     f (soil organic content) = 1% obtained from review of Reference (b)
     Cw (water quality GA value) obtained from review of Reference (c)
     Koc (partition coefficient between water and soil media) obtained from review of References (d) and (e)
2. TAGM soil cleanup guideline for MTBE not determined.

References:

(a) NYSDEC, NYSDEC Spill Technology and Remediation Series (STARS) Memo #1: Petroleum-Contaminated Soil Guidance Policy, Auguest, 1992.

(b) NYSDEC, NYSDEC Division Technical and Admistrative Guidance Memorandum (TAGM) on Determination of Soil Cleanup Objectives and Cleanup Levels, January, 1994 (Revised).

(c) NYSDEC, NYSDEC Division of Water Technical and Operation Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values, October, 1993.

(d) John H. Montgomery, Groundwater Chemicals Field Guide, Lewis Publishing, Inc., New York, 1991.

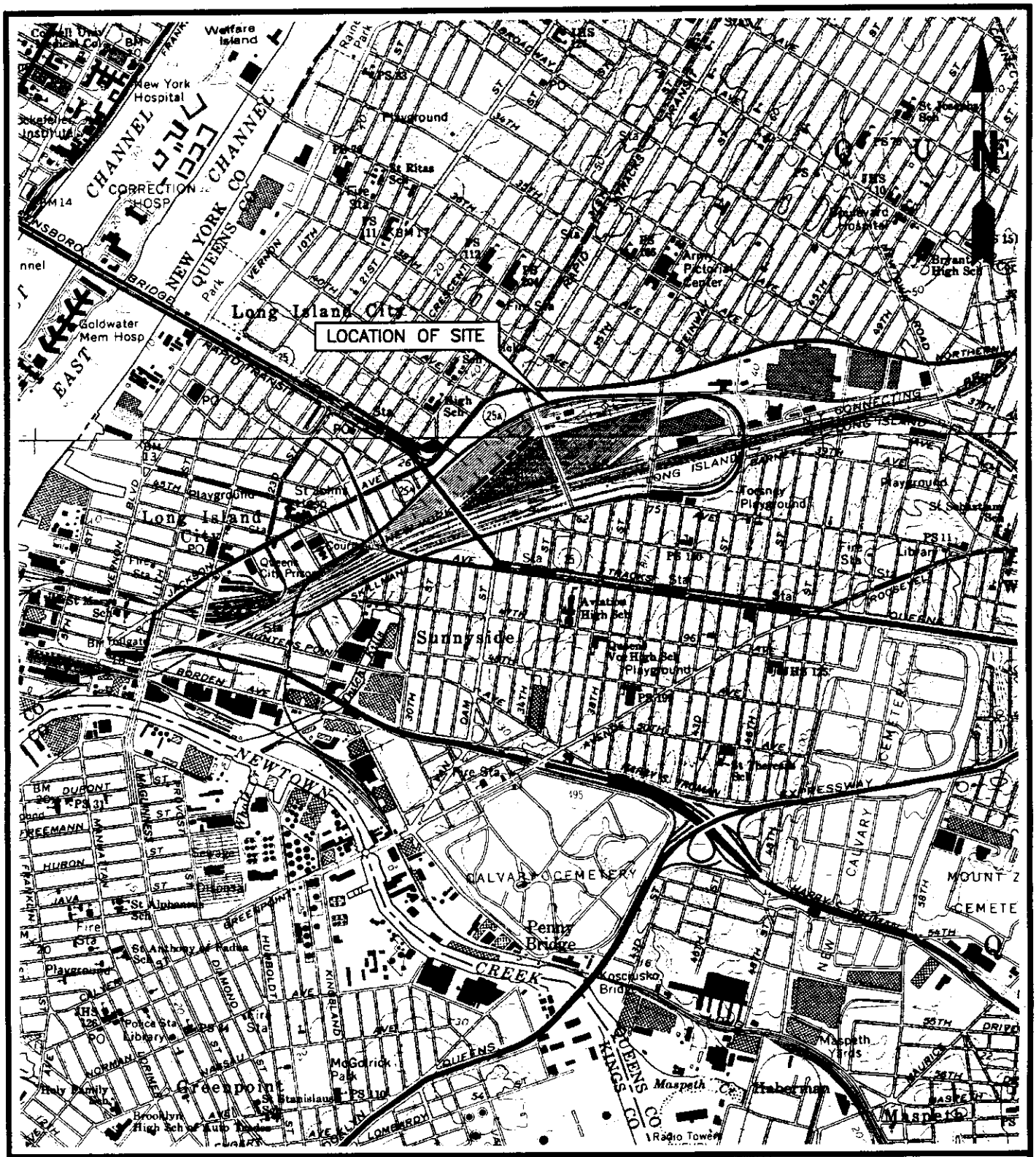
(e) Hazardous Substance Database Scan, April, 1999.

Table 2. Summary of Carcinogenic Polycyclic Aromatic Hydrocarbons, Polychlorinated Biphenyls, and Lead Detected in Post-Excavation Soil Samples, Sunnyside Yard, Queens, New York.

Parameter	Sample Designation: / Sample Date:	NWALL 1/4/99	EWALL 1/4/99	WWALL 1/4/99	BOTTOM 1/4/99
	Site-Specific NYSDEC-Recommended Soil Cleanup Guidelines				
cPAHs (µg/kg)					
Benzo(a) anthracene	--	360 U	370 U	360 U	170
Chrysene	--	360 U	370 U	360 U	200
Benzo(b)fluoranthene	--	360 U	370 U	360 U	160
Benzo(k)fluoranthene	--	360 U	370 U	360 U	100
Benzo(a)pyrene	--	360 U	370 U	360 U	110
Indeno(1,2,3-cd)pyrene	--	360 U	370 U	360 U	93 J
Dibenz(a,h)anthracene	--	360 U	370 U	360 U	95 U
Total cPAHs	25,000 ug/kg	0	0	0	740
PCBs (µg/kg)					
Aroclor-1016	--	36 U	37 U	36 U	38 U
Aroclor-1221	--	73 U	75 U	73 U	76 U
Aroclor-1232	--	36 U	37 U	36 U	38 U
Aroclor-1242	--	36 U	37 U	36 U	38 U
Aroclor-1248	--	36 U	37 U	36 U	38 U
Aroclor-1254	--	36 U	37 U	36 U	38 U
Aroclor-1260	--	36 U	37 U	36 U	26 J
Total Aroclors	25,000 ug/kg	0	0	0	26 J
Lead (mg/kg)	1000 mg/kg	17.2	7.4	14.7	36.1

Legend:

µg/kg - Micrograms per kilogram
mg/kg - Milligrams per kilogram
U - Compound was analyzed for but not detected
-- - Not applicable
cPAHs - Carcinogenic polynuclear aromatic hydrocarbons
PCBs - Polychlorinated biphenyls



SOURCE:
CENTRAL PARK AND BROOKLYN, NEW YORK
QUADRANGLE 7.5 MINUTE SERIES (TOPOGRAPHIC)

Title:

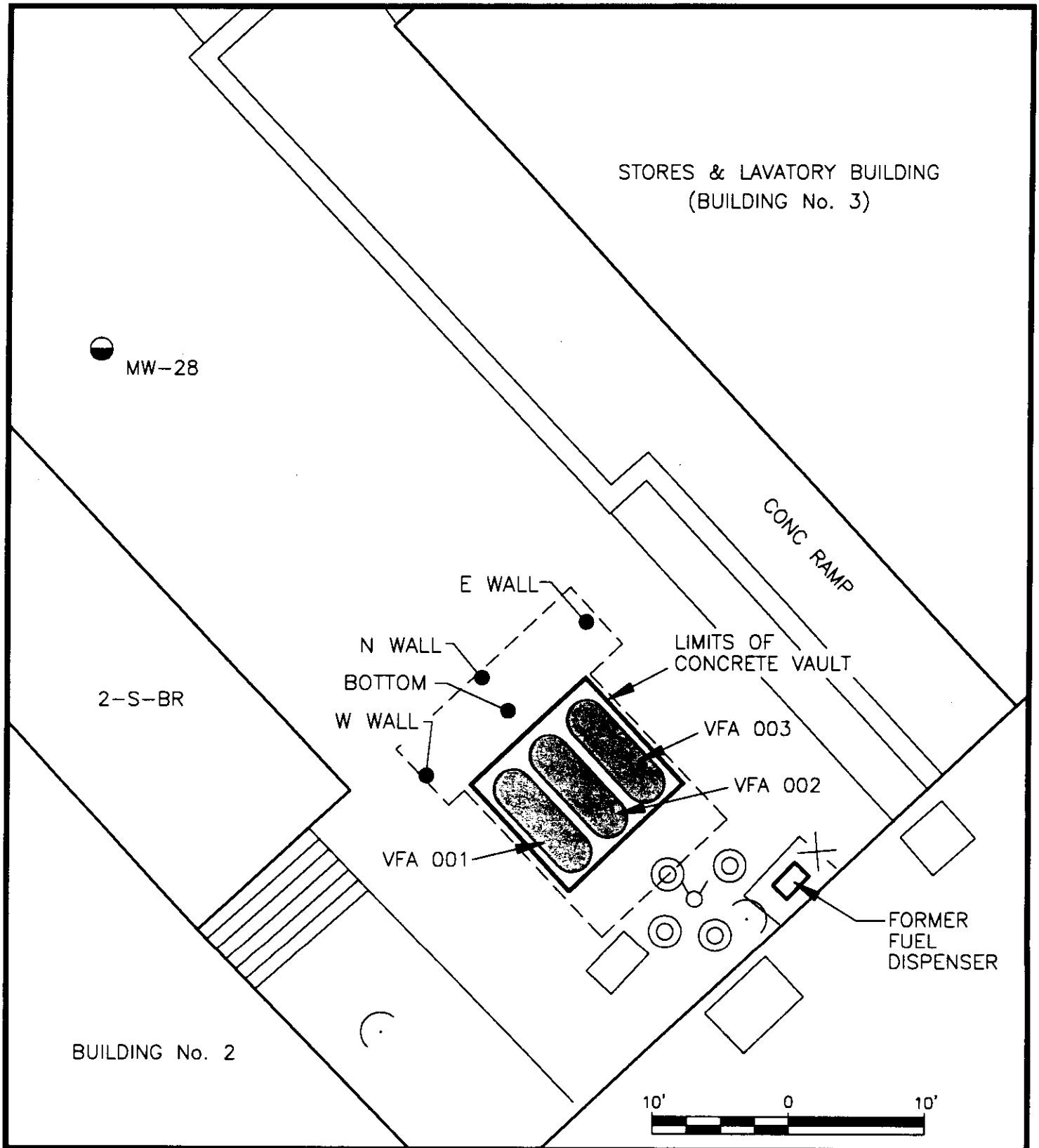
YARD LOCATION MAP

SUNNYSIDE YARD, QUEENS, NEW YORK

Prepared For:
Amtrak

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: M.R.	Date: 1/99	FIGURE
Prepared by: G.M.	Scale: 1"=2,000'	1
Project Mgr: H.G.	Office: NY	
File No: A2813701	Project: 05525Y	



LEGEND

N WALL ●	POST-EXCAVATION SAMPLE DESIGNATION AND LOCATION
VFA 001 ⬭	DESIGNATION AND LOCATION OF UNDERGROUND STORAGE TANK (UST)
- - - -	AREA OF EXCAVATION
SMH ○	LOCATION OF SOLID COVER MANHOLE
⚲	LOCATION OF FIRE HYDRANT
MW-28 ◒	LOCATION AND DESIGNATION OF MONITORING WELL

Title:

UNDERGROUND STORAGE TANK LOCATION PLAN

SUNNYSIDE YARD, QUEENS, NEW YORK

Prepared For:

Amtrak

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: M.R.	Date: 6/99	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	3
Project Mgr: B.F.	Office: NY	
File No: A2813703	Project: 05528Y02	

N:\PROJECTS\AM055Y\AM28Y\137\A2813701.DWG

APPENDIX A

December 3, 1998 Correspondence to the NYSDEC
Regarding UST Registration and Proposed Closure

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC

1377 MOTOR PARKWAY
ISLANDIA NEW YORK 11788
TEL 516 232-2600 FAX 516 232-9898

December 3, 1998

Anthony Sigona, P.E.
Environmental Engineer I
Division of Environmental Remediation
New York State Department of Environmental Conservation
47-40 21st Street, 2nd Floor
Long Island City, New York 11101

Re: Registration and Proposed Closure of
Underground Storage Tanks at
National Railroad Passenger Corporation
Sunnyside Yard, Queens, New York

Dear Mr. Sigona:

This letter serves to notify the New York State Department of Environmental Conservation (NYSDEC) of the intended underground storage tank (UST) closures proposed by the National Passenger Railroad Corporation (Amtrak) at the Sunnyside Yard, Queens, New York facility (Yard).

In accordance with Section 3.2, UST Abandonment, of the report titled, "Underground Storage Tank Compliance Plan for Operable Unit 4, Sunnyside Yard, Queens, New York," three 750-gallon USTs are proposed to be abandoned in place. These USTs are all active and are currently used to fuel Yard vehicles. Please note, a replacement vehicle fueling system has been permitted and designed in accordance with the requirements of the New York City Department of Buildings and the New York City Fire Department; and it will be installed concurrently with the closure of the former fueling area. The closure of the former fueling area and construction of the replacement fueling system are both scheduled to begin the week of December 14, 1998.

On behalf of Amtrak, Roux Associates has completed the Petroleum Bulk Storage (PBS) application to register and close the three 750-gallon USTs pursuant to the Petroleum Bulk Storage Law (Article 17, Title 10 of ECL; 6 NYCRR 612-614 and 6 NYCRR, Subpart 380-14).

Enclosed please find the completed PBS application, the required UST site location plan and a $150.00 check made payable to the NYSDEC submitted in accordance with the requirements of the PBS application.

A UST Closure Report documenting the activities performed will be submitted to your office following completion of the UST closure activities within 60 days. If you have any questions, please call.

Sincerely,

ROUX ASSOCIATES, INC.

William G. Fisher (VDD)

William G. Fisher, P.E.
Senior Engineer

cc: Hari Agrawal, P.E., NYSDEC
Richard Mohlenhoff, P.E., Amtrak
Fire Marshall, New York City Fire Department
Joseph D. Duminuco, Roux Associates, Inc.
Omar Ramotar, Roux Associates, Inc.

Enclosure

93-19 1 (10/93)—26c

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILLS MANAGEMENT • BUREAU OF SOURCE CONTROL

PETROLEUM BULK STORAGE APPLICATION

Pursuant to the Petroleum Bulk Storage Law, Article 17, Title 10 of ECL; and 6 NYCRR 612-614.

Please Type or Print Clearly and Complete All Items

(Continued on Reverse Side—Please Be Sure to Complete Section B)

SECTION A—See Instructions on Cover Sheet

PBS NUMBER

Indicate Other Existing DEC Numbers, if any, for this Facility:

CBS Number: N/A

SPDES Number: N/A

TRANSACTION TYPE (Check all that apply)
NOTE: Transaction Types 1, 2 and 5 require a fee.

1. [X] Initial/New Facility
2. [ ] Change of Ownership
3. [X] Substantial Tank Modification
4. [ ] Information Correction
5. [ ] Renewal

Geographical Locator for this Facility: (If known)

LATITUDE: DEG MIN SEC

LONGITUDE: DEG MIN SEC

FACILITY

NAME: National Railroad Passenger Corporation

LOCATION (Not P.O. Boxes): 39-29 Honeywell St., Sunnyside Yard

LOCATION (Continued):

CITY/TOWN/VILLAGE: Long Island City | STATE: NY | ZIP CODE: 11101

COUNTY: Queens | TOWNSHIP OR CITY: Borough of NYC

NAME OF OPERATOR AT FACILITY: John Kroll | FACILITY TELEPHONE NUMBER: (212)630-7565

EMERGENCY CONTACT NAME: John Kroll | EMERGENCY CONTACT PHONE NO.: (212)630-7565

OWNER

NAME: National Railroad Passenger Corporation

ADDRESS (Street and/or P.O. Box): 60 Massachusetts Avenue, N.E.

CITY: Washington | STATE: D.C. | ZIP CODE: 20002

FEDERAL TAX ID NO.: N/A | OWNER TELEPHONE NUMBER: 202)737-3860

TYPE OF OWNER (Check only one)

1 [ ] Private Resident 2 [ ] State Government 3 [ ] Local Government
4 [ ] Federal Government 5 [X] Corporate/Commercial

MAILING CORRESPONDENCE

ATTENTION: Richard Mohlenhoff

NAME OF COMPANY: National Railroad Passenger Corporation

ADDRESS: 400 West 31st Street

ADDRESS: 6th Floor

CITY/STATE/ZIP CODE: New York, New York 10001

TELEPHONE NUMBER: (212) 630-6215

TYPE OF PETROLEUM FACILITY:
(Check all that apply)

A. [ ] Storage Terminal/Petroleum Distributor
B. [ ] Retail Gasoline Sales
C. [ ] Other Retail Sales
D. [ ] Manufacturing
E. [ ] Utility
F. [X] Trucking/Transportation
G. [ ] Apartment Building
H. [ ] School
I. [ ] Farm
J. [ ] Private Residence
K. [ ] Airline (Air Taxi)
L. [ ] Other (Specify)

I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

NAME OF OWNER OR AUTHORIZED REPRESENTATIVE: Joseph D. Duminuco | AMOUNT ENCLOSED: $ 150.00

TITLE: Principal Hydrogeologist

SIGNATURE: Joseph D. Duminuco | DATE: 12/3/98

OFFICIAL USE ONLY

Page _____ of _____

Date Received: ____/____/____

Date Processed: ____/____/____

Amount Received $ _____

Reviewed By: _____

Tank Information for Petroleum Bulk Storage Facility

SECTION B—See Instructions on Cover Sheet

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date (MO)		(YR)		Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection		Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection		Secondary Containment		Leak Detection		Spill/ Overfill Prevention		Dispenser	Last Test Date (underground Tank) (MO)		(YR)
1	VFA-001	4	2	0	0	0	0	750	2	1	0	0	0	2														
1	VFA-002	4	2	0	0	0	0	750	2	1	0	0	0	2														
1	VFA-003	4	2	0	0	0	0	750	2	1	0	0	0	2														
3	VFA-001	4	4	1	2	9	8	750	0	1	0	0	0	2														
3	VFA-002	4	4	1	2	9	8	750	0	1	0	0	0	2														
3	VFA-003	4	4	1	2	9	8	750	0	1	0	0	0	2														

KEY FOR SECTION B

ACTION
1 Initial Listing
2 Add Tank
3 Close/Remove Tank
4 Information Correction
5 Recondition/Repair/ Reline Tank

TANK LOCATION
1 Aboveground
2 Aboveground on saddles legs, stilts, rack, or cradle
3 Aboveground: 10% or more below ground
4 Underground
5 Underground, vaulted, with access

STATUS
1 In-service
2 Temporarily out-of-service
3 Closed—Removed
4 Closed—In Place
5 Tank Converted to Non-Regulated Use

PRODUCT STORED
0 Empty
1 Leaded Gasoline
2 Unleaded Gasoline
3 Nos. 1, 2, or 4 Fuel Oil
4 Nos. 5 or 6 Fuel Oil
5 Kerosene
6 Diesel
A Lube Oil
9 Other*

TANK TYPE
1 Steel/Carbon Steel
2 Stainless Steel Alloy
3 Concrete
4 Fiberglass Coated Steel
5 Fiberglass Reinforced Plastic (FRP)
6 Equivalent Technology
9 Other*

PIPING TYPE
0 None
1 Steel/Iron
2 Galvanized Steel
3 Fiberglass (FRP)
4 Copper
9 Other*

INTERNAL PROTECTION: Tank/Piping
0 None
1 Epoxy Liner
2 Rubber Liner
3 Fiberglass Liner (FRP)
4 Glass Liner
9 Other*

EXTERNAL PROTECTION: Tank/Piping
0 None
1 Painted/Asphalt Coating
2 Sacrificial Anode
3 Impressed Current
4 Fiberglass
5 Jackeled
6 Wrapped (Piping)
9 Other*

PIPING LOCATION
0 None
1 Aboveground
2 Underground
3 Aboveground/Underground Combination

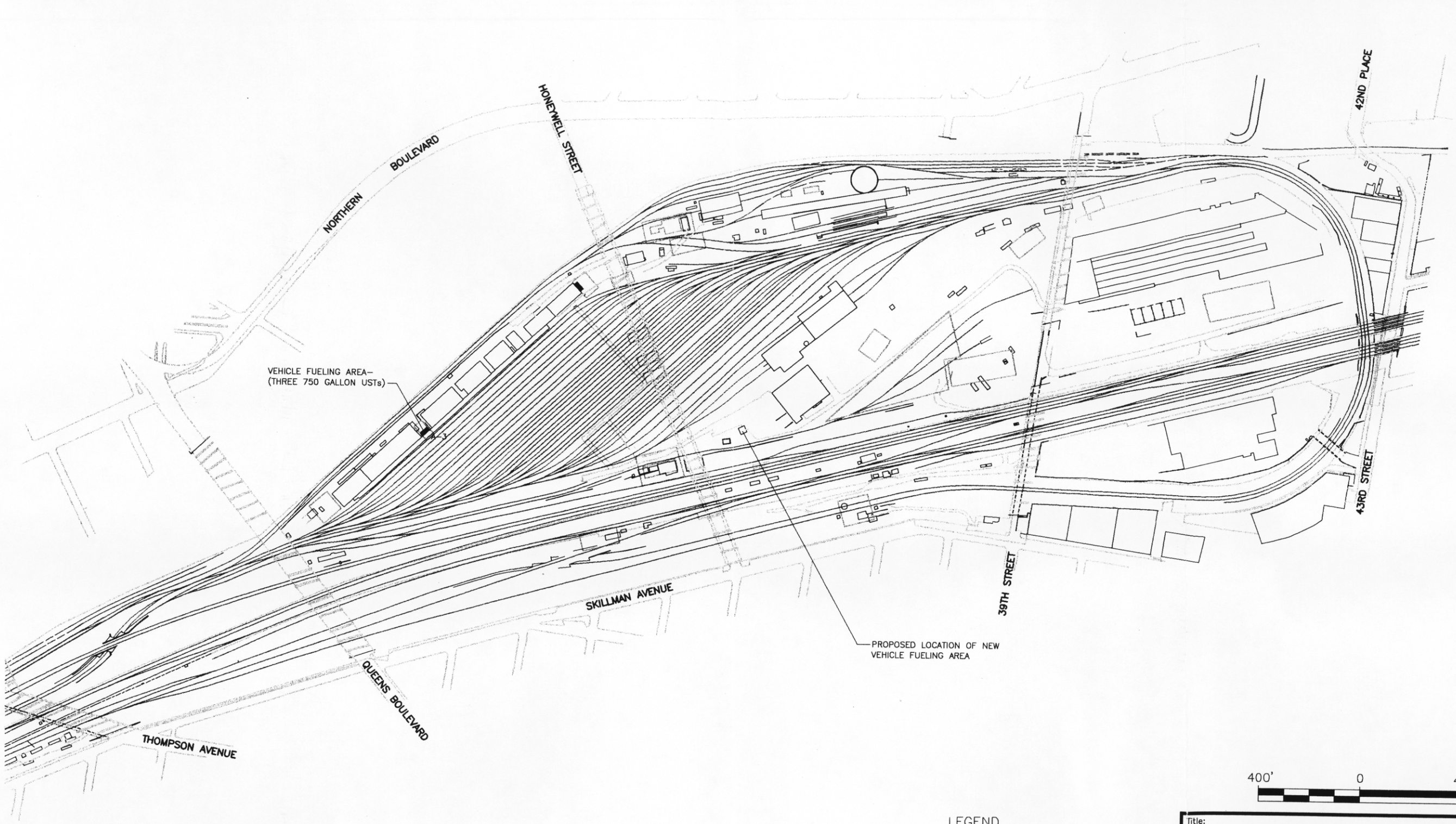
SECONDARY CONTAINMENT
0 None
1 Vault
2 Double-Walled Tank
3 Excavation Liner
4 Cut-off Walls
5 Impervious Underlayment
6 Earthen Dike
7 Prefabricated Steel Dike
8 Concrete Dike
A Synthetic Liner
B Natural Liner
9 Other*

LEAK DETECTION
0 None
1 Interstitial Monitoring
2 Vapor Well
3 Groundwater Well
4 In-tank System
5 Concrete Pad w/channels
6 Double Bottom
9 Other*

SPILL/OVERFILL PREVENTION
0 None
1 Float Vent Valve
2 High Level Alarm
3 Automatic Shut-off
4 Product Level Gauge
5 Catch Basin
6 Vent Whistle
9 Other*

DISPENSER
1 Submersible
2 Suction
3 Gravity

* If Other, please list on separate sheet including the Tank Number



LEGEND

▬ UST LOCATION

Title:

UNDERGROUND STORAGE TANK LOCATION PLAN

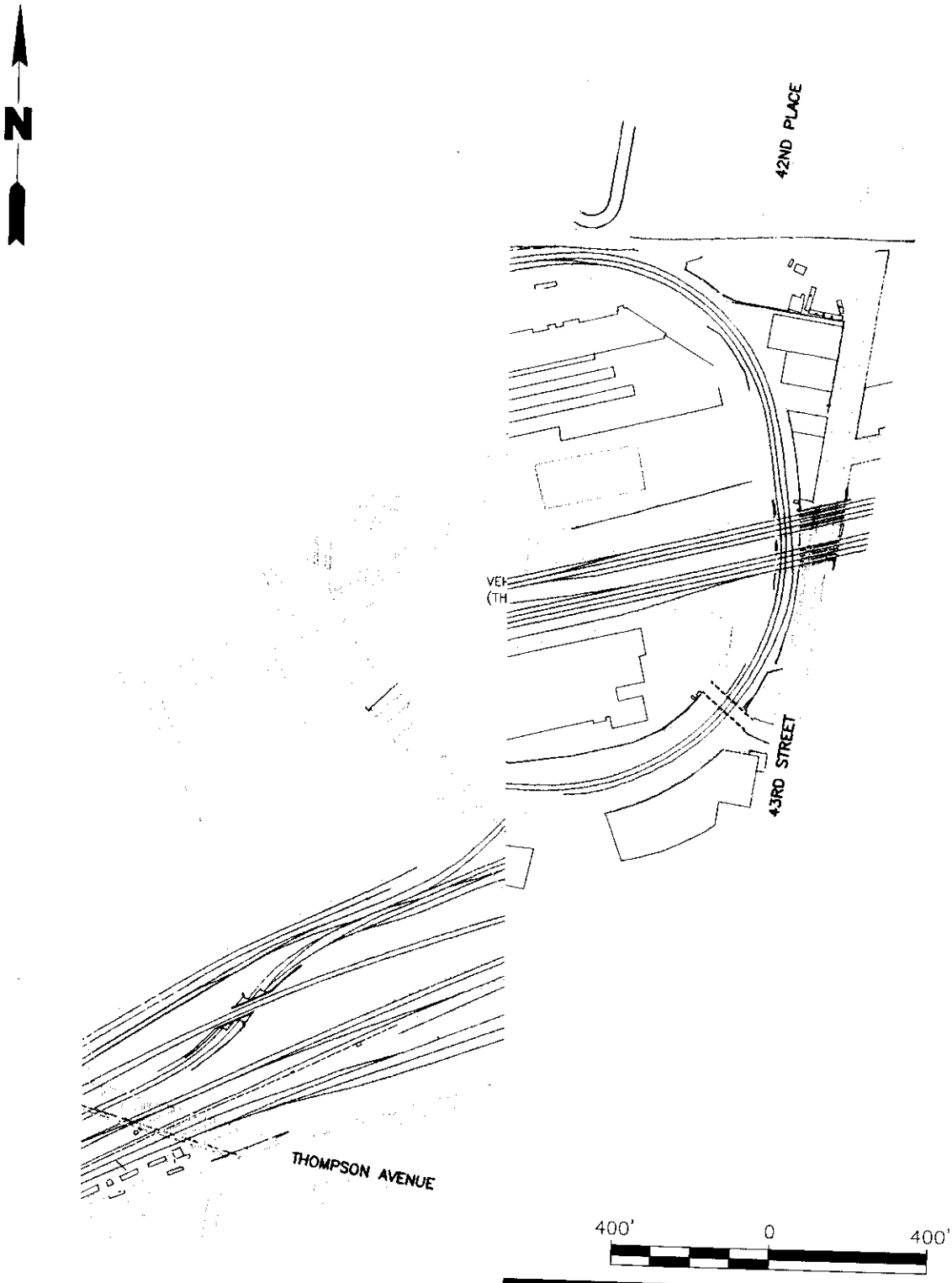
SUNNYSIDE YARD, QUEENS, NEW YORK

Prepared For:

NATIONAL RAILROAD PASSENGER CORPORATION

ROUX ASSOCIATES INC
Environmental Consulting & Management

Compiled by: D.L.	Date: 12/98	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	1
Project Mgr: J.D.D.	Status: FINAL	
File No: A2813201	Project: 05528Y02	



Title:

UNDERGROUND STORAGE TANK LOCATION PLAN

SUNNYSIDE YARD, QUEENS, NEW YORK

Prepared For:

NATIONAL RAILROAD PASSENGER CORPORATION

ROUX

ROUX ASSOCIATES INC
Environmental Consulting & Management

Compiled by: D.L.	Date: 12/98	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	
Project Mgr: J.D.D.	Status: FINAL	1
File No: A2813201	Project: 05528Y02	

APPENDIX B

Bill of Lading for
Excavated Non-Hazardous Soil Disposal

APPROVAL NUMBER: 710518 MANIFEST NUMBER: 30915

CLEAN EARTH OF NEW CASTLE, INC.
94 Pyles Lane • P.O. Box 1049
New Castle, Delaware 19720-1049
Ph: 302.427.6633 • Fax: 302.427.6634
An Equal Opportunity Employer

(TYPE OR PRINT CLEARLY)

Non-Hazardous Material Manifest

GENERATOR'S NAME & MAILING ADDRESS:
NATIONAL RAIL ROAD CORP
4100 WEST 31ST 4TH FLOOR
CHI, IL 10001

GENERATOR'S SITE ADDRESS:
SAME
35-25 HOMELAND ST
LONG ISLAND CITY, NY 11101

GENERATOR'S PHONE: (212) 630-6215

DESCRIPTION OF MATERIAL:

Non DOT Regulated - RCRA Non-Hazardous
Petroleum Hydrocarbon Contaminated Soil

Quantity (estimated per truck) _____ Tons

I hereby certify that the above described materials is not a hazardous waste as defined by 40 CFR Part 261 nor is it contaminated by PCB as defined by 40 CFR Part 761. Additionally it is the same material which was analyzed and described in the application for treatment provided to Clean Earth of New Castle, Inc. which resulted in the approval number listed above. It is properly classified and packaged for transportation in accordance with applicable regulations.

Name: SCOTT CARR (AS AGENT FOR NRC) Title: _____

Signature: _____ Date: 3/25/55

TRANSPORTER

Company: _____ Phone Number: _____

Address: _____

Driver: _____ DE SW Haulers Permit # SW _____
(TYPE OR PRINT CLEARLY)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: _____ Date: 3-25-55

DESTINATION

I hereby certify that the above named material was delivered without incident to the Clean Earth of New Castle, Inc. facility at Pyles Lane, New Castle, Delaware.

Driver Signature: _____ Date: _____

I hereby certify that the above named material has been accepted at Clean Earth of New Castle, Inc.

Authorized Signature: _____ Date: _____

Gross Weight: _____

Tare Weight: _____

Net Weight In Tons: _____

APPROVAL NUMBER: 970318 MANIFEST NUMBER: 34431

CLEAN EARTH OF NEW CASTLE, INC.
94 Pyles Lane • P.O. Box 1049
New Castle, Delaware 19720-1049
Ph: 302.427.6633 • Fax: 302.427.6634
An Equal Opportunity Employer

(TYPE OR PRINT CLEARLY)

Non-Hazardous Material Manifest

GENERATOR'S NAME & MAILING ADDRESS:
NATIONAL RAILROAD PASSENGER CORP.
400 WEST 31ST ST., 4TH FLOOR
NEW YORK, NY 10001

GENERATOR'S PHONE: (212) 630-6215

GENERATOR'S SITE ADDRESS:
SAME
39-29 HONEYWELL ST.
LONG ISLAND CITY, NY 11101

DESCRIPTION OF MATERIAL:

Non DOT Regulated - RCRA Non-Hazardous
Petroleum Hydrocarbon Contaminated Soil

Quantity (estimated per truck) 22 Tons

I hereby certify that the above described materials is not a hazardous waste as defined by 40 CFR Part 261 nor is it contaminated by PCB as defined by 40 CFR Part 761. Additionally it is the same material which was analyzed and described in the application for treatment provided to Clean Earth of New Castle, Inc. which resulted in the approval number listed above. It is properly classified and packaged for transportation in accordance with applicable regulations.

Name: Scott Bauer Title:

Signature: Date: 3/25/05

TRANSPORTER

Company: P.J.T Phone Number:

Address:

Driver: (TYPE OR PRINT CLEARLY) DE SW Haulers Permit # SW

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Date: 3.25.05

DESTINATION

I hereby certify that the above named material was delivered without incident to the Clean Earth of New Castle, Inc. facility at Pyles Lane, New Castle, Delaware.

Driver Signature: Date:

I hereby certify that the above named material has been accepted at Clean Earth of New Castle, Inc.

Authorized Signature: Date:

Gross Weight:

Tare Weight:

Net Weight In Tons:

APPROVAL NUMBER: 970318 MANIFEST NUMBER: 30917

CLEAN EARTH OF NEW CASTLE, INC.

94 Pyles Lane • P.O. Box 1049
New Castle, Delaware 19720-1049
Ph: 302.427.6633 • Fax: 302.427.6634
An Equal Opportunity Employer

(TYPE OR PRINT CLEARLY)

Non-Hazardous Material Manifest

GENERATOR'S NAME & MAILING ADDRESS:
National Railroad Passenger Corp
400 West 31st 4th Floor
NY. NY 0001

GENERATOR'S SITE ADDRESS:
Same
35-25 Honeywell St
Long Island City NY 11101

GENERATOR'S PHONE: (212) 630-6215

DESCRIPTION OF MATERIAL:

Non DOT Regulated - RCRA Non-Hazardous
Petroleum Hydrocarbon Contaminated Soil

Quantity (estimated per truck) _____ Tons

I hereby certify that the above described materials is not a hazardous waste as defined by 40 CFR Part 261 nor is it contaminated by PCB as defined by 40 CFR Part 761. Additionally it is the same material which was analyzed and described in the application for treatment provided to Clean Earth of New Castle, Inc. which resulted in the approval number listed above. It is properly classified and packaged for transportation in accordance with applicable regulations.

Name: Scott Bren (AS AGENT FOR NRPC) Title: _____

Signature: _____ Date: 3/25/99

TRANSPORTER

Company: Melvin Beam Phone Number: _____

Address: Galion N.J.

Driver: Steve Raffone DE SW Haulers Permit # SW
(TYPE OR PRINT CLEARLY)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: Steve Raffone Date: 3/29/99

DESTINATION

I hereby certify that the above named material was delivered without incident to the Clean Earth of New Castle, Inc. facility at Pyles Lane, New Castle, Delaware.

Driver Signature: _____ Date: _____

I hereby certify that the above named material has been accepted at Clean Earth of New Castle, Inc.

Authorized Signature: _____ Date: _____

Gross Weight: _____

Tare Weight: _____

Net Weight In Tons: _____

APPROVAL NUMBER: 550318 MANIFEST NUMBER: 30916

CLEAN EARTH OF NEW CASTLE, INC.
94 Pyles Lane • P.O. Box 1049
New Castle, Delaware 19720-1049
Ph: 302.427.6633 • Fax: 302.427.6634
An Equal Opportunity Employer

(TYPE OR PRINT CLEARLY)

Non-Hazardous Material Manifest

GENERATOR'S NAME & MAILING ADDRESS:
National R.R. Road Passenger Corp
1100 West 31st 4th Floor
New York 10001

GENERATOR'S SITE ADDRESS:
Same
35-29 Honeywell ST
Long Island City NY 11101

GENERATOR'S PHONE: (212) 630-6215

DESCRIPTION OF MATERIAL:

Non DOT Regulated - RCRA Non-Hazardous
Petroleum Hydrocarbon Contaminated Soil

Quantity (estimated per truck) _____ Tons

I hereby certify that the above described materials is not a hazardous waste as defined by 40 CFR Part 261 nor is it contaminated by PCB as defined by 40 CFR Part 761. Additionally it is the same material which was analyzed and described in the application for treatment provided to Clean Earth of New Castle, Inc. which resulted in the approval number listed above. It is properly classified and packaged for transportation in accordance with applicable regulations.

Name: Agent for Contractor Scott Brown Title: _____

Signature: _____ Date: 3/25/05

TRANSPORTER

Company: A & T Trucking Phone Number: 1-800-[illegible]

Address: _____

Driver: Melvin D. Hall 5006. TA DE/SW Haulers Permit #: E SW
(TYPE OR PRINT CLEARLY)

I hereby certify that the above named material was picked up at the site listed above

Driver Signature: _____ Date: _____

DESTINATION

I hereby certify that the above named material was delivered without incident to the Clean Earth of New Castle, Inc. facility at Pyles Lane, New Castle, Delaware.

Driver Signature: _____ Date: _____

I hereby certify that the above named material has been accepted at Clean Earth of New Castle, Inc.

Authorized Signature: _____ Date: _____

Gross Weight: _____

Tare Weight: _____

Net Weight In Tons: _____

APPENDIX C

Hazardous Waste Manifest for
Residual Fuel Oil and Water Disposal

MARYLAND HAZARDOUS WASTE MANIFEST

Department of the Environment - Waste Management Administration
2500 Broening Highway Baltimore, MD 21224

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-9

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: N Y D 0 7 8 5 1 5 8 9 5 | Manifest Document No.: 0 9 8 1 3 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
National Railroad Passenger Corp.
Attn: Rich Mohlenhoff 100 West 31st Street, 4th Floor
New York, NY 10001

4. Generator's Phone (212-630-6215)

A. State Manifest Document Number: MDC 0809813
B. State Generator: Amtrak Sunnyside Long Island City, NY
C. State Transporter: HWH MD PA NJ DC MD
D. Transporter's Phone: 781-849-1800
E. State Transporter's ID: HWH DC
F. Transporter's Phone:
G. State Facility ID: A-151
H. Facility's Phone: 410-282-8200

5. Transporter 1 Company Name: Clean Harbors Env. Services, Inc.
6. US EPA ID Number: M A D 0 5 9 3 2 2 5 5 0
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: Clean Harbors Of Baltimore Inc
1910 Russell Street
Baltimore, MD 21230
10. US EPA ID Number: M D D 0 8 0 5 5 5 4 9

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, (D001) WASTE GASOLINE, 3, UN1203, PGII	001	DM	2000	P	D001
b. HAZARDOUS WASTE, SOLID, N.O.S. (BENZENE), 9, NA3077, PGIII	001	DM	1 Yd³	P	D018
c.					
d.					

J. Additional Descriptions for Materials Listed Above

	Haz. Code	Physical State	Specific Gravity	Percentage
a.	E I	SL	1.0	100%
b.	E	S	1.0	100%
c.				
d.				

K. Handling Codes for Wastes Listed Above: a. S b. S c. d.

15. Special Handling Instructions and Additional Information
CH039078, ALSO D008, D018 ERG# 128 IN CASE OF SPILL, DIKE AND CONTAIN.
CH017534 ERG# 171 IN CASE OF EMERGENCY, CALL, 1-800-645-8265
NJDEP DECAL# WO# MS156271

16. GENERATORS 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, and Maryland Statutes or Regulation.

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: AS AGENT FOR AMTRAK Scott Baker Signature: Month 03 Day 10 Year 99

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: LESTER O. UHLER Signature: Date Month 03 Day 10

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Signature: Date Month Day

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: Chad Salamone Signature: Chad Salamone Date Month 03 Day 11

MDC 0809813

In case of an emergency or spill immediately call the National Response Center at (800) 424-8802 and the MDE at (410) 631-3400. Nights and Holidays at (410) 974-3551

EPA Form 8700-22 (9-95)

Clean Harbors has appropriate permits for and will accept the waste described on this manifest for treatment, storage or disposal.

APPENDIX D

Certified Clean Sand Certification

SUNSD
Amboy
Aggr

S & S ENVIRONMENTAL SCIENCES, INC.

Scientific and Chemical Testing and Consultation

98 Sand Park Rd., Cedar Grove, NJ 07009
(973) 239-6001 Fax (973) 239-8380

Kamil Sor, Ph.D.
Orhun Sor, P.E.
Peter G. Micklus, P.E.

Client:	Amboy Aggregates T/A McCormack Aggregates		
Project:	McCormack Aggregates, South Amboy, New Jersey		
Subject:	Laboratory Analysis of Raw Sediment Sample		
Job No.:	96E002	Report No. 98-E154	Date: 8/27/98

We present herewith laboratory test results of one (1) Raw Sediment Sample received on July 31, 1998.

The analyses were performed in accordance with the USEPA and NJDEP approved methods, by the All Service Testing, Inc. (NJDEP Laboratory No. 18712) Lab.

- TCLP Metals
- Pesticides and PCBs
- Chloride (requested by the client, no required by the NJPDES Permit, NJ 0064581)
- Volatile Organic Compounds
- Base/Neutral Extractable Organic Compounds
- Acid Extractable Organic Compounds

The sample Chain-of-Custody form is attached for your records. The test results are summarized in Table 1. The method detection limits for all the pollutants tested are presented in Appendix A. The laboratory report for the samples received and analyzed is enclosed. Based on these test results, the sample tested is not contaminated.

If you have any questions, please do not hesitate to call.

Very truly yours,
S & S ENVIRONMENTAL SCIENCES, INC.

Kamil Sor, Ph.D.
President

KS/ns
cc: (1) Client,
Attn: Mr. Richard Rosamilia

S & S ENVIRONMENTAL SCIENCES, INC.

Amboy Aggregates T/A
McCormack Aggregates
South Amboy, New Jersey

SSES Sample ID: 98-109
Sampling Date: 7/31/98

Job No.: 96E002
Matrix: Sand

TABLE 1

SUMMARY OF ANALYTICAL RESULTS

ANALYTICAL PARAMETERS	RESULTS
1. Metals (mg/l):	
Antimony	<0.01
Arsenic	<0.01
Barium	<0.5
Cadmium	<0.03
Chromium	<0.25
Copper	<0.25
Lead	<0.25
Mercury	<0.001
Nickel	<0.2
Selenium	<0.1
Silver	<0.1
Thallium	<0.1
Zinc	<0.01
2. Chloride (mg/kg)	122.5
3. Volatile Organics (mg/kg):	
Targeted Compounds	0.750B – See Attached
Non-Targeted Compounds	32.15 – See Attached
4. Semi-Volatile Organics (mg/kg):	
Targeted Compounds	ND – See Attached
Non-Targeted Compounds	8.7 – See Attached
5. Pesticides and PCBs (mg/kg)	ND – See Attached

< denotes "less than
ND denotes "Not Detected"
Metals analyses performed by TCLP method
B – present in Lab Blank

APPENDIX A

AllService Testing

August 25, 1998

CLIENT: S & S Environmental Sciences
PROJECT: So. Amboy

SAMPLE ID: 98-109
LAB #: 11014

TCLP METALS

PARAMETER	RESULT	MDL	UNITS
Antimony	ND	10.0	ug/L
Arsenic	ND	10	ug/L
Beryllium	ND	5.00	ug/L
Cadmium	30.0	30.0	ug/L
Chromium	ND	250	ug/L
Copper	ND	250	ug/L
Lead	ND	250	ug/L
Mercury	ND	1.00	ug/L
Nickel	ND	200	ug/L
Selenium	ND	100	ug/L
Silver	ND	100	ug/L
Thallium	ND	10.0	ug/L
Zinc	ND	100	ug/L

OTHER CHEMISTRIES

Chloride	122.5	9.9	mg/Kg
Cyanide	ND	0.25	mg/Kg
Phenols	2.81	1.81	mg/Kg

ND = Not Detected Above MDL
MDL = Method Detection Limit

AllService Testing-

VOLATILE ORGANIC GC/MS REPORT

CLIENT NAME : S & S Environmental
LAB SAMPLE ID : 11014
CLIENT SAMPLE ID: 98-109

% SOLIDS : 100.0%
MATRIX : SOIL
DATE ANALYZED: 08/15/98

CAS NUMBER	COMPOUND	RESULT mg/Kg	MDL (D) mg/Kg	Q
74-87-3	Chloromethane	U	0.204	
75-01-4	Vinyl Chloride	U	0.244	
75-00-3	Chloroethane	U	0.159	
74-83-9	Bromomethane	U	0.143	
67-64-1	Acetone	U	0.112	
75-35-4	1,1-Dichloroethene	U	0.049	
75-09-2	Methylene Chloride	U	0.040	
75-15-0	Carbon Disulfide	U	0.048	
156-60-5	1,2-Dichloroethene (trans)	U	0.025	
156-59-2	1,2-Dichloroethene (cis)	U	0.030	
75-34-3	1,1-Dichloroethane	U	0.014	
78-93-3	2-Butanone	0.750	0.358	B
67-66-3	Chloroform	U	0.021	
107-06-2	1,2-Dichloroethane	U	0.029	
71-55-6	1,1,1-Trichloroethane	U	0.013	
71-43-2	Benzene	U	0.018	
56-23-5	Carbon Tetrachloride	U	0.026	
78-87-5	1,2-Dichloropropane	U	0.017	
75-27-4	Bromodichloromethane	U	0.013	
79-01-6	Trichloroethene	U	0.020	
10061-01-5	cis-1,3-Dichloropropene	U	0.013	
591-78-6	2-Hexanone	U	0.168	
10061-02-6	trans-1,3-Dichloropropene	U	0.057	
79-00-5	1,1,2-Trichloroethane	U	0.011	
108-88-3	Toluene	U	0.011	
108-10-1	4-Methyl-2-Pentanone	U	0.143	
124-48-1	Dibromochloromethane	U	0.016	
79-34-5	1,1,2,2-Tetrachloroethane	U	0.023	
127-18-4	Tetrachloroethene	U	0.023	
108-90-7	Chlorobenzene	U	0.024	
100-41-4	Ethylbenzene	U	0.024	
75-25-2	Bromoform	U	0.023	
100-42-5	Styrene	U	0.015	
1330-20-7	Total Xylenes	U	0.020	

QUALIFIERS (Q): U-NOT DETECTED
B-PRESENT IN LAB BLANK

D-MDL's ARE BASED ON DILUTION FACTOR OF 125

FORM I VOA

VOLATILE SURROGATE		% RECOVERY	QC-LIMITS
1,2-Dichloroethane-d4	SS#1	97%	70-121%
Toluene-d8	SS#2	95%	84-138%
Bromofluorobenzene	SS#3	89%	59-113%

AllService Testing

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILE ORGANICS

LAB SAMPLE ID: 11014

CONCENTRATION UNITS
mg/Kg

Number TIC's found : 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	32.15	4.4	B 1
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

QUALIFIERS: 1 - Calculated versus nearest eluting internal standard as a simple ratio/proportion.

DRY WEIGHT BASIS
%SOLIDS: 100.0%

B - Present in laboratory reagent blank.

AllService Testing

BASE/NEUTRALS ORGANIC GC/MS REPORT

CLIENT NAME : S & S ENVIRONMENTAL
LAB SAMPLE ID : 11014
CLIENT SAMPLE ID: 98-109

MATRIX :SOIL
DATE EXTRACTED:08/14/98
DATE ANALYZED:08/21/98

CAS NUMBER	COMPOUND	RESULT mg/Kg		MDL mg/Kg	U
111-44-4	bis(2-chloroethyl)ether	U		0.11	
541-73-1	1,3-Dichlorobenzene	U		0.03	
106-46-7	1,4-Dichlorobenzene	U		0.03	
95-50-1	1,2-Dichlorobenzene	U		0.04	
100-51-6	Benzyl alcohol	U		0.06	
39638-32-9	bis(2-chloroisopropyl)ether	U		0.13	
67-72-1	Hexachloroethane	U		0.04	
621-64-7	n-Nitroso-di-n-propylamine	U		0.04	
98-95-3	Nitrobenzene	U		0.03	
78-59-1	Isophorone	U		0.03	
111-91-1	bis(2-chloroethoxy)methane	U		0.03	
120-82-1	1,2,4-Trichlorobenzene	U		0.03	
91-20-3	Naphthalene	U		0.03	
106-47-8	4-Chloroaniline	U		0.05	
87-68-3	Hexachlorobutadiene	U		0.04	
91-57-6	2-Methylnaphthalene	U		0.05	
77-47-4	Hexachlorocyclopentadiene	U		0.03	
91-58-7	2-Chloronaphthalene	U		0.03	
88-74-4	2-Nitroaniline	U		0.04	
208-96-8	Acenaphthylene	U		0.03	
131-11-3	Dimethyl phthalate	U		0.03	
606-20-2	2,6-Dinitrotoluene	U		0.03	
121-14-2	2,4-Dinitrotoluene	U		0.03	
99-09-2	3-Nitroaniline	U		0.29	
83-32-9	Acenaphthene	U		0.03	
132-64-9	Dibenzofuran	U		0.04	
86-73-7	Fluorene	U		0.03	
84-66-2	Diethyl phthalate	U		0.03	
7005-72-3	4-Chlorophenylphenyl ether	U		0.04	
100-01-6	4-Nitroaniline	U		0.12	
86-30-6	n-Nitrosodiphenylamine	U		0.03	
101-55-3	4-Bromophenylphenyl ether	U		0.03	
118-74-1	Hexachlorobenzene	U		0.05	

AllService Testing-

BASE/NEUTRALS ORGANIC GC/MS REPORT
CONTINUED

CLIENT NAME : S & S ENVIRONMENTAL
LAB SAMPLE ID : 11014
CLIENT SAMPLE ID: 98-109

MATRIX :SOIL
DATE EXTRACTED:08/14/98
DATE ANALYZED:08/21/98

CAS NUMBER	COMPOUND	RESULT mg/Kg	MDL mg/Kg	Q
85-01-8	Phenanthrene	U	0.02	
120-12-7	Anthracene	U	0.02	
86-74-8	Carbazole	U	0.16	
84-74-2	Di-n-butyl phthalate	U	0.02	
206-44-0	Fluoranthene	U	0.03	
92-87-5	Benzidine	U	0.15	
129-00-0	Pyrene	U	0.04	
85-68-7	Butyl benzyl phthalate	U	0.04	
56-55-3	Benzo[a]anthracene	U	0.03	
91-94-1	3,3'-Dichlorobenzidine	U	0.07	
218-01-9	Chrysene	U	0.04	
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.04	
117-84-0	Di-n-octyl phthalate	U	0.06	
205-99-2	Benzo[b]fluoranthene	U	0.05	
207-08-9	Benzo[k]fluoranthene	U	0.07	
50-32-8	Benz[a]pyrene	U	0.05	
193-39-5	Indeno[1,2,3-cd]pyrene	U	0.05	
53-70-3	Dibenzo[a,h]anthracene	U	0.06	
191-24-2	Benzo[g,h,i]perylene	U	0.06	

QUALIFIERS (Q):

U-NOT DETECTED
DRY WEIGHT BASIS
%SOLID 100

BASE NEUTRAL SURROGATE	% RECOVERY	QC-LIMITS
Nitrobenzene-d5	44 %	23-120 %
2-Fluorobiphenyl	86 %	30-115 %
Terphenyl-d14	115 %	18-137 %

AllService Testing-

ACID EXTRACTABLES ORGANIC GC/MS REPORT

CLIENT NAME : S & S ENVIRONMENTAL
LAB SAMPLE ID : 11014
CLIENT SAMPLE ID: 98-109

MATRIX :SOIL
DATE EXTRACTED:08/14/98
DATE ANALYZED :08/21/98

CAS NUMBER	COMPOUND	RESULT mg/Kg	MDL mg/Kg	Q
108-95-2	Phenol	U	0.14	
95-57-8	2-Chlorophenol	U	0.07	
95-48-7	2-Methylphenol	U	0.04	
106-44-5	4-Methylphenol	U	0.03	
88-75-5	2-Nitrophenol	U	0.10	
105-67-9	2,4-Dimethylphenol	U	0.08	
120-83-2	2,4-Dichlorophenol	U	0.08	
59-50-7	4-Chloro-3-methylphenol	U	0.07	
88-06-2	2,4,6-Trichlorophenol	U	0.10	
95-95-4	2,4,5-Trichlorophenol	U	0.10	
51-28-5	2,4-Dinitrophenol	U	0.15	
100-02-7	4-Nitrophenol	U	0.16	
534-52-1	4,6-Dinitro-o-cresol	U	0.06	
87-86-5	Pentachlorophenol	U	0.12	

QUALIFIERS (Q):

U-NOT DETECTED
DRY WEIGHT BASIS
%SOLID 100

FORM I SV-3

ACID SURROGATE RECOVERY	%RECOVERY	QC LIMITS
2-Fluorophenol	43 %	24-113%
Phenol-d5	53 %	25-121%
2,4,6-Tribromophenol	60 %	19-122%

AllService Testing

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILE ORGANICS

LAB SAMPLE ID: 11014

CONCENTRATION UNITS
mg/Kg

Number TIC's found : 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	8.70	0.2	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					

QUALIFIERS:

DRY WEIGHT BASIS
%SOLIDS: 100.00%

AllService Testing

PESTICIDES & PCB'S REPORT

CLIENT NAME : S & S ENVIRONMENTAL
LAB SAMPLE ID : 11014
CLIENT SAMPLE ID: 98-109

MATRIX : SOIL
DATE EXTRACTED: 08/14/98
DATE ANALYZED : 08/21/98

CAS NUMBER	COMPOUND	RESULT mg/Kg		MDL mg/Kg	Q
319-84-6	alpha-BHC	U		0.001	
319-85-7	beta-BHC	U		0.001	
58-89-9	gamma-BHC	U		0.001	
319-86-8	delta-BHC	U		0.001	
76-44-8	Heptachlor	U		0.001	
309-00-2	Aldrin	U		0.001	
1024-57-3	Heptachlor Epoxide	U		0.001	
959-98-8	Endosulfan I	U		0.001	
72-55-9	4,4'-DDE	U		0.002	
60-57-1	Dieldrin	U		0.001	
72-20-8	Endrin	U		0.002	
33213-65-9	Endosulfan II	U		0.002	
72-54-8	4,4'-DDD	U		0.002	
7241-93-4	Endrin Aldehyde	U		0.002	
1031-07-8	Endosulfan Sulfate	U		0.002	
50-29-3	4,4'-DDT	U		0.002	
72-43-5	Methoxychlor	U		0.001	
57-74-9	Chlordane	U		0.001	
8001-35-2	Toxaphene	U		0.045	
12674-11-2	Aroclor_1016	U		0.026	
11104-28-2	Aroclor_1221	U		0.013	
11141-16-5	Aroclor_1232	U		0.016	
53469-21-9	Aroclor_1242	U		0.036	
12672-29-6	Aroclor_1248	U		0.025	
11097-69-1	Aroclor_1254	U		0.016	
11096-82-5	Aroclor_1260	U		0.034	

QUALIFIERS (Q): U-NOT DETECTED

AllService Testing

VOLATILE ORGANIC GC/MS REPORT

CLIENT NAME : S & S Environmental
LAB SAMPLE ID : BLANK
CLIENT SAMPLE ID: BLANK

MATRIX : SOIL
DATE ANALYZED: 08/15/98

CAS NUMBER	COMPOUND	RESULT mg/Kg	MDL (D) mg/Kg	Q
74-87-3	Chloromethane	U	0.0816	
75-01-4	Vinyl Chloride	U	0.0974	
75-00-3	Chloroethane	U	0.0635	
74-83-9	Bromomethane	U	0.0571	
67-64-1	Acetone	U	0.0447	
75-35-4	1,1-Dichloroethene	U	0.0196	
75-09-2	Methylene Chloride	U	0.0159	
75-15-0	Carbon Disulfide	U	0.0194	
156-60-5	1,2-Dichloroethene (trans)	U	0.0101	
156-59-2	1,2-Dichloroethene (cis)	U	0.0118	
75-34-3	1,1-Dichloroethane	U	0.0057	
78-93-3	2-Butanone	0.350	0.1430	
67-66-3	Chloroform	U	0.0082	
107-06-2	1,2-Dichloroethane	U	0.0115	
71-55-6	1,1,1-Trichloroethane	U	0.0050	
71-43-2	Benzene	U	0.0071	
56-23-5	Carbon Tetrachloride	U	0.0103	
78-87-5	1,2-Dichloropropane	U	0.0068	
75-27-4	Bromodichloromethane	U	0.0051	
79-01-6	Trichloroethene	U	0.0078	
10061-01-5	cis-1,3-Dichloropropene	U	0.0051	
591-78-6	2-Hexanone	U	0.0673	
10061-02-6	trans-1,3-Dichloropropene	U	0.0228	
79-00-5	1,1,2-Trichloroethane	U	0.0042	
108-88-3	Toluene	U	0.0043	
108-10-1	4-Methyl-2-Pentanone	U	0.0572	
124-48-1	Dibromochloromethane	U	0.0065	
79-34-5	1,1,2,2-Tetrachloroethane	U	0.0092	
127-18-4	Tetrachloroethene	U	0.0092	
108-90-7	Chlorobenzene	U	0.0094	
100-41-4	Ethylbenzene	U	0.0095	
75-25-2	Bromoform	U	0.0092	
100-42-5	Styrene	U	0.0061	
1330-20-7	Total Xylenes	U	0.0080	

QUALIFIERS (Q): U-NOT DETECTED

D-MDL's ARE BASED ON DILUTION FACTOR OF 50

FORM I VOA

VOLATILE SURROGATE		% RECOVERY	QC-LIMITS
1,2-Dichloroethane-d4	SS#1	94%	70-121%
Toluene-d8	SS#2	96%	84-138%
Bromofluorobenzene	SS#3	91%	59-113%

AllService Testing

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILE ORGANICS

LAB SAMPLE ID: BLANK
08/15/98

CONCENTRATION UNITS
mg/Kg

Number TIC's found : 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	32.17	1.3	1
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

QUALIFIERS: 1 - Calculated versus nearest eluting internal standard as a simple ratio/proportion.

AllService Testing

BASE/NEUTRALS ORGANIC GC/MS REPORT

CLIENT NAME : S & S ENVIRONMENTAL
LAB SAMPLE ID : EXTRACTED BLANK
CLIENT SAMPLE ID: EXTRACTED BLANK

MATRIX :SOIL
DATE EXTRACTED:08/14/98
DATE ANALYZED:08/21/98

CAS NUMBER	COMPOUND	RESULT mg/Kg	MDL mg/Kg	Q
111-44-4	bis(2-chloroethyl)ether	U	0.11	
541-73-1	1,3-Dichlorobenzene	U	0.03	
106-46-7	1,4-Dichlorobenzene	U	0.03	
95-50-1	1,2-Dichlorobenzene	U	0.04	
100-51-6	Benzyl alcohol	U	0.06	
39638-32-9	bis(2-chloroisopropyl)ether	U	0.13	
67-72-1	Hexachloroethane	U	0.04	
621-64-7	n-Nitroso-di-n-propylamine	U	0.04	
98-95-3	Nitrobenzene	U	0.03	
78-59-1	Isophorone	U	0.03	
111-91-1	bis(2-chloroethoxy)methane	U	0.03	
120-82-1	1,2,4-Trichlorobenzene	U	0.03	
91-20-3	Naphthalene	U	0.03	
106-47-8	4-Chloroaniline	U	0.05	
87-68-3	Hexachlorobutadiene	U	0.04	
91-57-6	2-Methylnaphthalene	U	0.05	
77-47-4	Hexachlorocyclopentadiene	U	0.03	
91-58-7	2-Chloronaphthalene	U	0.03	
88-74-4	2-Nitroaniline	U	0.04	
208-96-8	Acenaphthylene	U	0.03	
131-11-3	Dimethyl phthalate	U	0.03	
606-20-2	2,6-Dinitrotoluene	U	0.03	
121-14-2	2,4-Dinitrotoluene	U	0.03	
99-09-2	3-Nitroaniline	U	0.29	
83-32-9	Acenaphthene	U	0.03	
132-64-9	Dibenzofuran	U	0.04	
86-73-7	Fluorene	U	0.03	
84-66-2	Diethyl phthalate	U	0.03	
7005-72-3	4-Chlorophenylphenyl ether	U	0.04	
100-01-6	4-Nitroaniline	U	0.12	
86-30-6	n-Nitrosodiphenylamine	U	0.03	
101-55-3	4-Bromophenylphenyl ether	U	0.03	
118-74-1	Hexachlorobenzene	U	0.05	

FORM I SV-1

AllService Testing

BASE/NEUTRALS ORGANIC GC/MS REPORT
CONTINUED

CLIENT NAME : S & S ENVIRONMENTAL
LAB SAMPLE ID : EXTRACTED BLANK
CLIENT SAMPLE ID: EXTRACTED BLANK

MATRIX :SOIL
DATE EXTRACTED:08/14/98
DATE ANALYZED:08/21/98

CAS NUMBER	COMPOUND	RESULT mg/Kg	MDL mg/Kg	Q
85-01-8	Phenanthrene	U	0.02	
120-12-7	Anthracene	U	0.02	
86-74-8	Carbazole	U	0.16	
84-74-2	Di-n-butyl phthalate	U	0.02	
206-44-0	Fluoranthene	U	0.03	
92-87-5	Benzidine	U	0.15	
129-00-0	Pyrene	U	0.04	
85-68-7	Butyl benzyl phthalate	U	0.04	
56-55-3	Benzo[a]anthracene	U	0.03	
91-94-1	3,3'-Dichlorobenzidine	U	0.07	
218-01-9	Chrysene	U	0.04	
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.04	
117-84-0	Di-n-octyl phthalate	U	0.06	
205-99-2	Benzo[b]fluoranthene	U	0.05	
207-08-9	Benzo[k]fluoranthene	U	0.07	
50-32-8	Benz[a]pyrene	U	0.05	
193-39-5	Indeno[1,2,3-cd]pyrene	U	0.05	
53-70-3	Dibenzo[a,h]anthracene	U	0.06	
191-24-2	Benzo[g,h,i]perylene	U	0.06	

QUALIFIERS (Q):
U-NOT DETECTED
DRY WEIGHT BASIS

BASE NEUTRAL SURROGATE	% RECOVERY	QC-LIMITS
Nitrobenzene-d5	39 %	23-120 %
2-Fluorobiphenyl	100 %	30-115 %
Terphenyl-d14	109 %	18-137 %

AllService Testing

ACID EXTRACTABLES ORGANIC GC/MS REPORT

CLIENT NAME : S & S ENVIRONMENTAL
LAB SAMPLE ID : EXTRACTED BLANK
CLIENT SAMPLE ID: EXTRACTED BLANK

MATRIX :SOIL
DATE EXTRACTED:08/14/98
DATE ANALYZED :08/21/98

CAS NUMBER	COMPOUND	RESULT mg/Kg	MDL mg/Kg	Q
108-95-2	Phenol	U	0.14	
95-57-8	2-Chlorophenol	U	0.07	
95-48-7	2-Methylphenol	U	0.04	
106-44-5	4-Methylphenol	U	0.03	
88-75-5	2-Nitrophenol	U	0.10	
105-67-9	2,4-Dimethylphenol	U	0.08	
120-83-2	2,4-Dichlorophenol	U	0.08	
59-50-7	4-Chloro-3-methylphenol	U	0.07	
88-06-2	2,4,6-Trichlorophenol	U	0.10	
95-95-4	2,4,5-Trichlorophenol	U	0.10	
51-28-5	2,4-Dinitrophenol	U	0.15	
100-02-7	4-Nitrophenol	U	0.16	
534-52-1	4,6-Dinitro-o-cresol	U	0.06	
87-86-5	Pentachlorophenol	U	0.12	

QUALIFIERS (Q):

U-NOT DETECTED
DRY WEIGHT BASIS

FORM I SV-1

ACID SURROGATE RECOVERY	%RECOVERY	QC LIMITS
2-Fluorophenol	89 %	24-113%
Phenol-d5	83 %	25-121%
2,4,6-Tribromophenol	79 %	19-122%

AllService Testing

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILE ORGANICS

LAB SAMPLE ID: EXT BLANK
08/21/98

Number TIC's found : 2

CONCENTRATION UNITS
mg/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	8.48	0.3	
2.		UNKNOWN	8.67	0.3	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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15.					
16.					
17.					
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20.					
21.					
22.					
23.					
24.					
25.					

QUALIFIERS:

%SOLIDS:

FORM 1 SV-TIC

Page 1 of 1

ALLSERVICE TESTING, INC.
CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

NAME OF CLIENT : L&S

ADDRESS : 198 Yard Park Rd Cedar Grove NJ 07009

PHONE # : 973. 239-6001

PROJECT NAME/SRP ID : So. Amboy

REQUESTED TURNAROUND: 15 ~~Today~~ / Report

REPORT FORMAT: Red. deliverable

SAMPLE NO.	# OF BTLS	SAMPLING DATE/TIME/BY			MATRIX	POINT OF COLLECTION	PRESER-VATION	REQUESTED ANALYSIS
98-109	2	7/31/98	1100	SI	SAND	So Amboy.	—	PP+40*, Chlorides
								* PP metals analysis TCLP method

RELINQUISHED BY: Angela Presto (SIGN NAME)

Angela Presto (PRINT NAME)

RECEIVED BY: J. Bones (SIGN NAME)

J. BERRES (PRINT NAME)

DATE/TIME: 8/4/98/1445

REASON FOR CHANGE OF CUSTODY: For Analysis

COOLER TEMPERATURE 4°C

Post-it® Fax Note 7671	Date 8-25-98	# of pages ▶ 25
To ANGELA PRESTO	From GLORIA	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

ALLSERVICES TESTING, INC.

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

PHONE # : 973. 239-6001

PROJECT NAME/SRP ID : So Amboy

REQUESTED TURNAROUND: 15 ~~Day~~ / Report

REPORT FORMAT: Red. Deliverable

SAMPLE NO.	# OF BTLS	SAMPLING DATE/TIME/BY			MATRIX	POINT OF COLLECTION	PRESER-VATION	REQUESTED ANALYSIS
98-109	2	7/31/98	11 00	SF	SAND	So Amboy	—	PP+40*, Chlorides
								* PP Metals analysis TCLP method

RELINQUISHED BY: Angela Presto (SIGN NAME)

Angela Presto (PRINT NAME)

RECEIVED BY: J. Borres (SIGN NAME)

J. BERRES (PRINT NAME)

DATE/TIME: 8/4/98 1445

REASON FOR CHANGE OF CUSTODY: For Analysis

COOLER TEMPERATURE 4°C