

**Removal Action Closeout Report**  
**Study Area 4**  
**CED Asphalt Disposal Area**  
**NCBC Davisville, Rhode Island**

*Prepared for:*

Department of the Navy  
Northern Division  
Naval Facilities Engineering Command  
Lester, Pennsylvania

*Prepared by:*

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*Under contract with:*

EA Engineering, Science, and Technology  
Hunt Valley, Maryland

16 June 1997  
Contract No. N62472-92-D-1296  
Contract Task Order No. 0040

**FINAL**  
**REMOVAL ACTION CLOSEOUT REPORT**  
**STUDY AREA 4 - CED ASPHALT DISPOSAL AREA**

**NCBC DAVISVILLE, RI**

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NCBC DAVISVILLE, RI

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## QUALITY REVIEW STATEMENT

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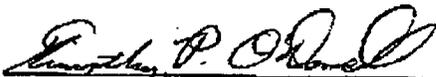
Description of Report/Deliverable:

Closeout Report for Study Area 4 - CED Asphalt Disposal Area at NCBC Davisville, RI

Stone & Webster Project Manager: Linda B. Gardiner

In compliance with Stone & Webster's Policy and Procedures for review of deliverables, this final deliverable has been reviewed for quality by the undersigned Senior Technical Reviewer. The information presented in this report/deliverable has been prepared in accordance with the approved scope of services for the project and reflects a proper presentation of the data and/or the conclusions drawn and/or the analyses or design completed during the conduct of the work. This statement is based upon the standards identified in the contract and/or the standard of care existing at the time of preparation.

Senior Technical Reviewer



Timothy P. O'Donnell, P.E.  
Senior Geotechnical Engineer

June 16, 1997  
Date

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## 1.0 INTRODUCTION AND BACKGROUND

### 1.1 Introduction

Under Contract No. N62472-92-D-1296, Northern Division, Naval Facilities Engineering Command (Northern Division), issued Contract Task Order (CTO) No. 0040 to EA Engineering, Science and Technology (EA) to prepare a Closeout Report for the Construction Equipment Division (CED) Asphalt Disposal Area (Study Area 4) at the former Naval Construction Battalion Center (NCBC) Davisville, Rhode Island. The objective of this part of the CTO is to document the removal action performed by the Navy's Remedial Action Contractor (RAC), Foster Wheeler Environmental Corporation (Foster Wheeler). EA has authorized Stone & Webster Environmental Technology & Services (Stone & Webster) to prepare the Closeout Report for this study area.

An additional report is currently being prepared by Foster Wheeler. The *Contractor's Close-Out Report For The Removal Action At Study Area 4, Naval Construction Battalion Center (NCBC) Davisville, Rhode Island* (Contractor's Close-Out Report), dated April 1997, contains additional information about the chronology of events, work performed, and analytical testing. The Contractor's Close-Out Report serves as a removal action documentation report from the RAC performing the removal action activities and is available at the Caretaker Site Office (CSO) Davisville. The Contractor's Close-Out Report also contains record documents, including analytical laboratory reports, field change requests and delivery order modifications. While the complete analytical data set is not included with this removal action closeout report, summary tables have been provided. The full analytical data set has been provided by Foster Wheeler to those members of the Base Realignment and Closure (BRAC) Cleanup Team (BCT) who had previously requested copies. The full analytical data set is also available at the CSO at NCBC.

### 1.2 Site History and Description

NCBC Davisville is located west of Narragansett Bay in North Kingstown, Rhode Island, off of State Route 403. A site locus map is included as Figure 1.

NCBC Davisville was primarily used for training Naval personnel in construction operations, and as storage and freight yards for construction materials. As a result, the base is comprised primarily of warehouse space and freight yards, most of which are empty. NCBC Davisville officially closed on April 1, 1994. Most of the staff and materials have been moved off-site. Facilities management and security staff engaged with base closure activities remain on base.

The study area is located in and surrounded by NCBC Davisville. Study Area 4 is a trench located in the north central area of the Main Center of NCBC Davisville approximately 800 feet west of Building 224. Battalion Boulevard is located approximately 80 feet south of the trench, and Leave Street is located approximately 250 feet to the east. The trench is oriented parallel to Battalion Boulevard. North, west, and east of the area is flat, open, and sparsely vegetated land. A site plan is provided as Figure 2.

Study Area 4 consists of an open trench which contained two piles of asphaltic resulting from the CED Asphalt Disposal Area. The Comprehensive Base Reuse Plan for NCBC Davisville specifies the area in which Study Area 4 is located is to be used for economic and industrial development.

The CED Asphalt Disposal Area consists of an open trench, approximately 600 to 700 feet in length, 8 to 15 feet wide, and 2 to 5 feet in depth. In general, the trench becomes narrower and shallower from the eastern to western end. According to the *Study Area Screening Evaluation (SASE)*, prepared by Halliburton NUS, September 1994, a partially filled or collapsed culvert is present at the western end of the trench where the trench formerly discharged to a small stream. The culvert appears to be in disrepair and it appears the trench is no longer hydraulically connected to the stream.

Ground water at Study Area 4 generally flows to the east, and it is assumed that surface water runoff parallels the direction of ground water flow. As the culvert is located in the western end of the trench, the area of the asphaltic material disposal is located downgradient of the culvert. Therefore, the potential for the migration of the constituents of concern from the asphaltic material to the stream does not exist.

The area of concern at this study area was the eastern 150 feet of the trench where asphaltic material was disposed of in two distinct areas of the trench. One asphaltic material disposal area was approximately 19.5 feet by 9.5 feet and 3 to 4 feet in depth, and the other area was 45 feet by 9.5 feet and 1 to 2 feet in depth, according to the *Initial Assessment Study (IAS)*, prepared by Fred C. Hart Associates in 1984.

The asphaltic material was described as non-hazardous and insoluble in water in both the SASE and in the *Initial Assessment Study (IAS)*, prepared by Fred C. Hart Associates in 1984, therefore the potential for the constituents in the material to migrate via surface water runoff or leachability was deemed negligible.

Ground water beneath Study Area 4 is currently being investigated with Installation Restoration (IR) Program Sites 2 and 3 (Sites 2 and 3) and Study Area 1 ground water. Any actions proposed for the ground water at Study Area 4 would be included in the Proposed Remedial Action Plan (Proposed Plan) for the geographic area including Sites 2 and 3 and Study Area 1. This Proposed Plan is expected to be released to the public in the summer of 1998.

### 1.3 Community Relations

On June 3, 1996 the Navy provided public notice of construction activities at the site. The Navy has also conducted Restoration Advisory Board (RAB) meetings on March 14, June 13, August 15, October 10, and December 12, 1996, and March 13, 1997 which included removal activity updates for the public. All documents supporting the removal action decision have been available at the information repositories at the North Kingstown Public Library and CSO Davisville.

#### 1.4 Natural Resource Trustee Notification

On May 17, 1991 the Department of the Navy sent written notification to the Department of the Interior and the Department of Commerce of the potential damages to natural resources resulting from releases under investigation at NCBC Davisville.

#### 1.5 Removal Costs

As stated in the *Action Memorandum for Sites 02 and 13 and Study Area 4 at NCBC Davisville, Rhode Island* (the Action Memorandum) dated May 23, 1996, this removal was estimated by TRC Environmental Corporation (TRC) to cost approximately \$60,000. While the final invoices have not yet been submitted, the total cost for this effort is estimated to be approximately \$137,000. A breakdown of the cost for the removal action is presented in Table 1.

## 2.0 REMOVAL AND DISPOSAL ACTIVITIES

The removal action at Study Area 4, the CED Asphalt Disposal Area, was performed from May 1996 through January 1997. The removal action involved the excavation and off-site disposal of asphaltic material and adjacent soil. The removal action at Study Area 4 was performed to comply with the Rhode Island General Law (RIGL) 23-18.9-5. This regulation requires removal and disposal of solid waste greater than three (3) cubic yards, which includes the asphaltic material at Study Area 4. The following section further presents the removal activities. Sampling and analysis of the soil was performed for waste characterization, and the waste materials were disposed off-site.

RAC activities at Study Area 4 included the excavation and off-site disposal of asphaltic material and adjacent soil. Soil removal activities ceased when analytical results from confirmatory soil samples collected from the completed excavation were within the direct exposure criteria of 10 parts per million (ppm) polychlorinated biphenyls (PCB), as promulgated in the revised *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (Remediation Regulations), prepared by the Rhode Island Department of Environmental Management (RIDEM) Division of Site Remediation, and 300 ppm total petroleum hydrocarbons (TPH) as stated in the Action Memorandum.

Several rounds of confirmatory sampling were performed, as presented in the following section. Tables 3 through 7 summarize the analytical results of the confirmatory sampling. Figure 4 presents the sampling locations, and Appendix C presents photodocumentation of the removal action activities.

The excavation was backfilled with suitable off-site fill material, which satisfied the requirements stated in the draft *Non-Time Critical Removal Action For Study Area 4 At CBC Davisville, Rhode Island* (the Removal Action document), prepared by Stone & Webster, dated 17 August 1995, as presented in Section 4.1, and rough graded. A sample of the backfill material was collected and analyzed to ensure the characteristics of the material were within approved criteria. The sample was analyzed for inorganics, volatile organic compounds (VOC), semivolatile organic compounds (SVOC), pesticides, PCB, and TPH. A summary of the analytical results of the backfill material sample is presented in Table 9. Seeding of the area was performed in May 1997. Representative photographs, taken before, during and after completion of the removal action, are included in Appendix C. Color photographs are also available at the CSO.

### 2.1 Asphaltic Material and Soil Excavation

Asphaltic material and adjacent soil were removed with a CAT 235 excavator. Figures 3 and 4 present the area of excavation. As the waste was removed, it was loaded directly into roll-off containers with a Case 580 backhoe. The removal action proceeded in several stages. Initial excavation activities included the removal of the asphaltic material and adjacent soil. Confirmatory soil samples were collected from the floor and sidewalls of the excavation as

presented in Sections 3.1 and 3.2. As confirmatory sample results indicated the need for further excavation, additional soil was removed. Field screening results were used to direct further soil excavation. Confirmatory sampling locations are presented on Figure 4.

Excavation activities began with the removal of the asphaltic material, which was approximately 6 inches thick in most areas. Initially, the western area was excavated to a length of 40 feet, a width of 10 feet, and a depth of 6 inches, while the eastern area was excavated to a length of 20 feet, a width of 10 feet, a depth of 6 inches on the eastern half, and a depth of 2 feet on the western half. The area of excavation is presented on Figures 3 and 4. Confirmatory soil samples were collected after the asphaltic material was removed, and analyzed for PCB and TPH as described in Section 3.2. Field screening was not required during the removal of the asphaltic material, as the characterization of the asphaltic material had previously been performed.

Analytical results of the first round of confirmatory samples indicated the presence of PCB and TPH in remaining soil at concentrations greater than the established cleanup criteria of 10 ppm and 300 ppm, respectively, as presented on Table 3. Therefore, the western excavation was further excavated 2.5 feet laterally on all sides and 1 foot vertically at the base. The eastern excavation was further excavated 5 feet to the south, 5 feet to the east, and an additional 1 foot in depth in the vicinity of sample SA4-SS1FL-110896 (SS1FL). Two additional areas of visibly stained soil were also excavated, one between the two excavations, and one west of the western excavation. A second round of confirmatory soil samples was collected and analyzed for PCB and TPH as described in Section 3.2.

Analytical results of the second round of confirmatory samples indicated the presence of PCB and TPH in remaining soil at concentrations greater than the established cleanup criteria, as presented on Table 4. Therefore, the main western excavation was again excavated 1 foot laterally on the eastern side and a portion of the southern side (in the vicinity of samples SS12ASW and SS13ASW), and 1 foot vertically at the base (in the vicinity of samples SS5AFL, SS6AFL, and SS7AFL). Field screening for TPH was performed, as described in Section 3.1, during the third round of excavation and sampling. A third round of confirmatory soil samples was collected and analyzed for PCB and TPH as described in Section 3.2.

Field screening results during the third round of confirmatory samples indicated the presence of TPH in remaining soil at concentrations greater than the established cleanup criteria, as presented on Table 5. The main western excavation was again expanded 1 foot laterally on the eastern side and a portion of the southern side (in the vicinity of samples SW12B and SW13B) and 1 foot vertically at the base (in the vicinity of samples SS5BFL and SS6BFL).

Removal activities resulted in two main excavations and two smaller excavations, as indicated on Figure 4. The excavations were confirmed clean, as specified herein, by nine soil samples collected from the floor of the excavation and six soil samples collected from the sidewalls of the excavation, as presented in Table 7.

## 2.2 Waste Disposal

A total of 196.13 tons of asphaltic material and related soil were transported in 11 roll-off containers to an off-site disposal facility. All drums of waste generated during the removal action were removed from the site and transported to an off-site facility for final disposal.

All wastes generated as a result of the removal action at Study Area 4 have been removed and disposed at Navy and Foster Wheeler approved facilities. Foster Wheeler subcontracted Advanced Environmental Technical Services (AETS), located in Marlboro, Massachusetts, to provide waste characterization of the asphaltic material and transportation and disposal services for this removal action. The transporter, disposal facility, disposal technologies, and quantities for each waste stream are presented in Table 2.

Copies of the Bills of Lading and other receipt documentation, as well as signed waste manifests, have been included in Appendix B.

### 3.0 SAMPLING AND ANALYTICAL RESULTS

The evaluation criterion for PCB is established in the revised Remediation Regulations, prepared by RIDEM Division of Site Remediation. Post-removal, or confirmatory, soil samples were collected from the completed excavation to confirm that the levels of PCB and TPH in the remaining soil did not exceed the established site cleanup criteria of 10 ppm and 300 ppm, respectively, as presented in Table 7. In addition, waste stream characterization was performed for off-site disposal purposes.

Both field screening and laboratory analysis were performed to support soil removal associated with the removal action. All analytical laboratory services were provided by National Environmental Testing, Inc. (NET), Cambridge Division. The field sampling program was conducted in such a manner as to ensure that the chemical data would meet the *Navy Installation Restoration Laboratory Quality Assurance Guide*, dated February 1996, requirements for completeness, precision, accuracy, representativeness, comparability, dependability, and legal defensibility.

#### 3.1 Immunoassay Field Screening

Soil sampling and field screening was performed on the soil remaining in the sidewalls and floor of the excavation upon completion of the removal of the asphaltic material from the trench. Field screening was performed during Round III and Round IV of confirmatory sampling in conjunction with laboratory analysis. Field screening results were used to direct further soil excavation. Soil samples were collected and field screened for PCB and TPH as described below.

Field screening for PCB was performed by the Environmental Protection Agency (EPA) approved Method 4020, an immunoassay method for field screening of soil samples for PCB. This method was also recently employed during the removal action at Site 13, as described in a letter regarding PCB Field Sampling at Site 13, prepared by Foster Wheeler on July 26, 1996. The assay uses antibodies and enzyme conjugate systems to provide the basis for a calorimetric result which is inversely proportional to the amount of analyte in a given sample. The color resulting from the presence of an analyte in the sample is measured versus a color developed from a standard to provide semi-quantitative results. The detection limit for PCB using this procedure is 1 ppm. A Standard Operating Procedure (SOP) is included in the aforementioned letter written by Foster Wheeler.

Field screening for TPH was performed using PetroFLAG™ test kits, developed by Dexsil Corporation. According to Dexsil, PetroFLAG™ has received SW-846 draft method approval number 9074 from the EPA. Hydrocarbons are detected through a three step process, which involves solvent extraction, filtering of particulate matter, and aqueous development of the sample. When the developing solution is added to the soil extract, a reaction occurs and a response is developed. The response is in proportion to the amount of hydrocarbon contained within the sample. The absorbance of the mixture is measured with the turbidimeter, and the

reading is converted into concentration in ppm of petroleum hydrocarbons. The detection range is from 10 to 20,000 ppm.

Five Round III confirmatory soil samples were collected in locations which exhibited elevated levels of TPH in the previous round of sampling. The samples were first field screened for TPH using Dexsil PetroFLAG kits. Two of the five samples exhibited a TPH concentration less than 300 ppm and were considered to be clean. These samples were sent to the analytical laboratory for confirmation. Two of the five Round III confirmatory samples contained elevated levels of TPH, and were further excavated. Results of one of the samples (SS13BSW) yielded a concentration of TPH which was out of the calibration range. This sidewall location was further excavated as described in Section 2.0. Table 5 summarizes the field screening results.

Final excavation activities occurred and three Round IV confirmatory soil samples and one duplicate were collected. The samples were first field screened for TPH using Dexsil PetroFLAG kits. All samples exhibited a TPH concentration less than 300 ppm and were sent to the analytical laboratory for confirmation. All of the samples passed the field screening and were sent to the analytical laboratory for confirmation. Field screening results of Round IV samples are presented on Table 6. Confirmatory sampling locations are presented on Figure 4.

### **3.2 Confirmatory Sampling and Results**

Confirmatory soil samples were collected from the completed excavation and analyzed at an off-site laboratory to ensure that the established site cleanup criteria of 10 ppm PCB and 300 ppm TPH was satisfied. Table 7 presents a summary of the results of the final confirmatory samples.

Round I confirmatory soil samples were collected at a frequency of one for every 80 square feet of excavation floor and one for every 30 linear feet of sidewall. A total of seven confirmatory soil samples were collected from the floor of the excavation and six soil samples and one duplicate were collected from the sidewalls of the excavation during Round I. Samples were analyzed for PCB using EPA Method 8080, and for TPH using EPA Method 418.1. Nine of the thirteen soil samples contained elevated levels of TPH, with the maximum detected concentration being 4,400 ppm. One of the floor samples (SS7FL) contained PCB at a concentration slightly greater than the cleanup criterion of 10 ppm, at a level of 11 ppm. Table 3 summarizes the analytical laboratory results. The confirmatory sampling locations are presented on Figure 4.

Eleven Round II confirmatory soil samples and one duplicate were collected and analyzed for PCB and TPH in the same manner as the Round I samples. Nine of the eleven Round II samples were collected from locations which contained elevated levels of TPH and PCB in the Round I samples. The two remaining samples were collected from areas which appeared to be visually stained, as described in Section 2.1. Five of the Round II confirmatory samples collected from the excavated area contained elevated levels of TPH, and one of the Round II confirmatory samples contained an elevated PCB concentration. Analytical results of both of the soil samples collected from the visually stained areas yielded TPH and PCB concentrations within the established site cleanup

criteria. Table 4 summarizes the analytical laboratory sample results. The confirmatory sampling locations are presented on Figure 4.

Two of the five Round III confirmatory samples were sent to the analytical laboratory for confirmation. Analytical laboratory results for the two samples and a duplicate yielded PCB and TPH concentrations within the established cleanup criteria. Table 5 summarizes the analytical laboratory sample results. The confirmatory sampling locations are presented on Figure 4.

Three Round IV confirmatory soil samples and one duplicate were collected. The samples were first field screened for TPH using Dexsil PetroFLAG kits. All samples exhibited a TPH concentration less than 300 ppm and were sent to the analytical laboratory for confirmation. The samples were analyzed for PCB and TPH as described herein. All analytical laboratory results were within the established cleanup criteria. Table 6 summarizes the analytical laboratory sample results. The confirmatory sampling locations are presented on Figure 4.

Post-excavation confirmatory soil sampling was performed in accordance with the Removal Action document with revisions as stated in the Action Memorandum, both prepared by Stone & Webster, dated 17 August 1995 and 23 May 1996, respectively.

### 3.3 Waste Stream Characterization

Sampling and analysis of waste generated during removal action activities, including asphaltic material, soil and personal protective equipment (PPE), was performed for waste characterization purposes prior to removal and transportation to the proper off-site disposal facility.

The transportation and disposal subcontractor, AETS, was responsible for characterizing the asphaltic material. AETS collected samples of the excavated materials for waste characterization. The asphaltic material was characterized as non-hazardous material with a TPH concentration of approximately 800,000 ppm. PCB, cyanide, and sulfide were not detected in the material. Physical and chemical properties of the material, including pH, specific gravity, and flash point were also analyzed. Table 7 presents waste stream characterization information. The characterization reports are included with the disposal documentation in Appendix B.

Composite samples were collected from the containerized PPE, such that the samples were representative of the contents in the drum. The samples were placed in appropriately labeled containers and analyzed for PCB by EPA Method 8080 and TPH by Method 418.1. Two samples of PPE were collected by the RAC for waste characterization prior to off-site disposal. PCB was detected in one sample at a concentration of 0.2 ppm, and TPH was detected in one sample at a concentration of 1800 ppm. Table 8 summarizes the analytical laboratory sample results. Appendix B includes the disposal documentation for the off-site disposal of the PPE.

### **3.4 Analytical Results**

A summary of the analytical results from the soil sampling is provided in Tables 3 through 6. Table 7 presents a summary of the final confirmatory sample results. A summary of the waste characterization results is presented in Table 8. Table 9 presents a summary of the analytical results of the fill material sample. The complete laboratory analytical data, included with the Contractor's Close-Out Report, was provided to the Navy and the EPA and is available at the CSO in the Administrative Building at NCBC Davisville.

## **4.0 SITE RESTORATION**

### **4.1 Backfilling and Grading**

Upon completion of removal activities, the excavated area was backfilled with suitable off-site fill material and compacted to grade in accordance with the requirements set forth in the Removal Action document. This fill material was obtained from Richmond Sand and Gravel, Inc. located in Wyoming, Rhode Island.

The fill was analyzed and compacted, as required in the Removal Action document. The imported clean fill material was sampled and analyzed in accordance with the requirements set forth in the RIDEM Remediation Regulations. Fill material was analyzed for Target Compound List (TCL) organics (including VOC, SVOC, pesticides, and PCB), Target Analyte List (TAL) inorganics, and TPH. The analytical results for the clean fill sample were within the guidelines for residential direct exposure established in the RIDEM Remediation Regulations. Table 9 presents a summary of the analytical results of the clean fill sample. The backfilled areas were compacted and graded to existing grade.

Upon completion of removal action activities and backfilling of the excavation, the high visibility fencing, caution signs, site trailers, and other equipment were removed.

### **4.2 Seeding and Site Restoration**

Upon completion of removal action activities and backfilling of the excavation, the high visibility fencing and other construction equipment were removed. Seeding was performed in May 1997.

## 5.0 CONCLUSIONS

Removal action activities at Study Area 4 have been completed as presented herein. The asphaltic material has been removed in accordance with the Rhode Island Solid Waste Regulations. Analytical results of confirmatory soil samples were below the established site cleanup criteria of 10 ppm PCB and 300 ppm TPH. In addition, the presence of beryllium and lead in soil at Study Area 4 will be addressed as part of the Remedial Investigation (RI) for Sites 2, 3 and Study Areas 1 and 4. Transportation and off-site disposal of waste generated during the removal action activities has been completed. The area of excavation has been backfilled with approved off-site clean fill material and compacted to grade. Seeding of the area was performed in May 1997. As the removal action for the CED Asphalt Disposal Area was performed to comply with RIGL, no further action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is warranted for the soil at Study Area 4.

**6.0 APPROVAL**

This closeout report represents the selected removal actions for the CED Asphalt Disposal Area (Study Area 4) at the Naval Construction Battalion Center in Davisville, Rhode Island, developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended, and not inconsistent with the National Contingency Plan (NCP). This decision is based on the administrative record for the site.

U.S. Department of Navy

By: 

Philip S. Otis, P.E.

BRAC Environmental Coordinator

## 7.0 REFERENCES

EA Engineering, Science and Technology, *Base Realignment and Closure Cleanup Plan*, Naval Construction Battalion Center, February 1994.

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TRC Environmental Corporation, *Remedial Investigation Report: Human Health Risk Assessment*, Technical Report and Appendices A-Q, Naval Construction Battalion Center, Davisville, RI, Volume III, Draft Final, July 1994.

**TABLES**

Note: Tables 2 through 6 provided by Foster Wheeler.

TABLE 1

## SUMMARY OF REMOVAL ACTION COSTS

Description	Cost
Submittals and Reports	\$18,000
Sampling	\$5,000
Chemical Analysis	\$7,000
Earthwork	\$18,000
Transportation and Disposal	\$54,000
Distributive Costs	\$35,000
<b>Total Costs</b>	<b>\$137,000</b>

TABLE 2

## SUMMARY OF DISPOSAL QUANTITIES AND RECEIVING FACILITIES

Material	Quantity	Transporter	Disposal Facility	Disposal Technology
Asphaltic Material and Soil	196.13 tons	Dart Trucking Co. 200 Old Webster Rd. Oxford, MA 01540	High Acres Landfill 425 Perinton Pkwy. Fairport, NY 14450	Subtitle D Landfill
PPE	1 drum	ETGI Gold Mine Rd. Flanders, NJ 07836	CWM - Model City 1135 Balmer Rd. Model City, NY 14107	Subtitle C Landfill

TABLE 3

## SUMMARY OF ROUND I SAMPLE RESULTS

## ANALYTICAL LABORATORY

Sample Date	Sample Identifier	PCB (ppm)	TPH (ppm)	Comments
11/08/96	SA4-SS1FL-110896	0.89	1,700	Floor sample.
11/08/96	SA4-SS2FL-110896	0.80	<73	Floor sample.
11/08/96	SA4-SS3SW-110896	2.10	4,400	Sidewall sample.
11/08/96	SA4-SS4SW-110896	0.04 U	<77	Sidewall sample.
11/08/96	SA4-SS400SW-110896	0.07	<75	Duplicate of above.
11/08/96	SA4-SS5FL-110896	5.00	2,300	Floor sample.
11/08/96	SA4-SS6FL-110896	4.00	470	Floor sample.
11/08/96	SA4-SS7FL-110896	11.0	370	Floor sample.
11/08/96	SA4-SS8FL-110896	1.50	150	Floor sample.
11/08/96	SA4-SS9FL-110896	2.50	<76	Floor sample.
11/08/96	SA4-SS10SW-110896	4.60	440	Sidewall sample.
11/08/96	SA4-SS11SW-110896	9.70	1,200	Sidewall sample.
11/08/96	SA4-SS12SW-110896	1.60	340	Sidewall sample.
11/08/96	SA4-SS13SW-110896	4.20	2,600	Sidewall sample.

U = Analyte not detected in sample

TABLE 4

## SUMMARY OF ROUND II SAMPLE RESULTS

## ANALYTICAL LABORATORY

Sample Date	Sample Identifier	PCB (ppm)	TPH (ppm)	Comments
11/21/96	SA4-SS1AFL-112196	0.13	<73	Floor sample.
11/21/96	SA4-SS3ASW-112196	1.10	240	Sidewall sample.
11/21/96	SA4-SS5AFL-112196	1.50	1,100	Floor sample.
11/21/96	SA4-SS6AFL-112196	1.70	650	Floor sample.
11/21/96	SA4-SS600AFL-112196	0.55	180	Duplicate of above.
11/21/96	SA4-SS7AFL-112196	2.30	1,100	Floor sample.
11/21/96	SA4-SS10ASW-112196	0.31	<70	Sidewall sample.
11/21/96	SA4-SS11ASW-112196	8.30	260	Sidewall sample.
11/21/96	SA4-SS12ASW-112196	1.50	460	Sidewall sample.
11/21/96	SA4-SS13ASW-112196	11.0	1,200	Sidewall sample.
11/21/96	SA4-SS14-112196	0.72	<73	Floor sample.
11/21/96	SA4-SS15-112196	4.30	240	Floor sample.

TABLE 5

## SUMMARY OF ROUND III SAMPLE RESULTS

## FIELD SCREENING

Sample Date	Sample Identifier	Field TPH	Comments
12/03/96	SA4-SS5BFL-120396	26 ppm	Floor sample; send to laboratory.
12/03/96	SA4-SS6BFL-120396	449 ppm	Floor sample; reexcavate base.
12/03/96	SA4-SS7BFL-120396	93 ppm	Floor sample; send to laboratory.
12/03/96	SA4-SS700BFL-120396	62 ppm	Duplicate of above; send to laboratory.
12/03/96	SA4-SS12BSW-120396	676 ppm	Sidewall sample; reexcavate sidewall.
12/03/96	SA4-SS13BSW-120396	>calibration	Sidewall sample; reexcavate sidewall.

## ANALYTICAL LABORATORY

Sample Date	Sample Identifier	PCB (ppm)	TPH (ppm)	Comments
12/03/96	SA4-SS5BFL-120396	0.04 U	<74	Floor sample.
12/03/96	SA4-SS7BFL-120396	0.04 U	79	Floor sample.
12/03/96	SA4-SS700BFL-120396	0.04 U	<70	Duplicate of above.

U = Analyte not detected in sample

TABLE 6

## SUMMARY OF ROUND IV SAMPLE RESULTS

## FIELD SCREENING

Sample Date	Sample Identifier	Field TPH	Comments
12/05/96	SA4-SS6CFL-120596	ND	Floor sample; send to laboratory.
12/05/96	SA4-SS12CSW-120596	62 ppm	Sidewall sample; send to laboratory.
12/05/96	SA4-SS1200CSW-120596	ND	Duplicate of above; send to laboratory.
12/05/96	SA4-SS13CSW-120596	ND	Sidewall sample; send to laboratory.

ND = Not Detected

## ANALYTICAL LABORATORY

Sample Date	Sample Identifier	PCB (ppm)	TPH (ppm)	Comments
12/05/96	SA4-SS6CFL-120596	0.03 U	<69	Floor sample.
12/05/96	SA4-SS12CSW-120596	0.44	<72	Sidewall sample.
12/05/96	SA4-SS1200CSW-120596	0.25	<73	Duplicate of above.
12/05/96	SA4-SS13CSW-120596	0.04	<76	Sidewall sample.

U = Analyte not detected in sample

TABLE 7

## SUMMARY OF FINAL CONFIRMATORY SAMPLE RESULTS

## ANALYTICAL LABORATORY

Sample Date	Sample Identifier	PCB (ppm)	TPH (ppm)	Comments
11/08/96	SA4-SS2FL-110896	0.80	<73	Floor sample.
	SA4-SS4SW-110896	0.04 U	<77	Sidewall sample.
	SA4-SS8FL-110896	1.50	150	Floor sample.
	SA4-SS9FL-110896	2.50	<76	Floor sample.
11/21/96	SA4-SS1AFL-112196	0.13	<73	Floor sample.
	SA4-SS3ASW-112196	1.10	240	Sidewall sample.
	SA4-SS10ASW-112196	0.31	<70	Sidewall sample.
	SA4-SS11ASW-112196	8.30	260	Sidewall sample.
	SA4-SS14-112196	0.72	<73	Floor sample.
	SA4-SS15-112196	4.30	240	Floor sample.
12/03/96	SA4-SS5BFL-120396	0.04 U	<74	Floor sample.
	SA4-SS7BFL-120396	0.04 U	79	Floor sample.
12/05/96	SA4-SS6CFL-120596	0.03 U	<69	Floor sample.
	SA4-SS12CSW-120596	0.44	<72	Sidewall sample.
	SA4-SS13CSW-120596	0.04	<76	Sidewall sample.

U = Analyte not detected in sample

TABLE 8

SUMMARY OF WASTE CHARACTERIZATION SAMPLE RESULTS

Sample Date	Sample Identifier	PCB (ppm)	TPH (ppm)
12/19/96	SA4-PP1-121996	0.20	N/A
01/04/97	SA4-PP2-010497	N/A	1,800
12/04/96	Asphaltic Material	ND	800,000

The asphaltic material characterization report is included with the disposal documentation in Appendix B.

N/A = Analyte not analyzed in sample

ND = Not Detected

TABLE 9

## SUMMARY OF CLEAN FILL MATERIAL SAMPLE RESULTS

PARAMETER/ANALYTE	RESULT
<b>Inorganics (mg/Kg)</b>	
Aluminum	2750
Barium	16.1 B
Beryllium	0.5 B
Calcium	544 B
Chromium	2.2
Cobalt	2.5 B
Copper	4.5 B
Iron	7750 B
Lead	3.3
Magnesium	721 B
Manganese	183
Potassium	521
Sodium	36.3
Vanadium	5.5
Zinc	32.4
<b>Volatile Organic Compounds (ug/Kg)</b>	ND
<b>Semivolatile Organic Compounds (ug/Kg)</b>	
Phenol	64 JB
<b>Pesticides/PCB (ug/Kg)</b>	ND
<b>TPH (mg/Kg)</b>	< 69

Notes: J - Estimated Value

B - Analyte Detected in Blank

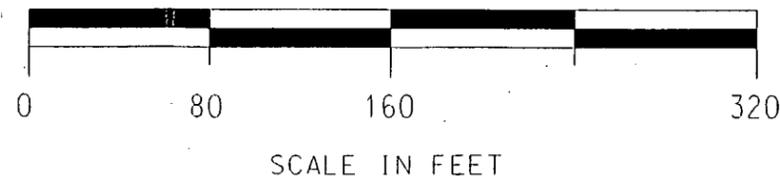
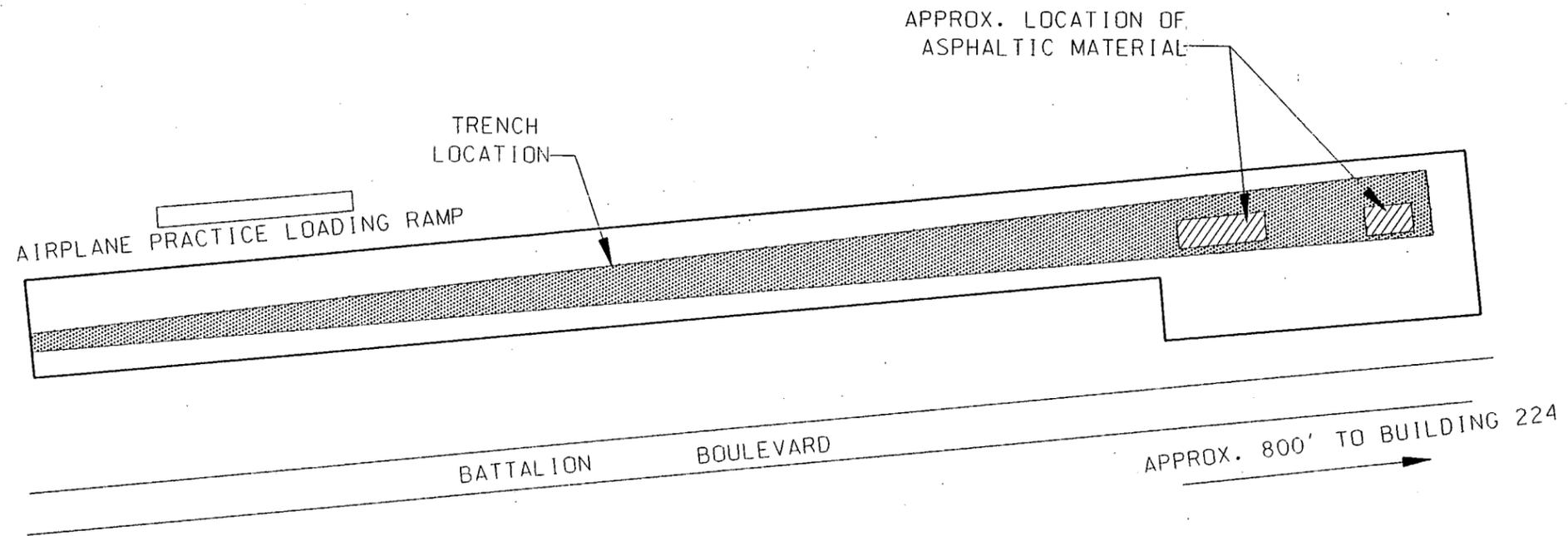
ND - Not Detected

**FIGURES**

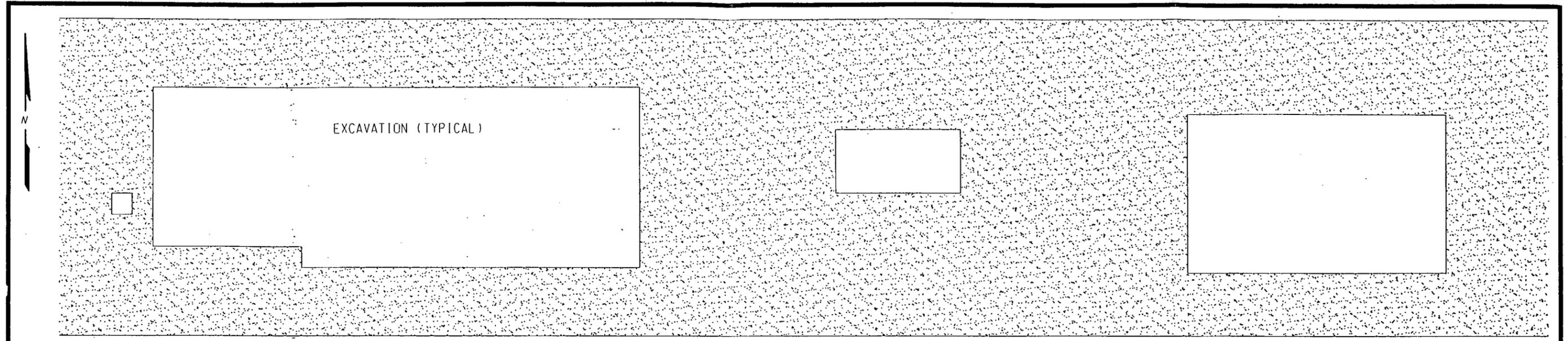
Figures 2 through 4 provided by Foster Wheeler



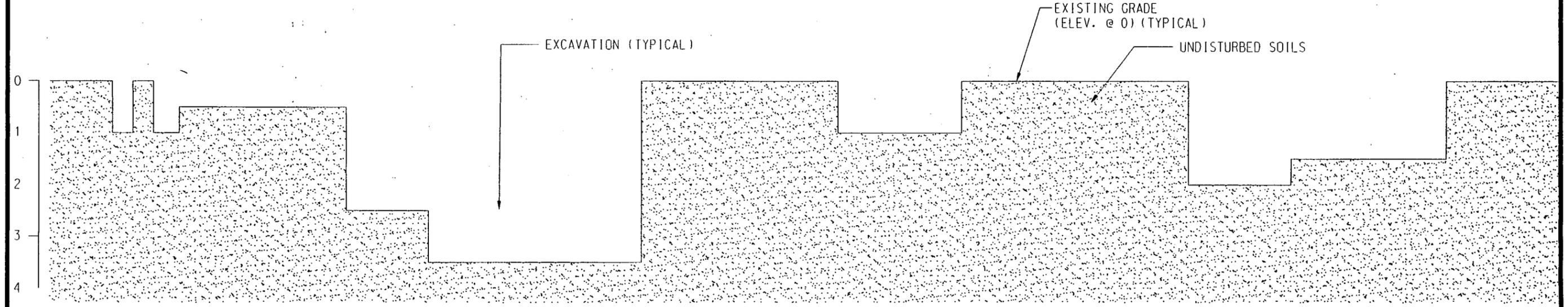
SOURCE: " FINAL STUDY AREA SCREENING EVALAUATION REPORT FOR  
 CED ASPHALT DISPOSAL AREA".NAVAL CONSTRUCTION CENTER.  
 HALLIBURTON NUS CORP.. SEPTEMBER 1994



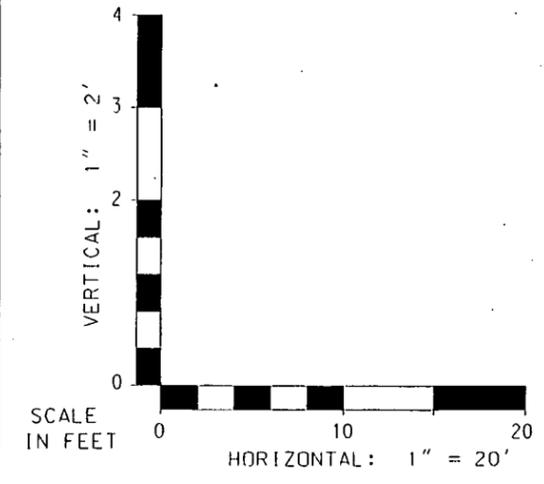
SITE PLAN		
FIGURE 2		
STUDY AREA 4 - NCRD DARTMOUTH, RHODE ISLAND		
NORTHERN DRYDEN - NAVAL FACILITIES ENGINEERING COMMAND		
DATE APRIL 1997	PROJECT NUMBER BASE	SCALE 1" = 80'
DESIGNED BY JFR	ENVIRONMENTAL TECHNOLOGY & SERVICES	DATE PLOTTED 11/19/97
APPROVED BY TPO	245 BUDDER STREET BOSTON, MA 02230	PROJECT NUMBER 140



P L A N

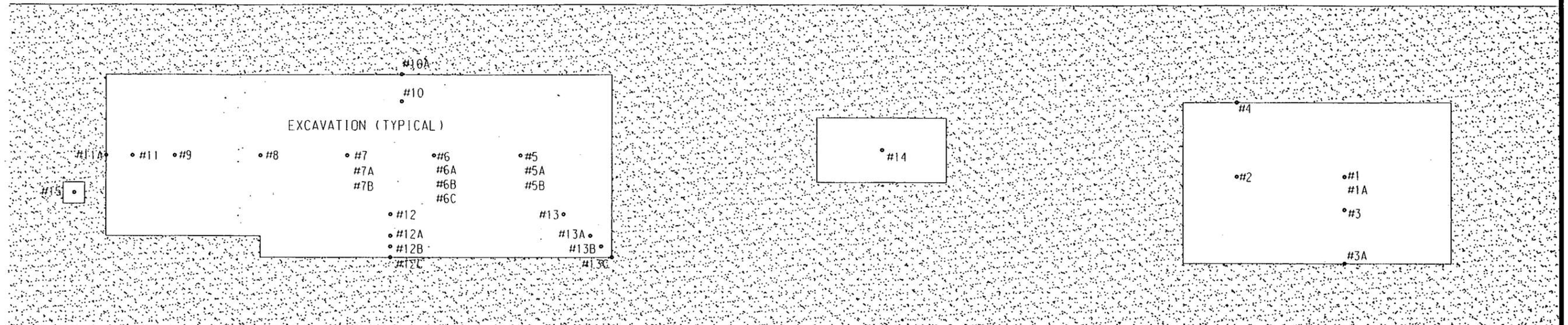


P R O F I L E

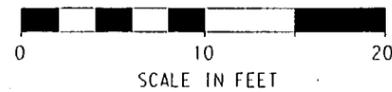


SOURCE: "CONTRACTOR'S CLOSE-OUT REPORT FOR THE REMOVAL ACTION AT STUDY AREA 4, NAVAL CONSTRUCTION BATTALLION CENTER (NCBC) DAVISVILLE, RHODE ISLAND". FOSTER WHEELER ENVIRONMENTAL CORPORATION, APRIL 1997.

STUDY AREA 4 PLAN AND PROFILE			
FIGURE 3			
STUDY AREA 4 - NCBC DAVISVILLE, RHODE ISLAND			
NORTHERN DIVISION - NAVAL FACILITIES ENGINEERING COMMAND			
DATE: APRIL 1997	PROJECT NUMBER: 0429	SCALE: 1" = 20'	FILE NAME: trench3.dgn
DRAWN BY: JWR	PROJECT MANAGER: I.R.G.	DATE: 04/29/97	PROJECT NUMBER: 0429
CHECKED BY: JWR	ENVIRONMENTAL TECHNOLOGY & SERVICES	245 SUMNER STREET	BOSTON, MA 02210
DESIGNED BY: TPO			



SOURCE: "CONTRACTOR'S CLOSE-OUT REPORT FOR THE REMOVAL ACTION AT STUDY AREA 4, NAVAL CONSTRUCTION BATTALLION CENTER (NCBC) DAVISVILLE, RHODE ISLAND". FOSTER WHEELER ENVIRONMENTAL CORPORATION, APRIL 1997.



**KEY:**

•#15 DENOTES SAMPLE LOCATION AND SAMPLE NUMBER

CONFIRMATORY SAMPLE LOCATIONS		
FIGURE 4		
STUDY AREA 4 - NCBC DAVISVILLE, RHODE ISLAND NORTHERN DIVISION - NAVAL FACILITIES ENGINEERING COMMAND		
DATE APRIL 1997	PROJECT NUMBER 04296	SCALE 1" = 50'
DESIGNED BY JWR	STONE & WEBSTER	FILE NAME 070604.dgn
DRAWN BY JWR	ENVIRONMENTAL TECHNOLOGY & SERVICES	DRAWING NUMBER
REVIEWED BY TPO	245 SUMNER STREET BOSTON, MA 02210	SHEET NUMBER
PROJECT MANAGER L.B.G.		

**APPENDIX A**

**LIST OF ACRONYMS AND ABBREVIATIONS**

### List of Acronyms and Abbreviations

Action Memorandum	Action Memorandum for Sites 02 and 13 and Study Area 4
AETS	Advanced Environmental Technical Services
BCT	BRAC Cleanup Team
bgs	below ground surface
BRAC	Base Realignment and Closure
CED	Construction Equipment Division
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSO	Caretaker Site Office
CTO	Contract Task Order
DAA	Detailed Analysis of Alternatives
EA	EA Engineering, Science and Technology
EPA	United States Environmental Protection Agency
FFA	Federal Facility Agreement
Foster Wheeler	Foster Wheeler Environmental Corporation
FS	Feasibility Study
IAS	Initial Assessment Study
IR	Installation Restoration
ISA	Initial Screening of Alternatives
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NCBC	Naval Construction Battalion Center
NCP	National Contingency Plan
NEESA	Naval Energy and Environmental Support Activity
NET	National Environmental Testing, Incorporated
Northern Division	Northern Division, Naval Facilities Engineering Command
PCB	Polychlorinated biphenyls
ppb	parts per billion
PPE	Personal Protective Equipment
ppm	parts per million
Proposed Plan	Proposed Remedial Action Plan
RAB	Restoration Advisory Board
RAC	Remedial Action Contractor
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RIDEM	Rhode Island Department of Environmental Management
RIEDC	Rhode Island Economic Development Corporation
RIGL	Rhode Island General Laws
SAP	Sampling and Analysis Plan
SASE	Study Area Screening Evaluation
SOP	Standard Operating Procedure
Stone & Webster	Stone & Webster Environmental Technology & Services

SVOC	Semivolatile Organic Compounds
TAL	Target Analyte List
TCL	Target Compound List
TPH	Total Petroleum Hydrocarbons
TRC	TRC Environmental Corporation
VOC	Volatile Organic Compounds

**APPENDIX B**

**DISPOSAL DOCUMENTATION**



ADVANCED ENVIRONMENTAL  
TECHNICAL SERVICES

3 Gold Mine Road • Flanders, New Jersey 07836 • 201-347-7111

Disposal Code

WASTESTREAM INFORMATION PROFILE

Recertification

BRANCH

ETS TSDF requested \_\_\_\_\_ Technology requested \_\_\_\_\_ Generator No. \_\_\_\_\_ Generator EPA ID No. RI6170022036

Generator Name Dept. of The Navy Attn: Walter Davis Generator State No. \_\_\_\_\_

Address 446 Davisville Road State-Wastestream No. \_\_\_\_\_

City North Kingstown State RI ZIP 02852

SIC Code \_\_\_\_\_ Source \_\_\_\_\_ Origin \_\_\_\_\_ Form \_\_\_\_\_ System Type \_\_\_\_\_

Waste Name Asphalt and Soil

Process Generating Waste Clean-up of Asphalt Trench

Shipping Name State Hazardous Solid Hazard Class \_\_\_\_\_ UN/NA No. \_\_\_\_\_ PG \_\_\_\_\_ RQ amt \_\_\_\_\_

Waste Codes \_\_\_\_\_

6. Physical and chemical properties

Specific Gravity	Flash Point (F)	Solids <u>100</u>	<u>100</u> % ash
a _____ < .8	a _____ < 80	_____ % suspended	_____ water solubility
b _____ .8 - 1.0	b _____ 80 - 100	_____ % settleable	_____ BTU/lb
c <input checked="" type="checkbox"/> 5 - 9	c _____ 101 - 140	_____ % dissolved	
_____ 9 - 12.5	d _____ 141 - 200		
_____ > 12.5	e _____ > 200		
_____ exact	f <input checked="" type="checkbox"/> no flash _____ exact		

Physical State	Hazardous Characteristics	Odor:
s <input checked="" type="checkbox"/> solid	a _____ air reactive	a none <input checked="" type="checkbox"/>
_____ semi-solid	w _____ water reactive	b mild <input checked="" type="checkbox"/>
_____ liquid	c _____ cyanide reactive	c strong
_____ pumpable semi-solid	f _____ sulfide reactive	describe <u>Asphalt</u>
_____ flowable powder	e _____ explosive	
_____ gas	o _____ oxidizing acid	
_____ aerosol	p _____ peroxide former	
_____ pressurized liquid	Viscosity	Halogens
Layers	a _____ high (syrup)	Br _____ % Bromine
_____ multilayered	b _____ medium (oil)	Cl _____ % Chlorine
_____ bi-layered	c _____ low (water)	F _____ % Fluorine
c _____ single phase	Free liquid range _____ to _____ %	I _____ % Iodine
		Used oil y/n _____ HOC <1000 ppm _____ or >1000 ppm _____

Chemical Composition [M = Marine Pollutant, O = Ozone Depleting Substance, U = Underlying Hazardous Constituent, B = Benzene NESHP]

Constituents	Range	Units	Constituents	Range	Units
<u>Virgin Asphalt</u>	<u>20-90</u>	<u>%</u>			
<u>Soil</u>	<u>10-80</u>	<u>%</u>			

Total Composition Must Equal or Exceed 100%

Other:

- 8. Does the wastestream contain PCBs regulated by 40CFR?  Yes  No  
PCB concentration \_\_\_\_\_ ppm
- 9. Is the wastestream subject to the Marine Pollutant Regulations?  Yes  No  
If yes, identify the chemical by writing M to the left of the chemical name.
- 10. Does the wastestream contain any ozone depleting substances?  Yes  No  
If yes, identify the chemical by writing O to the left of the chemical name.
- 11. Is the wastestream subject to underlying hazardous constituents notification?  Yes  No  
If yes, identify the constituent by writing U to the left of the chemical name.
- 12. Is the wastestream subject to Benzene NESHAP Notification and Control Requirements?  Yes  No  
If yes, concentration \_\_\_\_\_ ppm and identify the chemical by writing B to the left of the chemical name.
- 13. Is the wastestream subject to RCRA subpart CC controls?  Yes  No  
Volatile organic concentration, if known \_\_\_\_\_ ppmw CC approved analytical method \_\_\_\_\_ Generator Knowledge \_\_\_\_\_
- 14. Is the wastestream from a CERCLA or state mandated cleanup?  Yes  No

15. Container Information (Identify UN container marking if known)

Packaging: Bulk Solid  Type/Size: Roll-off-30cy Bulk Liquid \_\_\_\_\_ Type/Size: \_\_\_\_\_ Drum \_\_\_\_\_ Type/Size: \_\_\_\_\_

Other \_\_\_\_\_

Shipping Frequency: Units 3-5 Per Month \_\_\_\_\_ Quarter \_\_\_\_\_ Year \_\_\_\_\_ One Time  Other \_\_\_\_\_

16. Additional Information:

Total TPH = 800,000 PPM  
of asphalt

PCB = ? Non-Detect

CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize sampling of any waste shipment for purposes of recertification.

WALTER L. DAVIS

(401) 294-6108

12/4/96

NAME (PRINT OR TYPE)

PHONE

DATE

*Walter L. Davis*

ENVIRONMENTAL MANAGER

SIGNATURE

TITLE



# GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Waste Profile Sheet Code

WMI 453817

This form is to be used to comply with the requirements of a waste agreement.

INSTRUCTIONS FOR COMPLETING THIS FORM ARE ATTACHED

(Shaded Areas For Contractor Use Only)

Decision Expiration Date: 11 / 1

Contractor Sales Rep#: \_\_\_\_\_

Service Agr. Renewal Date: 1 / 1

### A. WASTE GENERATOR INFORMATION

1. Generator Name: Dept. of the Navy Attn: Walter Davis 2. SIC Code: \_\_\_\_\_  
 3. Facility Address (site of waste generation): 444 Davisville Road  
 4. Generator City, State/Province: North Kingstown, RI 5. Zip/Postal Code: 02852  
 6. Generator USEPA/Federal ID #: RI 6170 022 036 7. State/Province ID #: \_\_\_\_\_  
 8. Technical Contact: Walter Davis 9. Phone: (401) 294-6108

### B. WASTE STREAM INFORMATION (See Instructions)

1. Name of Waste: Asphalt and Soil  
 2. Process Generating Waste: Clean up of asphalt trench  
 3. Annual Amount/Units: 2-5 roll-offs 4. Type A  Type B   
 5. Special Handling Instructions/Supplemental Information: \_\_\_\_\_

### C. TRANSPORTATION INFORMATION

1. Method of Shipment:  Bulk Liquid  Bulk Sludge  Bulk Solid  Drum/Box  Other \_\_\_\_\_  
 2. Supplemental Shipping Information: \_\_\_\_\_

3. Is this a DOT hazardous material?  No  Yes (If yes, complete 4, 5 & 6) 4. Hazard Class/ID #: \_\_\_\_\_  
 5. Reportable Quantity/Units (lb/kg): \_\_\_\_\_ 6. Shipping Name: State Regulated Solid

### D. TECHNICAL MANAGER DECISION (Check One) APPROVED DISAPPROVED Check if additional information is attached

If Disapproved, Explain: \_\_\_\_\_  
 If Approved, Continue: \_\_\_\_\_  
 1. Management Method(s): \_\_\_\_\_  
 Precautions, Conditions, or Limitations on Approval: \_\_\_\_\_

For Type A Wastes, Laboratory Analysis of a Representative Sample Was:  Waived  Attached  
 If waived, explain why: \_\_\_\_\_

List Non-WMI Facility that is Approved to Manage this Waste: \_\_\_\_\_ Date: \_\_\_\_\_  
 Tech. Mgr. Signature: \_\_\_\_\_ Name (Print): \_\_\_\_\_ Date: \_\_\_\_\_

### E. MANAGEMENT FACILITY INFORMATION / DECISION

Proposed Management Facility: \_\_\_\_\_  
 Proposed Intermediate Transfer Facility: \_\_\_\_\_ 3. Transporter: \_\_\_\_\_  
 4. Management Facility Gen. Mgr. Decision (Check One)  APPROVED  DISAPPROVED  
 If Disapproved, Explain: \_\_\_\_\_  
 If Approved, List Precautions, Conditions, or Limitations on Approval: \_\_\_\_\_  
 General Mgr. Signature: \_\_\_\_\_ Name (Print): \_\_\_\_\_ Date: \_\_\_\_\_

Turn Page and Complete Side 2 (If Type B Special Waste, only complete Part J of Side 2)



# GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

## F. PHYSICAL CHARACTERISTICS OF WASTE (See Instructions)

1. Color <u>Brown/Black</u>	2. Does the waste have a strong incidental odor? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes; if so, describe: _____	3. Physical State @ 70°F/21°C: <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Semi-Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Powder <input type="checkbox"/> Other: _____	4. Layers <input type="checkbox"/> Multi-layered <input checked="" type="checkbox"/> Bi-layered <input type="checkbox"/> Single Phased	5. Specific Gravity Range <u>1.2</u>	6. Free Liquids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Volume: _____ %
7. pH: <input type="checkbox"/> ≤2 <input type="checkbox"/> >2-4 <input checked="" type="checkbox"/> 4-7 <input type="checkbox"/> 7 <input type="checkbox"/> 7-10 <input type="checkbox"/> 10- <12.5 <input type="checkbox"/> ≥12.5 <input type="checkbox"/> Range <input type="checkbox"/> NA	8. Flash Point: <input checked="" type="checkbox"/> None <input type="checkbox"/> <140°F/60°C <input type="checkbox"/> 140 - 199°F/60 - 93°C <input type="checkbox"/> ≥200°F/93°C <input type="checkbox"/> Closed Cup <input type="checkbox"/> Open Cup				

## G. CHEMICAL COMPOSITION

RANGE (MIN-MAX)		2. Does the waste contain any of the following? (provide concentration if known):			
1.		NO	or LESS THAN	or ACTUAL	
<u>Virgin Asphalt</u>	<u>20.90</u> %	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 50 ppm	_____	ppm
<u>Soil</u>	<u>10.80</u> %	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 30 ppm	_____	ppm
_____	_____ %	<input type="checkbox"/>	<input type="checkbox"/> < 500 ppm	_____	ppm
_____	_____ %				
_____	_____ %				
_____	_____ %				
_____	_____ %				
Total:	<u>100</u> %				

Please note: Unless analytical results are attached, the chemical composition identification should include, at a minimum, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Pesticides, Herbicides, and any other TCLP constituents that may be present in the waste. The total composition must be greater than or equal to 100%. (.0001% = 1 ppm or 1 mg/l)

3. Indicate method used to determine composition (if provided):  TCLP  Total  Other: \_\_\_\_\_

H. SAMPLING SOURCE (e.g., Drum, Lagoon, Pit, Pond, Tank, Vat) Roll-off

## I. REPRESENTATIVE SAMPLE CERTIFICATION

1. Print Sampler's Name: \_\_\_\_\_ 2. Sample Date: \_\_\_\_\_

3. Sampler's Title: \_\_\_\_\_

4. Sampler's Employer (if other than Generator): \_\_\_\_\_

The sampler's signature certifies that any sample submitted is representative of the waste described above pursuant to 40 CFR 261.20(c) or equivalent rules.

5. Sampler's Signature \_\_\_\_\_

## J. GENERATOR CERTIFICATION

By signing this profile sheet, the Generator certifies:

- This waste is not a "Hazardous Waste" as defined by USEPA or Canadian Federal regulation and/or the state/province.
- This waste does not contain regulated radioactive materials or regulated concentrations of PCB's (Polychlorinated Biphenyls).
- The unshaded portions of this sheet and the attachments contain true and accurate descriptions of the waste material. All relevant information regarding known or suspected hazards in the possession of the Generator has been disclosed.
- The Generator has read and understands the Contractor's Definition of Special Waste included in Part B.5. of the attached instructions form. All types and amounts of special wastes provided in incidental amounts have been identified in section B.6. of this form.
- The analytical data presented herein or attached hereto were derived from testing a representative sample taken in accordance with 40 CFR 261.20(c) or equivalent rules.
- If any changes occur in the character of the waste, the Generator shall notify the Contractor prior to providing the waste to the Contractor.

7. Signature Walter L. Davis 8. Title ENVIRONMENTAL MANAGER

9. Name (Type or Print) WALTER L. DAVIS 10. Date 12/4/96

Modified: 6/2/92, 3/16/9

93-204 (10-90) - ZSC

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER 8-2644-00048/00003
FACILITY/PROGRAM NUMBER(S)  28S08

EFFECTIVE DATE April 4, 1991
EXPIRATION DATE April 3, 1996

**PERMIT**  
Under the Environmental Conservation Law (ECL)

TYPE OF PERMIT (Check All Applicable Boxes)

New    
  Renewal    
  Modification    
  Permit to Construct    
  Permit to Operate

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Article 15, Title 5: Protection of Water                   | <input type="checkbox"/> Article 17, Titles 7, 8: SPDES                                     | <input type="checkbox"/> Article 27, Title 9: 6NYCRR 373: Hazardous Waste Management  |
| <input type="checkbox"/> Article 15, Title 15: Water Supply                         | <input type="checkbox"/> Article 19: Air Pollution Control                                  | <input type="checkbox"/> Article 34: Coastal Erosion Management                       |
| <input type="checkbox"/> Article 15, Title 15: Water Transport                      | <input type="checkbox"/> Article 23, Title 27: Mined Land Reclamation                       | <input type="checkbox"/> Article 36: Floodplain Management                            |
| <input type="checkbox"/> Article 15, Title 15: Long Island Wells                    | <input type="checkbox"/> Article 24: Freshwater Wetlands                                    | <input type="checkbox"/> Articles 1, 3, 17, 19, 27, 37: 6NYCRR 380: Radiation Control |
| <input type="checkbox"/> Article 15, Title 27: Wild, Scenic and Recreational Rivers | <input type="checkbox"/> Article 25: Tidal Wetlands   | <input type="checkbox"/> Other: _____   |
| <input type="checkbox"/> 6NYCRR 608: Water Quality Certification                    | <input checked="" type="checkbox"/> Article 27, Title 7: 6NYCRR 360: Solid Waste Management |   |

PERMIT ISSUED TO Waste Management of New York, Incorporated		TELEPHONE NUMBER (716) 254-3500	
ADDRESS OF PERMITTEE 1661 Mt. Read Blvd, Rochester, NY 14606			
CONTACT PERSON FOR PERMITTED WORK Dan Coon		TELEPHONE NUMBER (716) 223-6132	
NAME AND ADDRESS OF PROJECT/FACILITY High Acres Landfill & Recycling Center			
425 Perinton Parkway, Fairport, NY 14450			
LOCATION OF PROJECT/FACILITY 425 Perinton Parkway, Fairport, NY 14450			
COUNTY Monroe	TOWN/CITY/VILLAGE Perinton	WATERCOURSE/WETLAND NO.	NYTM COORDINATES E: _____ N:4 _____
DESCRIPTION OF AUTHORIZED ACTIVITY Operation of mixed solid waste landfill.			

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (See Reverse Side) and any Special Conditions included as part of this permit.

PERMIT ADMINISTRATOR <i>ALBERT W. BUTEAS</i>	ADDRESS 6274 East Avon-Lima Road Avon, NY 14414
AUTHORIZED SIGNATURE <i>Albert W. Butenas</i>	DATE 3/14/93
Page 1 of 20	













































HIGH ACRES LANDFILL - WASTE MANAGEMENT

02/05/  
PAGE

PROFILE REPORT  
01/08/97 TO 01/11/97  
PROFILE: 453817  
DETAIL: Y

TICKET	DATE	CUYD	TONS	AMOUNT	RAT
453817 DEPT. OF THE NAVY ASPHALT BOIL (L)					
188868	01/08/97	0.00	13.20	390.01	
188877	01/08/97	0.00	13.68	410.41	
188879	01/08/97	0.00	26.29	788.71	
188880	01/08/97	0.00	18.66	559.81	
188886	01/08/97	0.00	10.68	320.41	
188986	01/08/97	0.00	5.93	177.91	
188911	01/08/97	0.00	17.34	520.21	
188837	01/09/97	0.00	25.43	762.91	
188869	01/09/97	0.00	00.77	623.11	
188870	01/09/97	0.00	26.74	802.21	
188314	01/11/97	0.00	17.41	522.31	
PROFILE TRANS:	11	0.00	196.13	5884.01	30.0
TRANSACTIONS:	11				
TOTAL CUYD:	0.00				
TOTAL TONS:	196.13				
TOTAL AMOUNT:	5884.01				

HIGH ACRES LANDFILL WASTE MANAGEMENT

DATE: 01/08/97  
TIME: 09:35

(616)-223-6132

CUSTOMER: 1313 A.E.T.S

MAST KIM VILLARD

TRUCK: 9007 WASTE CONT

ORIGIN: 276 NORTH KINGSTON RHODE

PROFILE: 452817

NAVY ASPHALT SOIL(L)

GROSS: 320 LB

TARE:

NET: 264 LB = 13.20 TONS

TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE

OUT-OF-STATE SOLID WASTE TRANS. I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

0001313 REMARKS: DART TRK'S

SIGN

HIGH ACRES LANDFILL WASTE MANAGEMENT

DATE: # 188877  
01/08/97  
TIME: 09:50

CUSTOMER: 1313 A.E.T.S.

WASTE KIM VILLARD

TRUCK: 220593 WAB CON CONT

ORIGIN: 276 NORTH KINGSTON (RHODE ISLAND) PROFILE: 453817  
HEAVY ASPHALT SOIL (L)

GROSS: 27367 LBS

TARE: 27367 LBS

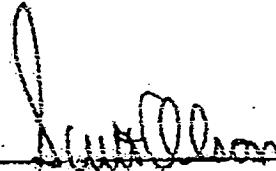
NET: 27367 LBS = 13.69 TONS

TO THE BEST OF MY  
KNOWLEDGE THIS TRUCK  
CONTAINS NO HAZARDOUS  
OR UNACCEPTABLE WASTE

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

0001313 REMARKS:

SIGN



R-29-20257

HIGH ACRES LANDFILL WASTE MANAGEMENT

DATE: # 188879  
01/08/97  
TIME: 09:37

CUSTOMER: 1313 A.E.T.S

TRUCK: 300535

WASTE CON CONT

ORIGIN: 276 NORTH KINGSTON (RHODE

PROFILE: 453817

NAVY ASPHALT SOIL (L

GROSS: 1040 LBS

TARE: 4500 LBS

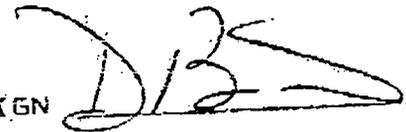
NET: 32300 LBS = 35.39 TONS

TO THE BEST OF MY  
KNOWLEDGE THIS TRUCK  
CONTAINS NO HAZARDOUS  
OR UNACCEPTABLE WA

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

0001313 REMARKS:

SIGN



HIGH ACRES LANDFILL WASTE MANAGEMENT

DATE: 01/08/97  
TIME: 10:20

188890

(716) 223-6135



ER: 1313 A.E.T.S

CK: 300588

WASTE CON CONT

MAST KIM VILLARD

IN: 276 NORTH KINGSTON (RHODE

PROFILE: 452817

NAVY ASPHALT SOIL (L)

GROSS: 37560 LBS

TARE: 4200 LBS

NET: 37380 LBS = 18.66 TONS

TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE

STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of that the information provided is true and correct to the best of my age and belief.

REMARKS:

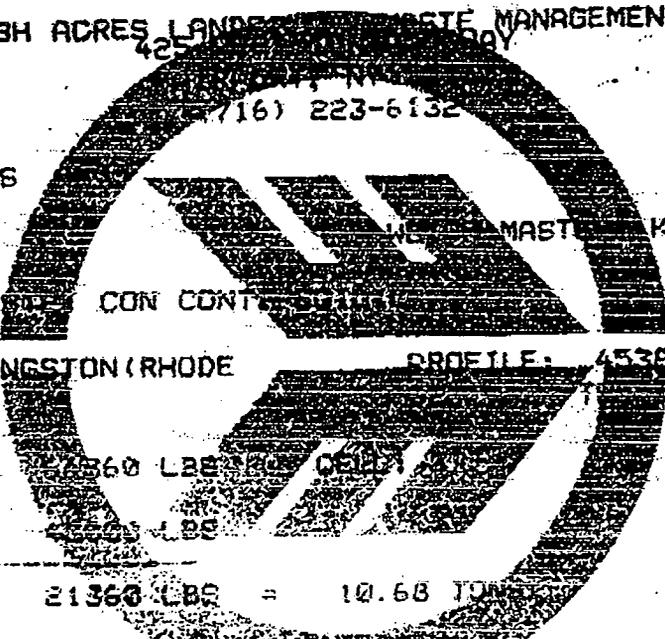
SIGN

*Kim Villard*

HIGH ACRES LANDFILL WASTE MANAGEMENT

DATE: # 188886  
01/08/97  
TIME: 09:39

CUSTOMER: 1313 A.E.T.S



(716) 223-6132

MASTERS KIM VILLARD

TRUCK: 200259 WASTE CON CONT. 50000

ORIGIN: 276 NORTH KINGSTON (RHODE

PROFILE: 453917

WASTE: ASPHALT SOIL (L)

GROSS: 22360 LBS

TARE: 1000 LBS

NET: 21360 LBS = 10.68 TONS

TO THE BEST OF MY  
KNOWLEDGE THIS TRUCK  
CONTAINS NO HAZARDOUS  
OR UNACCEPTABLE WASTE

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

0001313 REMARKS:

SIGN

HIGH ACRES LANDFILL WASTE MANAGEMENT

DATE: # 188906  
01/08/97  
TIME: 11:14

(716) 223-6132

CUSTOMER: 1313 A.E.T.S

WASTE MASTER: KIM VILLARD

TRUCK: 220435 WASTE CONTAINER

ORIGIN: 276 NORTH KINGSTON (RHODE ISLAND)

PROJECT: 55317

THE NAVY ASPHALT SOIL (L)

GROSS: 14730 LBS

TARE: 13070 LBS

NET: 11860 LBS = 5.93 TONS

TO THE BEST OF MY  
KNOWLEDGE THIS TRUCK  
CONTAINS NO HAZARDOUS  
OR UNACCEPTABLE WASTE

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.



0001313 REMARKS:

SIGN

HIGH ACRES LANDFILL WASTE MANAGEMENT

DATE: 01/08/97  
TIME: 11:02

(16) 223-6135

CUSTOMER: 1313 A.E.T.S

MAST KIM VILLARD

TRUCK: 220322 WASTE CON CONT

ORIGIN: 276 NORTH KINGSTON (RHODE

PROFILE: 453617

NAVY ASPHALT SOIL (L)

GROSS: 34860 LBS

TARE: 3500 LBS

NET: 34860 LBS = 17.34 TONS

TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

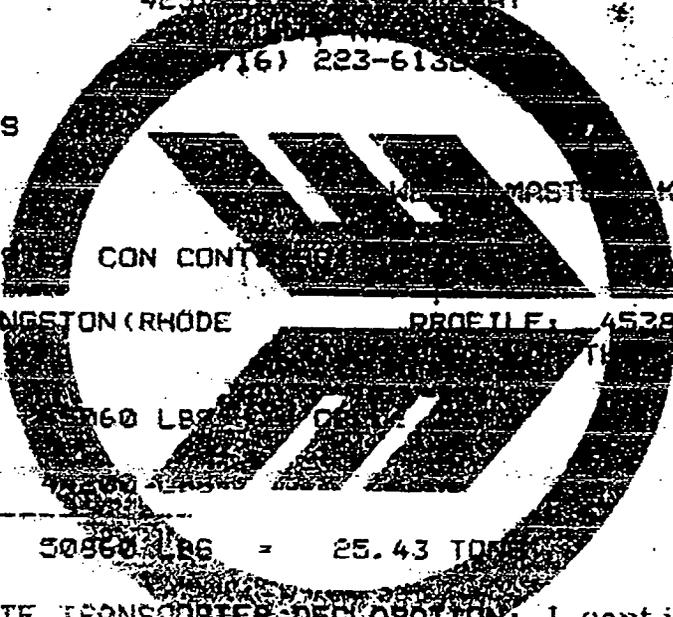
0001313 REMARKS:

SIGN

HIGH ACRES LANDFILL WASTE MANAGEMENT

425-855-2000  
716) 223-6138

DATE: # 189037  
01/09/97  
TIME: 09:36



STOMER: 1313 A.E.T.S

DRIVER: KIM VILLARD

TRUCK: 300537 WASTE CON CONT

ORIGIN: 276 NORTH KINGSTON (RHODE ISLAND) PROFILE: 453817  
HEAVY ASPHALT SOIL (L)

GROSS: 5060 LB  
TARE: 4200 LB  
NET: 5060 LB = 25.43 TONS

TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

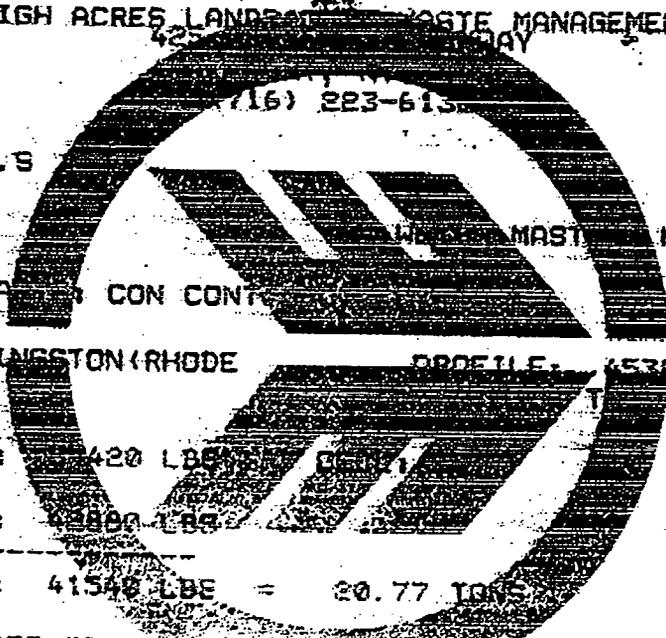
1213 REMARKS:

SIGN *Kim Villard*

R-29-20264

HIGH ACRES LANDFILL WASTE MANAGEMENT

# 189069  
DATE: 01/09/97  
TIME: 12:44



OWNER: 1313 A.E.T.S

MANAGER: MAST KIM VILLARD

TRUCK: 300540

WASTE: CON CONT

BIN: 276 NORTH KINGSTON (RHODE

ADDRESS: 653817

TO: NAVY ASPHALT SOIL (L)

GROSS: 420 LBS

TARE: 2800 LBS

NET: 41540 LBS = 20.77 TONS

TO THE BEST OF MY  
KNOWLEDGE THIS TRUCK  
CONTAINS NO HAZARDOUS  
OR UNACCEPTABLE WASTE

OUT-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of  
perjury that the information provided is true and correct to the best of my  
knowledge and belief.

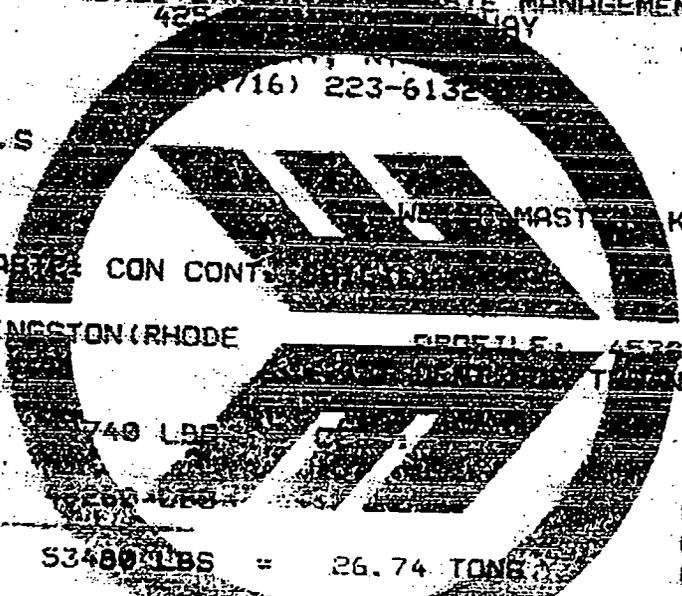
REMARKS:

SIGN

*DR*

HIGH ACRES LANDFILL WASTE MANAGEMENT

# 189070  
DATE: 01/09/97  
TIME: 12:46



(716) 223-6132

CUSTOMER: 1313 A.E.T.S

WASTE MASTER KIM VILLARD

TRUCK: 300534 WASTE CON CONT

ORIGIN: 276 NORTH KINGSTON (RHODE

PROPERTY # 452017  
NAVY ASPHALT SOIL (L)

GROSS: 740 LBS

TARE: 1260 LBS

NET: 5340 LBS = 26.74 TONS

TO THE BEST OF MY  
KNOWLEDGE THIS TRUCK  
CONTAINS NO HAZARDOUS  
OR UNACCEPTABLE WASTE

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

0001313 REMARKS:

SIGN *[Signature]*

HIGH ACRES LANDFILL WASTE MANAGEMENT

# 189314  
DATE: 01/11/97  
TIME: 08:56

(716) 223-6132

CUSTOMER: 1313 A.E.T.S.

WASTE MANAGER: JOANNE SCHAEFFER

TRUCK: 207203 WA CON CONT

ORIGIN: 276 NORTH KINGSTON (RHODE ISLAND) PROFILE # 452017  
MATERIAL: NAVY ASPHALT SOIL (L)

GROSS: 68 LB  
TARE: 17.41 LB  
NET: 50.59 LB

TO THE BEST OF MY  
KNOWLEDGE THIS TRUCK  
CONTAINS NO HAZARDOUS  
OR UNACCEPTABLE WASTE

OUT-OF-STATE SOLID WASTE TRANSPORTATION: I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

0001313 REMARKS: LANDFILLED SOIL

SIGN *Col. [Signature]*



State of New Jersey  
Department of Environmental Protection and Energy  
Hazardous Waste Regulation Program  
Manifest Section

CN 421, Trenton, NJ 08625-0421

Please type or print in block letters (Form designed for use on elite (12-pitch) typewriter.) Form Approved OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. RI 1611710102121316	Manifest Document No. 91981917	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address DEPARTMENT OF THE NAVY DAVISVILLE ROAD NORTH KINGSTOWN RI 02852		4. Generator's Phone 401-294-6805		5. State of Origin RI		
5. Transporter 1 Company Name ENVIRON TRANSPORT GROUP INC		6. US EPA ID Number NJ D10101619210181		7. State of Destination RI		
7. Transporter 2 Company Name		8. US EPA ID Number		9. State of Destination RI		
9. Designated Facility Name and Site Address ADVANCED ENVIRONMENTAL TECHNICAL SERVICES 1 RIDER LANE BLANDFORD, NJ 07836		10. US EPA ID Number NJ D981053165193		11. State of Destination RI		
11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group)		12. Containers		13. Total Quantity	14. Unit	15. Waste No.
a. HAZARDOUS WASTE, LIQUID, n.o.s. (LEAD) 9, NA3082, III		011 DM		04400	P	D008
b. HAZARDOUS WASTE, SOLID, n.o.s. (LEAD) 9, NA3077, III		014 DM		57000	P	D008
c. NON-RCRA SOLID, n.o.s. DOT NON-REGULATED, NONE		012 DM		03600	P	X210
d. HAZARDOUS WASTE, LIQUID, NOS (LEAD) 9, NA3082, III		X11 DM		4100	P	D1018
16. Additional Descriptions for Materials Listed Above S/A LEAD PAINT CHIPS AND PAINT WATER LATHS - 10 APT LEAD		17. Handling Codes for Wastes Listed Above S01 S01				
15. Special Handling Instructions and Additional Information PACKING SLIPS ATTACHED FOR CLARIFICATION EMERGENCY PHONE 800-368-6887 X210 FOR MIDEPE USE ONLY						
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 WALTER L. DAVIS		Signature Walter Davis		Month Day Year 11 11 97		
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name James Bianchi		Signature James Bianchi		Month Day Year 11 11 97
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		Month Day Year
19. Discrepancy Indication Space Section C should include 7107 @ 1/3/97						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name William A. Regan		Signature William A. Regan		Month Day Year 11 11 97		

**APPENDIX C**

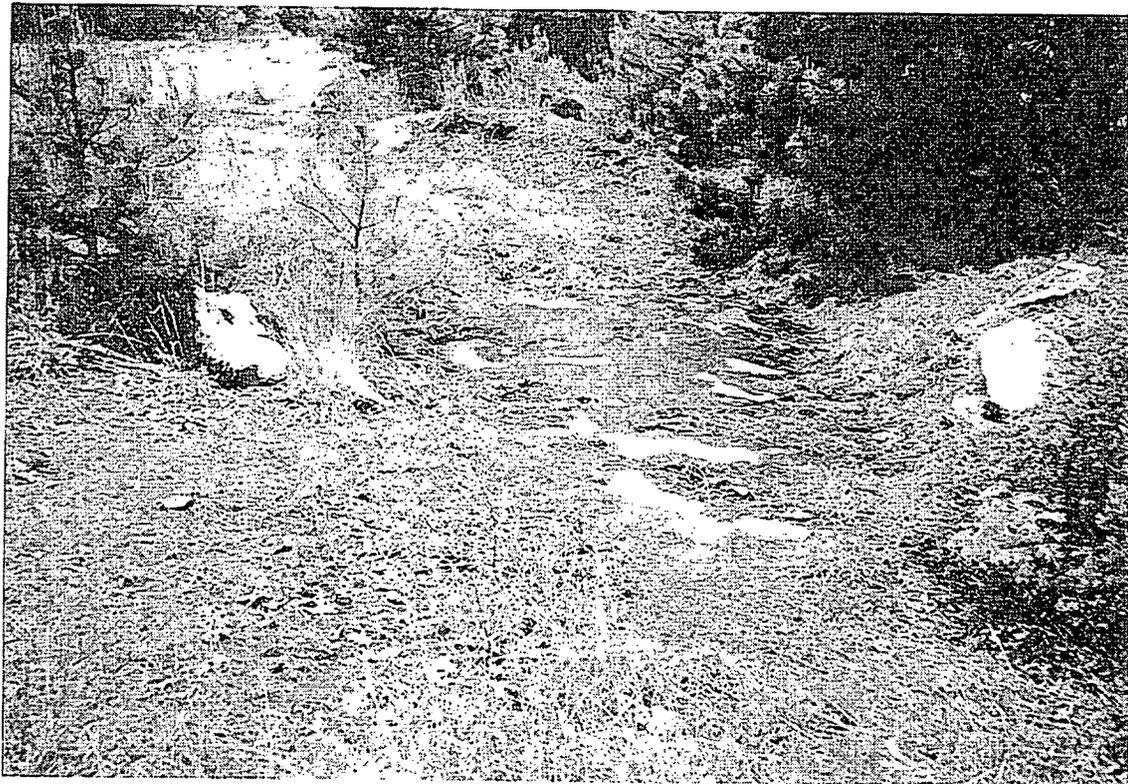
**PHOTODOCUMENTATION**  
**(PROVIDED BY FOSTER WHEELER)**



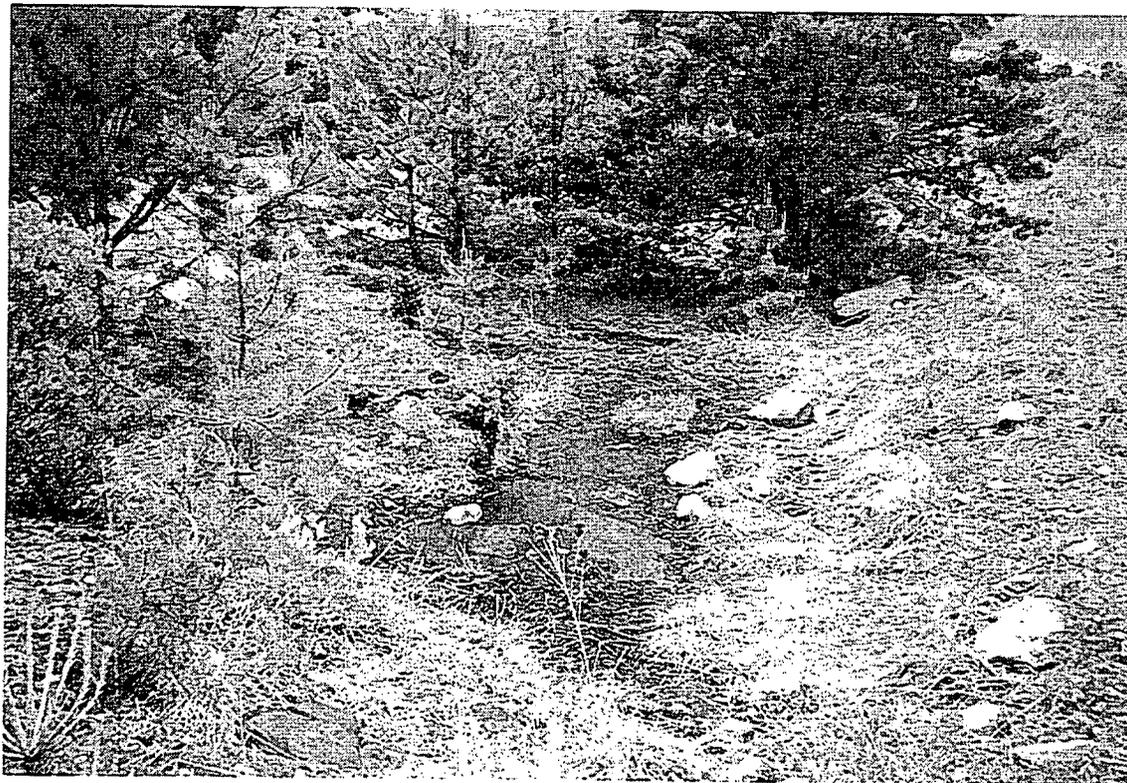
Northwest view of east end of trench at Study Area 4 prior to removal action (May 30, 1996).



Northeast view of east end of trench at Study Area 4 prior to removal action (May 30, 1996).



West view of easterly asphalt pit prior to excavation (May 30, 1996).



West view of westerly asphalt pit prior to excavation (May 30, 1996).



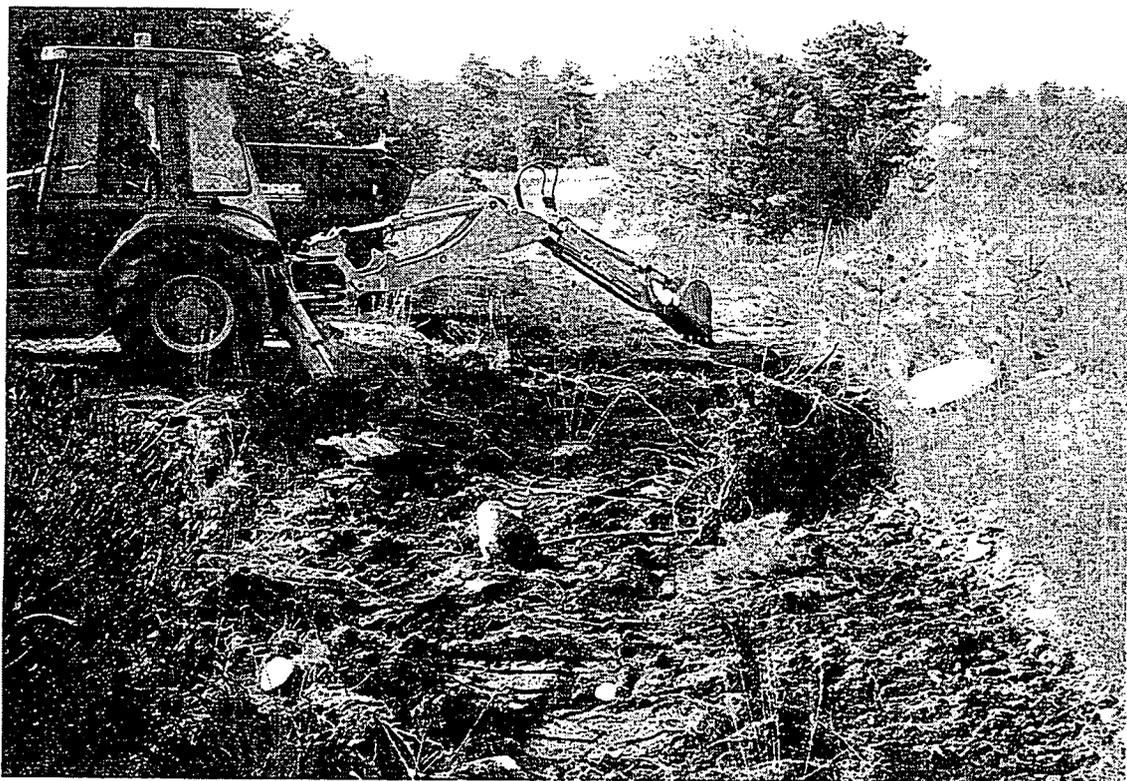
Northwest view of clearing and grubbing activities (May 31, 1996).



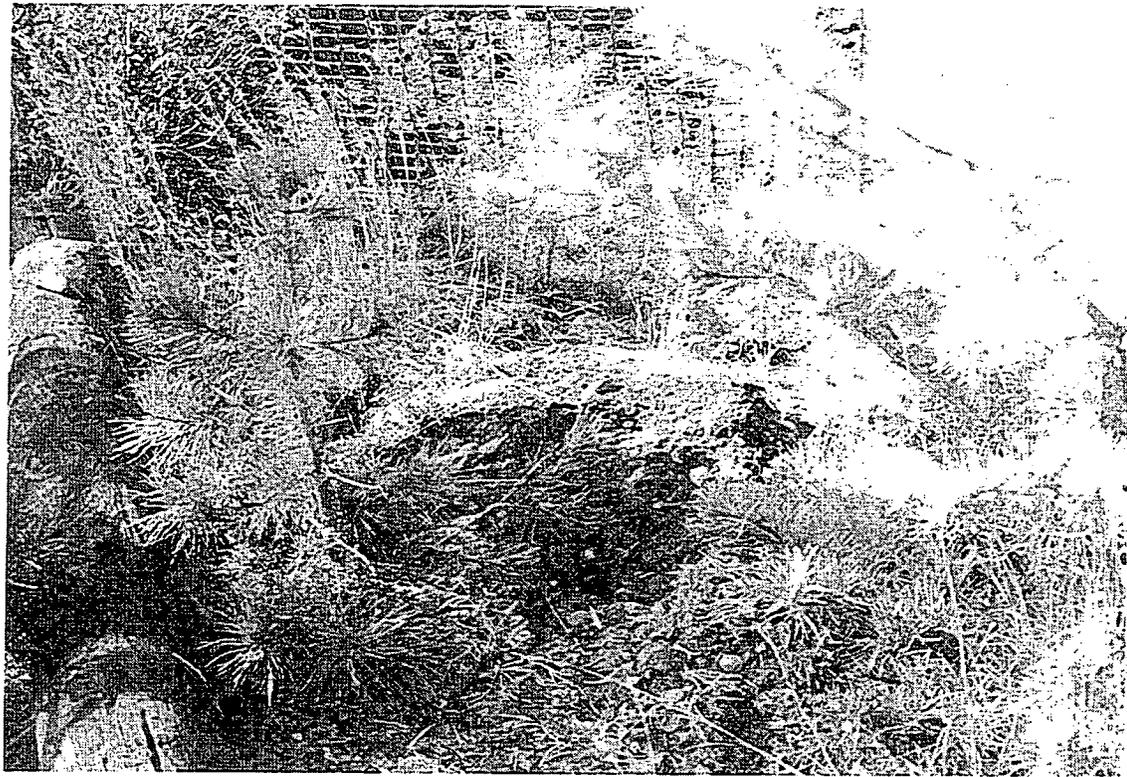
West view of westerly asphalt pit after completion of clearing and grubbing activities (June 6, 1996).



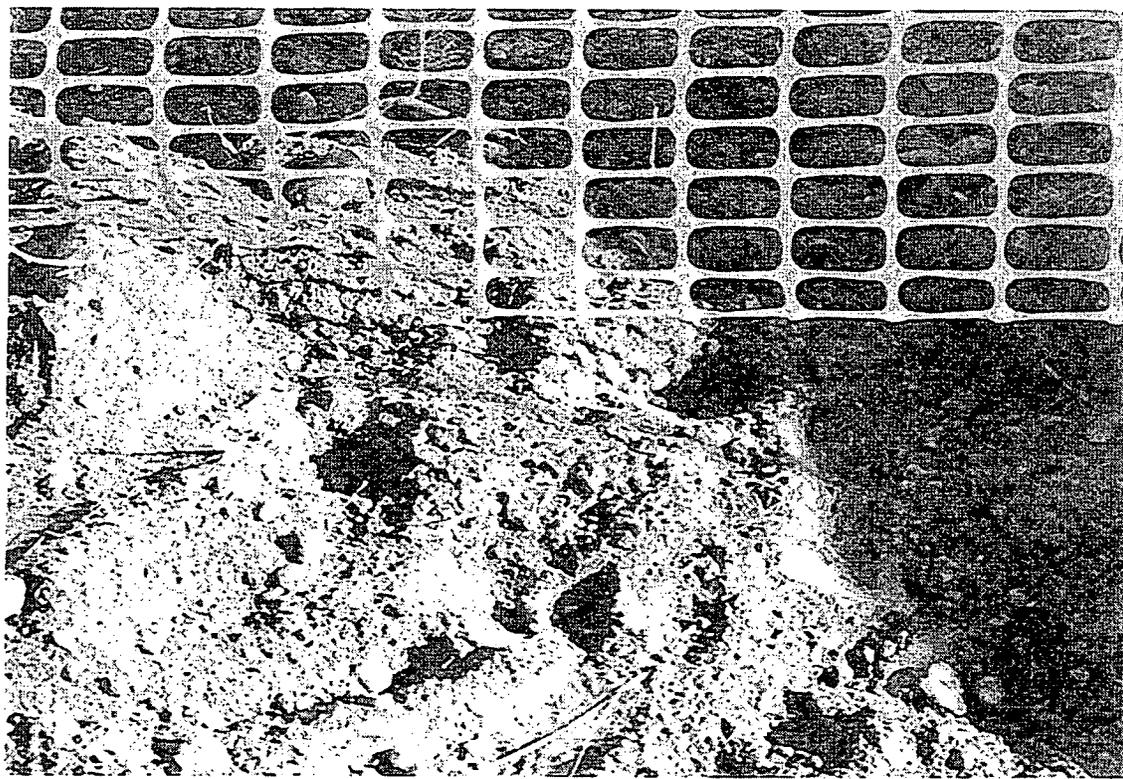
West view of eastern excavation after Round I asphalt and soil removal (November 7, 1996).



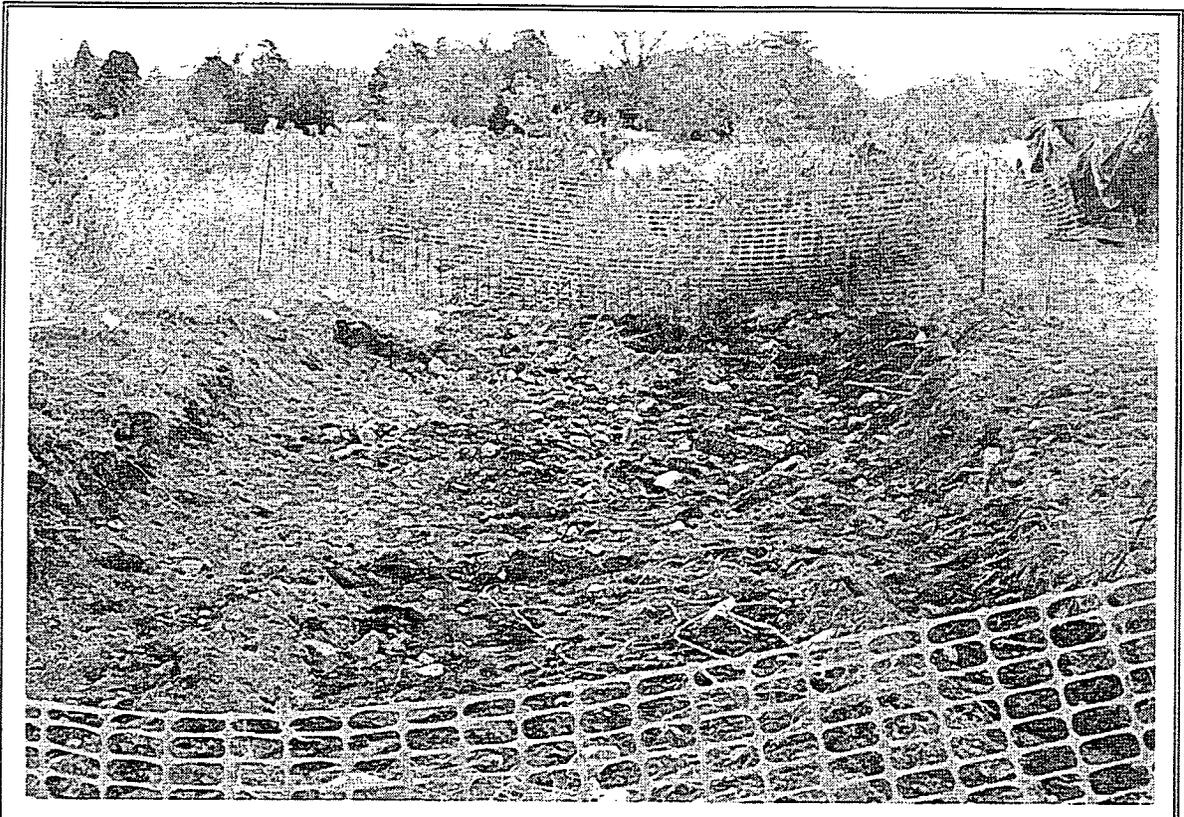
West view of western excavation during Round I asphalt and soil removal (November 8, 1996).



West view of stained soil area between eastern and western excavations (November 20, 1996).



East view of stained soil area just west of western excavation (November 20, 1996).



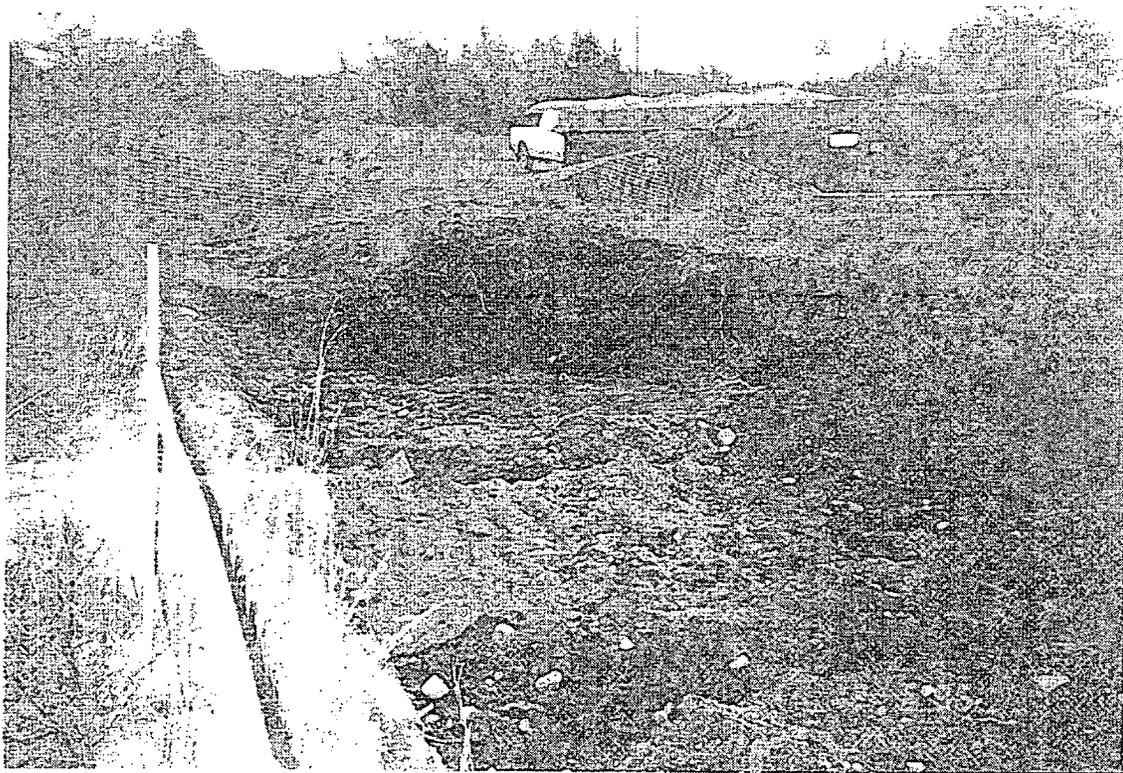
East view of western excavation just prior to Round II confirmatory soil sampling (November 21, 1996).



West view of western excavation just prior to Round II confirmatory soil sampling (November 21, 1996).



East view of western excavation just prior to Round III confirmatory soil sampling (December 3, 1996).



Southeast view of western excavation just prior to Round IV confirmatory soil sampling (December 5, 1996).



West view of eastern excavation backfilled (December 13, 1996).



West view of western excavation being backfilled (December 13, 1996).