



FMC Agreement No. 201192-004

Port Authority Lease No. L-PN-264  
Supplement No. 4

SUPPLEMENTAL AGREEMENT

THIS AGREEMENT, made ab initio as of the 1<sup>st</sup> day of December, 2000, by and between THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY (hereinafter called "the Port Authority") and PORT NEWARK CONTAINER TERMINAL LLC (hereinafter called "the Lessee"),

WITNESSETH, That:

WHEREAS, heretofore and as of December 1, 2000, the Port Authority and the Lessee entered into an agreement of lease (hereinafter, as the said agreement of lease has been amended, modified and supplemented, called "the Lease") covering premises at Port Newark, in the City of Newark, County of Essex and State of New Jersey; and

WHEREAS, the Port Authority and the Lessee desire to amend the Lease;

NOW, THEREFORE, for and in consideration of the foregoing and the agreements hereinafter contained the Port Authority and the Lessee hereby agree as follows:

1. The addendum attached hereto and marked "Addendum No. 1 to Exhibit I to Lease No. L-PN-264 between The Port Authority of New York and New Jersey and Port Newark Container Terminal LLC" is hereby made a part of Exhibit I of the Lease as set forth in Section 9 of the Lease (which addendum is herein and in the Lease referred to as "Addendum I")

2. The paragraph constituting Section 44 of the Lease, commencing with the phrase, "Subject to the provisions" and ending with the phrase, "Section 9 hereof" is hereby deleted in its entirety from the Lease ab initio as of the 1<sup>st</sup> day of December 2000 and the following paragraphs (a) through (f) shall be deemed to have been inserted ab initio as of the 1<sup>st</sup> day of December, 2000 in lieu thereof to read as follows:

"(a) The following terms when used in this Agreement shall have the respective meanings given below:

(1) 'Added Environmental Survey' shall mean Addendum I attached to Supplement No 4 of the Lease, as amended.

(2) 'Added Space' shall collectively mean the open area shown in stipple and the water area shown in honeycomb on Exhibit A, Sheet 4 of the Lease.

(3) 'Effective Date' shall mean June 1<sup>st</sup>, 2002.

(b) Effective at 12:01 o'clock A.M. on the Effective Date, in addition to the premises heretofore let to the Lessee under the Lease, the letting of which shall continue in full force and effect, the Port Authority hereby lets to the Lessee and the Lessee hires and takes from the Port Authority upon all the terms, provisions, covenants and conditions of the Lease, as amended, the Added Space at Port Newark in the City of Newark, in the County of Essex and State of New Jersey, together with the buildings, structures, fixtures, improvements, and other property, if any, of the Port Authority located or to be located or constructed therein or thereon (the Added Space and all of the foregoing buildings, structures, fixtures, improvements, and other property, if any, of the Port Authority being herein collectively called the "Added Premises"), all of the Added Premises to be and become a part of the premises let under the Lease subject to all the terms, provisions, covenants and conditions of the Lease, as amended.

(c) In the event that the Added Environmental Survey indicates that remediation of the Added Space and/or the assumption of additional obligations is required, such remediation and/or additional obligations shall be subject to and in accordance with the provisions of Section 9 of this Agreement.

(d) Effective as of the Effective Date, the Lessee shall pay an annual basic rental to the Port Authority for the Added Premises (which basic rental is herein called the 'Added Premises Basic Rental') throughout the remainder of the term of the letting as follows:

(i) during the period from the Effective Date through November 30, 2002, the Added Premises Basic Rental shall be in the amount of One Hundred Fifty-one Thousand Three Hundred Fifty-seven Dollars and Fifty Cents (\$151,357.50) per annum and shall be payable in advance in equal monthly installments of Twelve Thousand Six Hundred Thirteen Dollars and Thirteen Cents (\$12, 613.13) on the first day of each calendar month thereafter occurring during such period; and

(ii) during the period from December 1, 2002 through November 30, 2030, the Added Premises Basic Rental shall be in the amount of Two Hundred One Thousand Eight Hundred Ten Dollars and No Cents (\$201,810.00) per annum and shall be payable in advance in equal monthly installments of Sixteen Thousand Eight Hundred Seventeen Dollars and Fifty Cents (\$16,817.50) on the first day of each calendar month thereafter occurring during such period, as the same shall be adjusted in accordance with the provisions of paragraph (e) of this Section

(e) The Added Premises Basic Rental set forth in paragraph (d)(ii) of this Section, as the same may have been most recently adjusted in accordance with this paragraph (e), shall be adjusted during the term of the letting in accordance with the provisions of this paragraph (e).

(1) As used in this paragraph (e):

(i) 'Index' shall mean the Consumer Price Index for All Urban Consumers - New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items, unadjusted 1982-84=100) published by the Bureau of Labor Statistics of the United States Department of Labor.

(ii) 'Added Premises Basic Rental Base Period' shall mean, as the context requires, the calendar month of November 2001 and the calendar month of November (excluding November 2029 and 2030) in each calendar year which thereafter occurs during the term of the letting under this Agreement.

(iii) 'Added Premises Basic Rental Adjustment Period' shall mean, as the context requires, the calendar month of November 2002 and the calendar month of November (excluding November 2030) in each calendar year which thereafter occurs during the term of the letting under this Agreement.

(iv) 'Added Premises Basic Rental Adjustment Date' shall mean, as the context requires, December 1, 2002 and each anniversary of such date which thereafter occurs during the term of the letting under this Agreement.

(v) 'Added Premises Basic Rental Percentage Increase' shall mean the percentage of increase in the Index on each Added Premises Basic Rental Adjustment Date equal to a fraction the numerator of which shall be the Index for the Added Premises Basic Rental Adjustment Period immediately preceding such Added Premises Basic Rental Adjustment Date less the Index for the Added Premises Basic Rental Base Period preceding such Added Premises Basic Rental Adjustment Period by one year and the denominator of which shall be the Index for the Added Premises Basic Rental Base Period preceding such Added Premises Basic Rental Adjustment Period by one year.

(2) Commencing on each Added Premises Basic Rental Adjustment Date and for the period commencing with such Added Premises Basic Rental Adjustment Date and continuing through to the day preceding the next Added Premises Basic Rental Adjustment Date, or the expiration date of the term of the letting under this Agreement, as the case may be, both dates inclusive, in lieu of the Added Premises Basic Rental set forth in paragraph (d)(ii) of this Section the Lessee shall pay a Added Premises Basic Rental at a rate per annum equal to the greater of:

(i) the sum obtained by adding to the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date (including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) the product obtained by multiplying such Added Premises Basic Rental by one hundred percent (100%) of the Added Premises Basic Rental Percentage Increase for such Added Premises Basic Rental Adjustment Date; provided, however, that for purposes of the calculation of the Added Premises Basic Rental payable for the one-year period commencing on December 1, 2002, the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date shall be deemed to be set forth in paragraph (e)(ii) of this Section; or

(ii) the product obtained by multiplying the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date (including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) by one hundred two and five one-hundredths percent (102.5%); provided, however, that for purposes of the calculation of the Added Premises Basic Rental payable for the one-year period commencing on December 1, 2002, the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date shall be deemed to be the Added Premises Basic Rental set forth in paragraph (d)(ii) of this Section

(3) Notwithstanding any other provision of this Agreement, the Added Premises Basic Rental that shall be payable pursuant to paragraph (d)(ii) of this Section and this paragraph (e) commencing with each Added Premises Basic Rental Adjustment Date and continuing through to the day preceding the following Added Premises Basic Rental Adjustment Date, or the expiration date of the term of the letting under this Agreement, as the case may be, both dates inclusive, shall in no event exceed the product obtained by multiplying the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date (including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) by one hundred four percent (104%); provided, however, that for purposes of the calculation of the Added Premises Basic Rental payable for the one-year period commencing on December 1, 2002, the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date shall be deemed to be the Added Premises Basic Rental set forth in paragraph (d)(ii) of this Section. For example, if the Added Premises Basic Rental Percentage Increase for the calendar month of November, 2002 is shown to be three percent (3%) then the Added Premises Basic Rental payable under paragraph (d)(ii) of this Section and this paragraph (e) for the one-year period commencing December 1, 2002 shall be \$201,810.00 plus three percent (3%) thereof or \$207,864.30, but if (1) said increase is shown to be two percent (2%) or less then the Added Premises Basic Rental for that one-year period shall be \$206,855.25, and if (2) said increase is shown to be five percent (5%) or more then the basic annual rental for that one-year period shall be \$209,882.40.

(4) In the event the Index to be used in computing any adjustment referred to in paragraph (b) of this Section is not available on the effective date of such adjustment, the Lessee shall continue to pay the Added Premises Basic Rental at the annual rate then in effect subject to retroactive adjustment at such time as the specified Index becomes available, provided, however, that the Port Authority may at its option substitute for such Index the Index for the latest preceding month then published to constitute the specified Index. In the event the United States Consumer Price Index for All Urban Consumers - New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items, unadjusted 1982-84=100) shall hereafter be converted to a different standard reference base or otherwise revised or the United States Department of Labor shall cease to publish the United States Consumer Price Index for All Urban Consumers - New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items, unadjusted 1982-84=100), then for the purposes hereof there shall be substituted for the Index such other appropriate index or indices properly reflecting changes in the value of current United States money in a manner similar to that established in the Index used in the latest adjustment as the Port Authority may in its discretion determine.

(5) If after an adjustment in Added Premises Basic Rental shall have been fixed for any period, the Index used for computing such adjustment shall be changed

or adjusted, then the rental adjustment for that period shall be recomputed and from and after notification of the change or adjustment, the Lessee shall make payments based upon the recomputed rental and upon demand shall pay any excess in the Added Premises Basic Rental due for such period as recomputed over amounts theretofore actually paid on account of the Added Premises Basic Rental for such period. If such change or adjustment results in a reduction in the Added Premises Basic Rental due for any period prior to notification, the Port Authority will credit the Lessee with the difference between the Added Premises Basic Rental as recomputed for that period and amounts of Added Premises Basic Rental actually paid.

(6) If any adjustment of Added Premises Basic Rental referred to in this paragraph (e) of this Section is effective on a day other than the first day of a calendar month, there shall be payable in advance on the effective date of rental adjustment an installment of Added Premises Basic Rental equal to 1/12th of the increment of annual Added Premises Basic Rental as adjusted multiplied by a fraction, the numerator of which shall be the number of days from the effective date of the rental adjustment to the end of the calendar month in which the rental adjustment was effective and the denominator of which shall be the number of days in that calendar month.

(f) The Lessee acknowledges that it has not relied upon any representation or statement of the Port Authority or its Commissioners, officers, employees or agents as to the condition of the Added Premises or the suitability thereof for the operations permitted on the Added Premises by this Agreement. The Port Authority shall deliver the Added Premises in its presently existing 'as is' condition. The Lessee, prior to the execution of Supplement No. 4 to the Lease, thoroughly examined the Added Premises as existing and has found the same to be suitable and satisfactory for the operations of the Lessee contemplated and permitted under this Agreement. The Lessee agrees to and shall take the Added Premises in its 'as is' condition and the Port Authority shall have no obligations under this Agreement for finishing work or preparation of any portion of the Added Premises for the Lessee's use. Without limiting any obligation of the Lessee to commence operations under this Agreement at the time and in the manner stated elsewhere in this Agreement, the Lessee agrees that no portion of the Added Premises will be used initially or at any time during the letting which is in a condition unsafe or improper for the conduct of the operations of the Lessee, so that there is possibility of injury or damage to life or property, and the lessee further agrees that before any use it will immediately correct any such unsafe or improper condition."

3. Effective as of the Effective Date, subparagraph (a)(29) of Section 9 of the Lease shall be deemed amended by redesignating clause (iv) of said subparagraph (a)(29) as clause "(v)" and by inserting the following new clause (iv) immediately after clause (iii) thereof to read as follows:

"(iv) the area within a radius of one hundred (100) feet from Soil Boring MW-1 as identified in the Initial Environmental Survey, "

4. It is recognized that the RAW contained tests results for certain Analyzed Items for monitoring wells MW-5 and MW-11 identified in the Initial Environmental Survey which were different than the test results set forth in the Initial Environmental Survey. It is hereby agreed that the test results set forth in the exhibit attached hereto, hereby made a part

hereof and marked "Exhibit I-A" and entitled "Addendum No. I to Initial Environmental Survey" shall be and become a part of the Initial Environmental Survey and the ground water test results for each of the Analyzed Items set forth in Exhibit I-A attached hereto shall with respect to monitoring wells MW-5 and MW-11 replace the tests results for such Analyzed Items set forth in the Initial Environmental Survey attached to the Lease when it was executed, provided, however, in making any determination of the concentration of arsenic in the ground water at the locations of MW-5 and MW-11, the ground water at the locations of MW-5 and MW-11 shall be sampled and analyzed using the United States Environmental Protection Agency low-flow sampling methods to minimize turbidity.

5. Without waiving any rights or remedies of the Port Authority or any obligations of the Lessee under the Lease as herein amended, including without limitation paragraph (n) of Section 9 of the Lease, as herein amended, the Lessee agrees that it shall promptly locate, overdrill and decommission at its sole cost and expense and in accordance with all Environmental Requirements, including without limitation NJAC7:9-9.1, the wells located on the premises that were installed as part of the Initial Environmental Survey. Without limiting the generality of the foregoing, a Well Abandonment Report is to be completed for each well and signed by the certified well sealer performing the work. If during the overdrilling, the well cannot be found, the certified well sealer must indicate in the Well Abandonment Report that every effort has been made to locate the well and provide an explanation as to why the well cannot be located. Photo documentation showing the overdrilling at the location of the former well is to be performed. All Well Abandonment Reports, including photo documentation, is to be provided to the Manager of the Facility.

6. Neither the Commissioners of the Port Authority nor any of them, nor any officer, agent or employee thereof, shall be charged personally by the Lessee with any liability, or held liable to the Lessee under any term or provision of this Agreement, or because of its execution or attempted execution, or because of any breach, or attempted or alleged breach thereof.

7. This Agreement, together with the Lease (to which it is supplementary) constitutes the entire agreement between the Port Authority and the Lessee on the subject matter, and may not be changed, modified, discharged or extended except by instrument in writing duly executed on behalf of both the Port Authority and the Lessee. The Lessee agrees that no representations or warranties shall be binding upon the Port Authority unless expressed in

writing in the Lease or in this Agreement.

IN WITNESS WHEREOF, the Port Authority and the Lessee have executed these presents as of the date first above written.

ATTEST:

*[Handwritten Signature]*  
\_\_\_\_\_  
(Secretary)

THE PORT AUTHORITY OF NEW YORK  
AND NEW JERSEY

By *[Handwritten Signature]*  
\_\_\_\_\_  
RICHARD M. LARRABEE  
(Title) DIRECTOR, PORT COMMERCE DEPT.  
\_\_\_\_\_  
(Seal)

WITNESS:

*[Handwritten Signature]*  
\_\_\_\_\_  
(Secretary)

PORT NEWARK CONTAINER  
TERMINAL LLC

By *[Handwritten Signature]*  
\_\_\_\_\_  
DONALD P. HAMM  
(Title) President/MANAGER  
\_\_\_\_\_  
(Seal)

*[Handwritten Signature]*  
JoAnn A. McAleer  
NOTARY PUBLIC OF NEW JERSEY  
Commission Expires 10/16/2007

*[Handwritten Signature]*  
Garry Willmot  
Manager

*[Handwritten Signature]*  
Audrea Gae

**APPROVED:**  
FORM | TERMS  
*[Handwritten Initials]* | *[Handwritten Initials]*

Exhibit A-1

Amendment No. 1 to Initial Environmental Survey

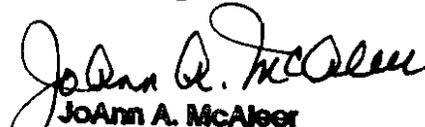
	MW-5	MW-11
Silver	1.5	ND
Arsenic	8	8
Chromium	2.1	ND
Copper	1.3	1.1
Thallium	ND	9.1
Nickel	ND	4.4
Selenium	2.2	ND
Zinc	36.1	38.4

Note: Values are stated in parts per billion

Initialed:

  
For the Port Authority

  
For the Lessee

  
JoAnn A. McAleer  
NOTARY PUBLIC OF NEW JERSEY  
Commission Expires 10/16/2007

**ADDENDUM NO. 1**

**to EXHIBIT I**

**to Lease No. L-PN-264**

**Between**

**THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY**

**And**

**PORT NEWARK CONTAINER TERMINAL LLC**

**Initialed**

*puw*  
\_\_\_\_\_  
For the Port Authority

*JPH*  
\_\_\_\_\_  
For the Lessee

*JAM*  
*JoAnn A. McAleer*  
JoAnn A. McAleer  
NOTARY PUBLIC OF NEW JERSEY  
Commission Expires 10/16/2007

**ADDED PREMISES  
SUBSURFACE BASELINE REPORT  
PORT NEWARK CONTAINER TERMINAL LLC**

**JULY 2001**

**THE ADDED PREMISES  
PORT NEWARK CONTAINER TERMINAL LLC  
ENVIRONMENTAL BASELINE ASSESSMENT**

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## SECTION 1.0

### INTRODUCTION

The purpose of this report is to establish surface and subsurface baseline conditions for an approximately 3.0 acre parcel of the former Naparano Iron and Metal Company (site). The location of the site is shown on Figure 1. The approximately 3.0 acre area is shown in Figure 2. The investigation on this portion of the property included the installation of 5 soil borings, 2 of which were completed as monitoring wells. Locations of the soil borings and monitoring wells are shown on Figure 3.

The work performed as part of this investigation was conducted in accordance with *Technical Requirements for Site Remediation* (TRSR) (N.J.A.C 7:26E) and the New Jersey Department of Environmental Protection's (NJDEP) *Field Sampling Procedures Manual*, May 1992.

The sampling results were compiled into data summary tables to document existing conditions at the particular sample locations.

## SECTION 2.0

### FIELD ACTIVITIES

In order to characterize the site in regard to potential contaminants and provide information about the geology and hydrogeology, a total of 5 soil borings were installed at the site. 2 of the 5 borings were completed as monitoring wells. The locations of the soil borings and monitoring wells are presented in Figure 3. In general, the soil borings were advanced until groundwater was observed in order to evaluate the potential for the presence and migration of hazardous substances.

#### 2.1 SOIL SAMPLING PROGRAM

The soil sampling program investigation followed the requirements specified in N.J.A.C. 7:26E-3.6. At all boring locations the first 6 to 8 ft of soils were drilled and sampled using a hand auger in an attempt to limit any contact with underground utilities. Soil borings were completed using a 4 and 5/8 inch inside diameter hollow-stem auger. After penetration of surface features, continuous split-spoon soil samples were collected at 2-foot intervals using a 2-inch-diameter split-spoon. All soils were (hand-auger samples and split-spoon cores) characterized by the on-site geologist and screened using an HNu photoionization detector. Additionally, HNu readings were recorded in the breathing zone of the on-site workers, and headspace readings were recorded from soil samples collected from each discrete 2-foot sampling interval. All information was recorded on boring log forms or in bound field logbooks.

Ten discrete soil samples were collected for contract laboratory analysis. For each boring, one soil sample was collected at a depth of 6 to 18 inches below the soil surface and a second sample procedure was collected at a distance of 0 to 6 inches above the saturated zone. HNu readings of the headspace from each sampling interval ranged from 0.0 to 1.0 parts per million (ppm). Field screening results along with the boring logs are provided as Appendix A. All soil samples were analyzed for total petroleum hydrocarbons (TPHC) and the complete list of priority pollutants with a forward library search (PP+40), including xylenes. Soil samples for volatile analysis were collected using methanol extraction methodology. In addition to collecting soil samples, trip blanks were submitted for laboratory analyses during the soil sampling task of this investigation. Field blanks and duplicate samples were not collected during the soil sampling phase of the investigation. All Quality Assurance/Quality Control (QA/QC) procedures are detailed in Section 2.3 of this report.

Soil samples were transferred immediately to laboratory prepared sample containers, labeled, packed, and shipped for analysis in accordance with N.J.A.C. 7:26E 2.1. Soil samples were processed and labeled consistent with Section 2.3.3 of this document. Furthermore, sample chain-of-custody's (COCs) were prepared for all samples collected as part of this investigation. Sample documentation and COCs were prepared consistent with procedures detailed in Section 2.3.3. Each piece of sampling equipment was decontaminated prior to use at each new sample location and

prior to sampling the respective soil strata. All sampling equipment was constructed of stainless steel. For additional information on equipment decontamination procedures, see Section 2.3.2. Upon completion of each boring location, all soils and derived waste generated were handled consistent with the site specification Waste Management Plan detailed in the site-specific investigation work plan.

## **2.2 GROUNDWATER SAMPLING PROGRAM**

The groundwater investigation was conducted as per N.J.A.C. 7:26E-3.7. The program included the installation of two overburden on-site monitoring wells. The wells were installed in select boreholes created during the soil boring program. Approximate locations of these wells are shown on Figure 3. Craig Drilling, Inc. (a New Jersey-licensed well driller) installed the monitoring wells. The well driller obtained the required NJDEP well permits. The monitoring well construction logs are included in Appendix A.

### **2.2.1 Monitoring Well Installation**

Well construction materials consisted of 2-inch-diameter, schedule 40 PVC, well screens and riser pipe. The monitoring wells were constructed with 0.020-inch (20 slot) well screens; location-specific geologic conditions dictated well screen length. The well screens ranged in length from 10 to 15 ft in length. Groundwater was encountered during the drilling activities at approximately 8.0 ft bgs. The annular space between the well screen and the formation was filled with filter pack to an elevation approximately 2 ft above the top of the screen. The remaining filter pack consisted of approximately 1 foot of finer sand on top of the filter pack. This finer filter pack was designed to act as a sand choke between the formation material and the well materials, and to limit the potential for grout to enter the well from above.

A bentonite seal was emplaced above the filter pack to prevent infiltration to the cement grout into the filter pack and well screen. The seal thickness was dependent on the stratigraphy at each location and ranged from 0.5 to 1.0 ft.

A cement-bentonite grout mixture was placed above the seal and extended to ground surface. All wells were completed with flush-mount construction casings. Cement pads were constructed around each well to provide drainage away from the wells. Protective PVC caps were placed on the PVC riser pipe. Locks were placed on the outside of the protective casings. Metal tags with the monitoring well I.D. number and the NJDEP well permit number were affixed to the manhole covers. Each well was given a locking vacuum cap. A concrete pad was constructed and a flush-mounted manhole cover was grouted in place to secure these locations.

### **2.2.2 Well Development**

Each monitoring well was developed in accordance with the TRSR. Monitoring well development was performed in order to meet the following objectives:

- Remove materials that may have accumulated in the openings of the well screen during installation, and key the well screen and filter pack into the formation being monitored.
- Remove fine materials from the sides of the borehole that resulted from drilling procedures.
- Stabilize the fine materials remaining in the vicinity of the well to retard their movement into the well, increasing well yield.
- Provide an estimate of the well yield.

Monitoring well development was accomplished by over pumping the well using an appropriately sized pump. The pump was field-decontaminated, and new dedicated polyethylene tubing was used for each individual discharge line. To ensure that fine materials were removed during development, the pump intake was raised and lowered across the entire length of the well screen. Additionally, the pump was turned off and on and pumped at different rates during development to cause a surge effect to remove additional fine materials.

During development, field measurements of temperature, pH, specific conductivity, turbidity, and at some locations, salinity were obtained at the beginning of development, during development and upon completion of development. Observations related to groundwater appearance were recorded.

The development procedures for the monitoring wells continued until the following goals were met or exceeded:

- Discharge became clear.
- Flow rate stabilized.
- At least five volumes of water were removed and the well pumped for a minimum of 4 hours.
- Turbidity readings were less than 50 NTUs as determined by a nephelometer.

### 2.2.3 Water Sampling Procedure Summary

Groundwater sampling occurred on 21 September 1999 (at least 2 weeks after development of the last well installed on-site). During the groundwater sampling program, all monitoring wells were purged and sampled using low-flow protocol, a field-decontaminated pump equipped with

new, dedicated polyethylene, teflon-lined discharge tubing. During purging, wells were pumped at a low rate (lower than the recharge rate) so that the drawdown was kept to the lowest possible amount. Water level measurements were taken to ensure that the water column was not purged to dryness.

While monitoring wells were purged, water quality parameters including temperature, pH, and specific conductivity stabilized (less than 10% variation), and turbidity levels were less than 50 NTUs. Purge rates for wells did not exceed the purge rates at which the monitoring wells were developed. During well purging, groundwater was monitored for the presence of Volatile Organic Compounds (VOCs). Additional groundwater quality parameters including Eh (millivolts), salinity, and dissolved oxygen were obtained to provide additional water quality data. The groundwater sampling procedure employed during the sampling event is provided below.

1. Measure static water level in monitoring well using an electronic water level device to minimize disturbance to the water column.
2. Check for free product or sheen floating on water surface in the well.
3. Position low-flow pump in the water column with the intake placed at a point between the middle and top of the screened interval.
4. Purge the well using a low flow rate (<0.5 l/min) until indicator parameters (i.e., pH, conductivity, oxygen, etc.) have stabilized (Note: Goal during purging is to limit drawdown to < 0.1 m).
5. Collect groundwater samples using same flow rates as established during purging.
6. Fill sample bottles directly from the pump discharge avoiding excessive agitation of sample. Fill VOA sample vials first, then remaining sample bottles.
7. Pumps used for groundwater sampling will be decontaminated prior to use according to the procedures described herein. One sample shall be collected from each monitoring well. All samples are to be separate grab samples.

Each water sample was analyzed for TPHC, PP+40, VOCs + 15, total dissolved solids and total chlorides. Temperature, pH, and specific conductivity were measured in the field. Groundwater COCs and labeling procedures are detailed in Section 2.3.3.

## **2.3 QUALITY ASSURANCE AND QUALITY CONTROL**

In order to generate analytical data of known and defensible standards, quality assurance (QA) and quality control (QC) protocols for sampling and laboratory analysis complied with requirements specified in N.J.A.C. 7:26E-2.1. This was conducted to ensure that samples obtained in the field were representative of the particular environment from which they were collected and were of satisfactory quality to meet the project objectives.

### **2.3.1 QA/QC Samples**

#### **2.3.1.1 *Field Blanks***

A field blank composite sample was taken during the groundwater sampling portion of the investigation. A field blank was conducted using two identical sets of cleaned sample containers. One set of containers was empty and served as the sample containers to be analyzed. The second set of containers was filled with laboratory-demonstrated analyte-free water. At the field location, the analyte-free water was poured over the clean sample equipment (pump) and placed in the empty sample containers for analysis. The field blank was handled, transported, and analyzed in the same manner as samples acquired that day. The field blank was performed at the rate of one per sampling day per type of sampling equipment, and packaged with its associated matrix. The field blank for groundwater was analyzed for all of the same parameters as the samples collected that day.

#### **2.3.1.2 *Trip Blanks***

Trip blanks are required only for aqueous sampling events for volatile organics and for soil samples collected with the methanol preservation method. Sample bottles for aqueous trip blanks were filled at the laboratory with laboratory-demonstrated analyte-free water. Sample bottles for trip blanks associated with the volatile soil samples collected using the methanol preservation method were filled and weighed at the laboratory with pesticide-grade methanol. The trip blanks traveled with the sample bottles and are not opened in the field. They are handled, transported, and analyzed along with the other samples. For aqueous samples, one trip blank must be provided per shipment or 2-day sampling event. For soil samples collected using the methanol preservation method, one trip blank must accompany each sample shipment.

### **2.3.2 EQUIPMENT DECONTAMINATION**

#### **2.3.2.1 *Sampling Equipment Decontamination***

All soil and groundwater sampling equipment, except heavy machinery and submersible pumps, were decontaminated using these procedures.

Soil sampling equipment was decontaminated according to the following procedure:

1. Non-phosphate detergent plus tap water wash.
2. Tap water rinse.
3. Distilled/deionized water rinse.

Groundwater sampling equipment was decontaminated and packaged in the laboratory, and dedicated for exclusive use at one sample location only. The laboratory utilized the following decontamination procedure:

1. Non-phosphate detergent plus tap water wash.
2. Tap water rinse.
3. Distilled/deionized water rinse.
4. 10% nitric acid solution rinse.
5. Distilled/deionized water rinse.
6. Methanol (pesticide-grade) rinse.\*
7. Total air dry.
8. Distilled/deionized water rinse.

\* Methanol was used in place of acetone since acetone is a target analyte.

All decontaminated sampling equipment shall be stored and handled as appropriate to prevent contamination. Information concerning the decontamination methodology, date, time, and personnel was recorded in the field logbook.

#### **2.3.2.2 Heavy Machinery Decontamination**

Prior to use on-site, heavy equipment was steam cleaned or manually washed. Parts that were prone to contact with contaminated materials required more frequent cleaning to prevent cross-contamination of environmental samples. For example, augers and split-spoon sampling devices were steam cleaned between sampling locations.

#### **2.3.2.3 Pump Decontamination**

The pump used for evacuation of water from monitoring wells prior to sample collection was decontaminated to eliminate the possibility of contamination introduced by pump insertion.

The pump was cleaned and flushed between use at each monitoring well. The outside of the pump was manually washed using non-phosphate detergent and water, followed by a potable (tap) water rinse. The pump was then flushed with 20 gallons of potable water pumped through the housing and hose. After completion of the flushing, the exterior housing was rinsed with distilled and deionized water. Rinsate from the pump decontamination was collected in drums for disposal. After each use, the hose was cut up into manageable-sized pieces and disposed of with other investigation-derived wastes.

#### **2.3.2.4 Monitor Well Casing and Screen Decontamination**

Before installation, well casings and screens were manually scrubbed in the field to remove foreign material. Casings and screens were also thoroughly steam cleaned to remove all traces of oil and grease which may have been present, especially at threaded joints. Casings were carefully handled and stored to prevent cross-contamination prior to installation.

#### **2.3.3 SAMPLE DOCUMENTATION**

During sampling, all activities were recorded in a logbook to provide an accurate record of the sampling event and the procedures followed. Entries made by sampling personnel in the logbook included:

- Date/Time/Weather
- Sampler/Geologist/Soil Scientists' Names
- Sample Point Identification (including location, matrix, and sample depth)
- Sketch Showing the Sampling Point Location (including reference distances)
- Soil Profile
- Sample Size
- Sampling Equipment Used
- Field Measures (where appropriate)
- General Comments (e.g., odor, staining, etc.)

The field crew also labeled each sample container with the appropriate information necessary to identify the sample as listed below:

- Unique Sample Identification Number
- Date
- Time of Sampling
- Name
- Preservation
- Analyses
- Sampler's Initials

This information was then supplemented and cross referenced on a Chain-of-Custody form, providing documentation of the handling of each sample from collection to arrival at the laboratory.

A Chain-of-Custody form containing the information listed below was completed by the field crew and signed by the sampler and all personnel handling the samples before the samples were relinquished to the laboratory. The Chain-of-Custody form should contained the following information:

- Project Name
- Date

- Sampler's Initials
- Sample Identification Number
- Name/Description of Sample (Analytical Parameters)
- Preservation
- Number of Containers
- Holding Conditions and Locations
- Signature of all Handlers and Date and Time of Transfers
- Organization or Affiliation of all Handlers and Reason for Transfer

All samples were preserved at the time of collection and packaged in coolers of sufficient size to hold all containers, ice, and packing material to prevent breakage. Coolers were of suitable type and integrity to transport the samples.

At the laboratory, receipt of samples was recorded on the Chain-of-Custody form by laboratory personnel. The original or a copy of the form was returned to the shipper. The Chain-of-Custody record was checked by laboratory personnel against the information regarding the analysis requested. If any discrepancies were discovered, they were resolved with the person requesting the analysis and recorded to provide a permanent record of the event. A record of the information detailing the handling of a particular sample through each stage of analysis was provided by completing a laboratory chronicle form. This form typically provides the following information:

- Job Reference
- Sample Matrix
- Sample Number
- Date Sampled
- Date and Time Received by Laboratory
- Holding Conditions
- Analytical Parameter
- Extraction Date/Time and Extractor's Initials
- Analysis Date/Time and Analyst's Initials
- QA Batch Number, Date Reviewed, and Reviewer's Initials

#### **2.3.4 LABORATORY ANALYTICAL QUALITY ASSURANCE PROCEDURES**

Analyses of samples were performed in accordance with NJDEP and U.S. Environmental Protection Agency (USEPA) Methodologies.

The contract laboratory provided sample containers for the requested analyses appropriate for analysis of each matrix. The sample containers were of sufficient size to permit replicate analyses to be run from the sample matrix. All unused portions of samples were archived by the laboratory until written notification from the Port Authority regarding their disposition is received. The contract laboratory will also retain samples and sample extracts in a sample archive for future analyses if requested by Port Authority representatives.

Calibration and periodic inspection of laboratory instruments was in accordance with USEPA and/or the manufacturer's specifications. Reference standards and QC samples (spikes, blanks, and duplicates) were used as necessary to determine the accuracy and precision of procedures, instruments, and operators. If QC sample analysis results indicate QC values outside the control limit range, sample analysis was suspended until the instrument was recalibrated. In general, the following quality control requirements apply to all samples:

- Analysis of an appropriate blank with every set.
- Analysis of at least one standard at midrange concentration (preferably an additional standard near the detection level).
- Annual analysis of external reference samples.
- Annual analysis of split or double blind samples.
- Determination of a detection limit for each method and parameter.
- Laboratories must keep records of the following information:
  - Date, title, analytical method name, and reference
  - Time of analysis
  - Details of methods not specified in referenced procedures, sample numbers
  - All raw data (measurements)
  - Calculations
  - Results
  - Equipment used, and instrumental parameters
  - Analyst signature or initials.
- QC data was reported with the analytical results.

The laboratory provided as a final report reduced-data deliverables as per N.J.A.C 7:26E, Appendix A, Sections III and IV.

## 2.4 WASTE MANAGEMENT

Types of waste material generated during the site investigation included soil drilling cuttings, monitoring well development groundwater, decontamination rinsates, expendable materials, and personal protective equipment (e.g., gloves, towels, etc.).

Soil cuttings from borings and holes converted to monitoring wells were inspected for contamination by field observation (visual and odor) and instruments (H<sub>2</sub>Nu meter). When the material was not contaminated based on field observations, the facility environmental coordinator located an area at the work site to reuse the material as backfill. The material may have been used on-site in areas outside the work area, providing the area had similar subsurface characteristics or results of the soil analysis are below the residential cleanup criteria. This determination was the responsibility of the facility environmental coordinator. Material that could not be reused on-site

was properly disposed off-site utilizing the Port Facility Call-in Disposal Contractor.

Prior to pumping water from a monitoring well, a sample was obtained using a clear bottom teflon bailer. The water sample was inspected for contamination by observation (visual and odor), HNu measurements, and field tests (pH). If the water was not contaminated based on the field inspection, the water was reapplied to the ground surface in a manner not to allow water to run off-site or over stained areas.

## SECTION 3.0

### SURVEYING

The final latitude, longitude and elevation to the nearest 0.01 ft of all installed borings and wells were recorded in North American Datum (NAD ) 27 format. Elevation was measured from the top of the well casing. This information is presented in Appendix B.

## SECTION 4.0

### RESULTS

#### 4.1 SOIL SAMPLING RESULTS

The analytical results of the 10 soil samples and associated trip blanks collected by Port Authority personnel are contained in Tables 1 – 6.

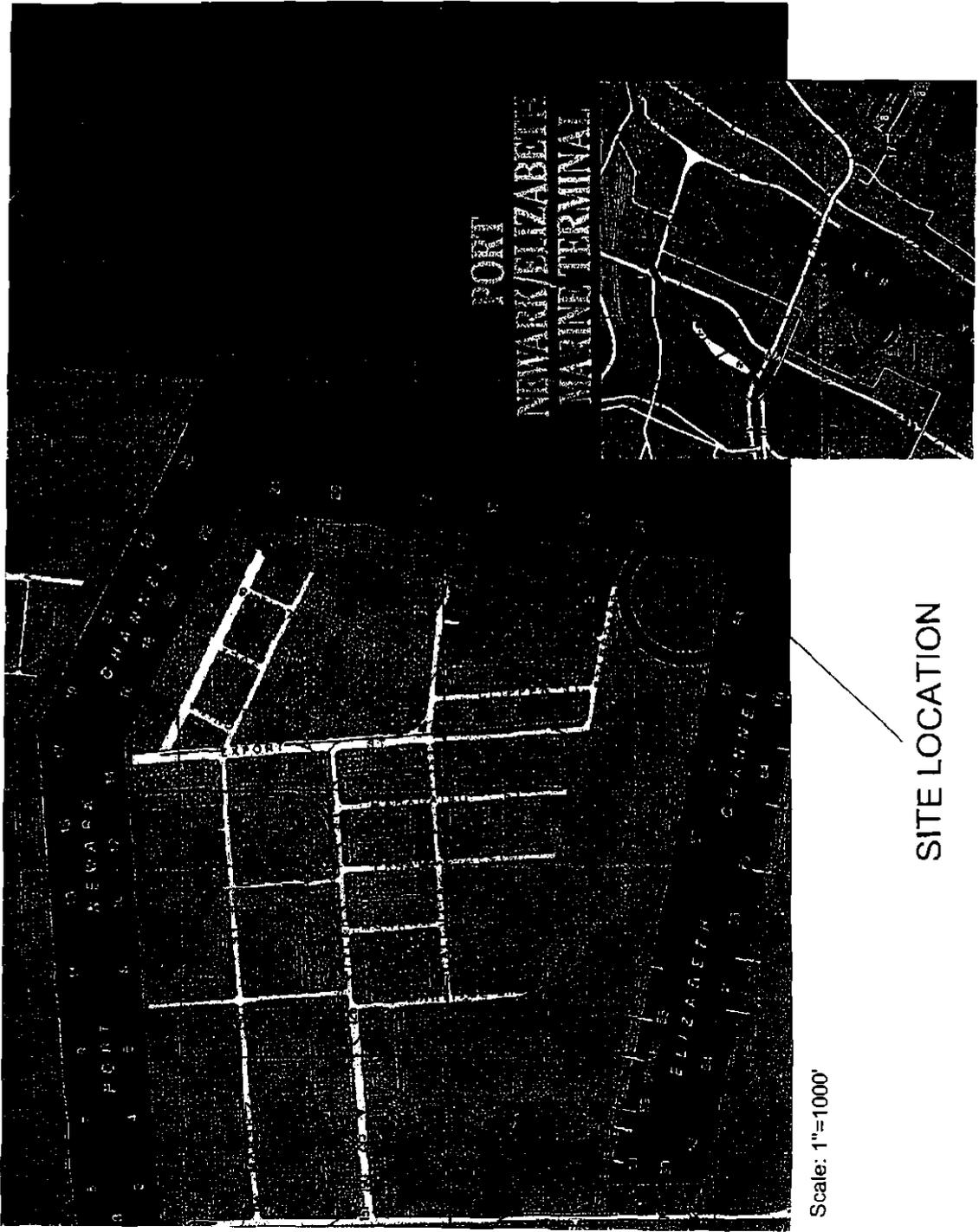
- Table 1 summarizes the results of the VOCs analyses performed on the soil samples.
- Table 2 summarizes the results of the Base Neutral and Acid Extractables (BNA) analyses performed on the soil samples.
- Table 3 summarizes the results of the polychlorinated biphenols (PCB) analyses performed on the soil samples.
- Table 4 summarizes the results of the pesticide analyses performed on the soil samples.
- Table 5 summarizes the results of the inorganic analyses performed on the soil samples.
- Table 6 summarizes the results of the total petroleum hydrocarbons (TPHC) analyses performed on the soil samples.

#### 4.2 GROUNDWATER SAMPLING RESULTS

The analytical results of the groundwater samples and associated trip blanks collected by the Port Authority personnel from the 2 on-site monitoring wells are summarized in Tables 7 – 12.

- Table 7 summarizes the VOC analysis results for the groundwater samples.
- Table 8 summarizes the results of the BNA analyses for the groundwater samples.
- Table 9 summarizes the pesticides and PCB analyses results for the groundwater samples.
- Table 10 summarizes the priority pollutant metals analysis for the groundwater samples.
- Table 11 summarizes the chloride, phenol, and cyanide results for the groundwater samples.
- Table 12 summarizes the TPHC analysis for the groundwater samples.

**APPENDIX A**  
**FIELD SCREENING NOTES/SOIL BORING LOGS/WELL CONSTRUCTION**  
**FORMS**



Scale: 1"=1000'

SITE LOCATION



**THE PORT AUTHORITY  
OF NY & NJ**

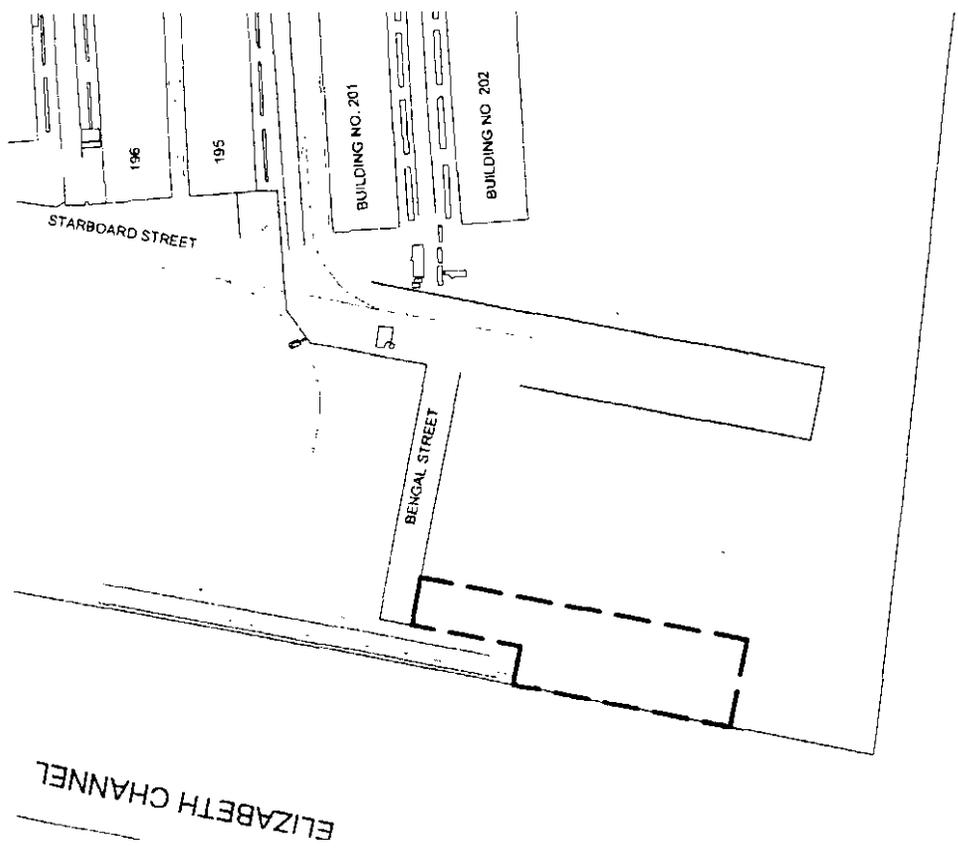
**Figure 1**

**SITE LOCATION**

Source Map: Port Authority of  
and New Jersey  
Facilities



7



**THE PORT AUTHOR  
OF NY & NJ**

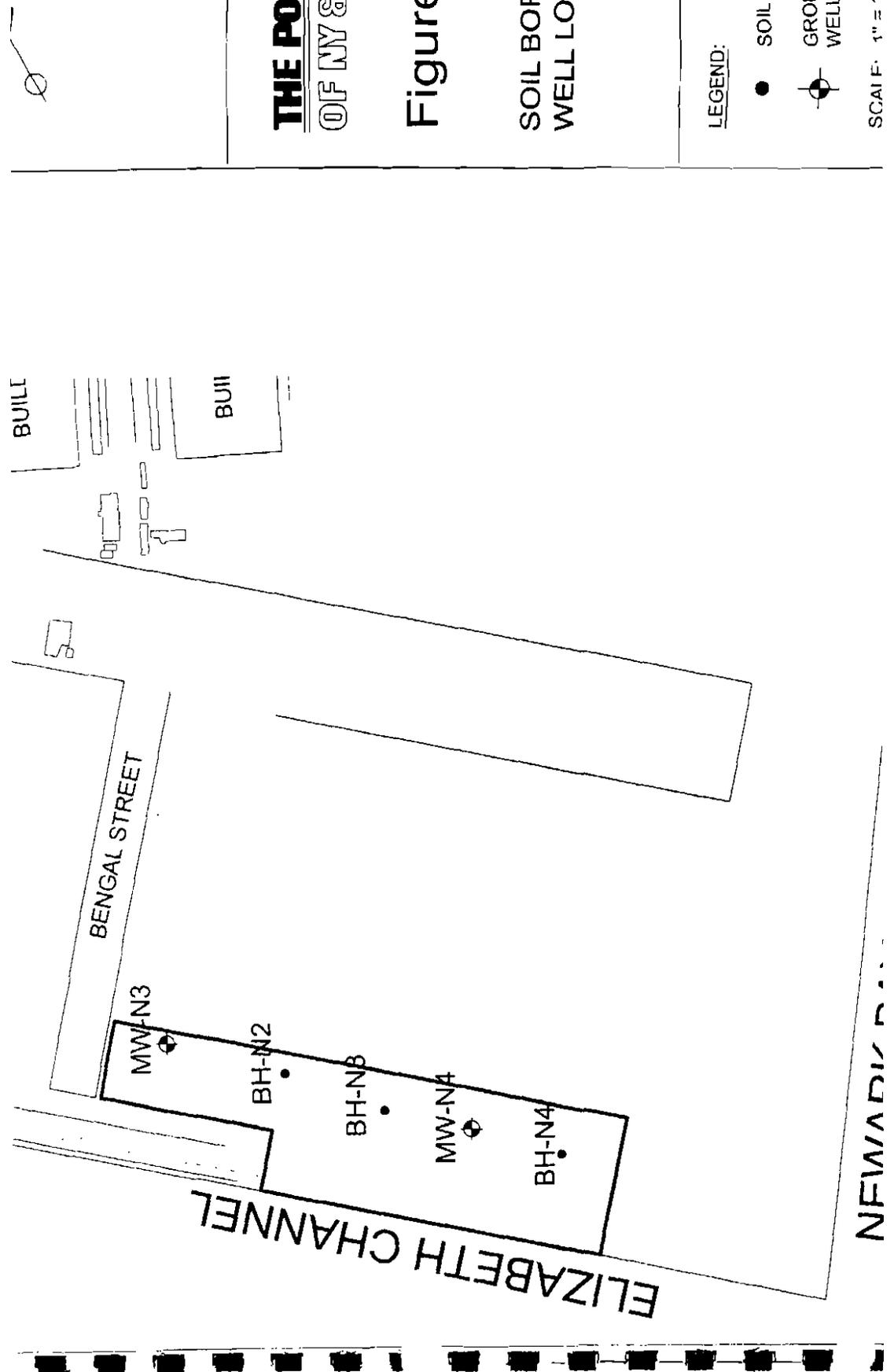
**Figure 2**

**SITE PLAN**

**LEGEND:**

— — SITE BOUNDARY

SCALE: 1" = 200'



**THE PORT**  
OF NY & NJ

**Figure 3**

SOIL BORING  
WELL LOCATI

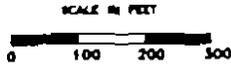
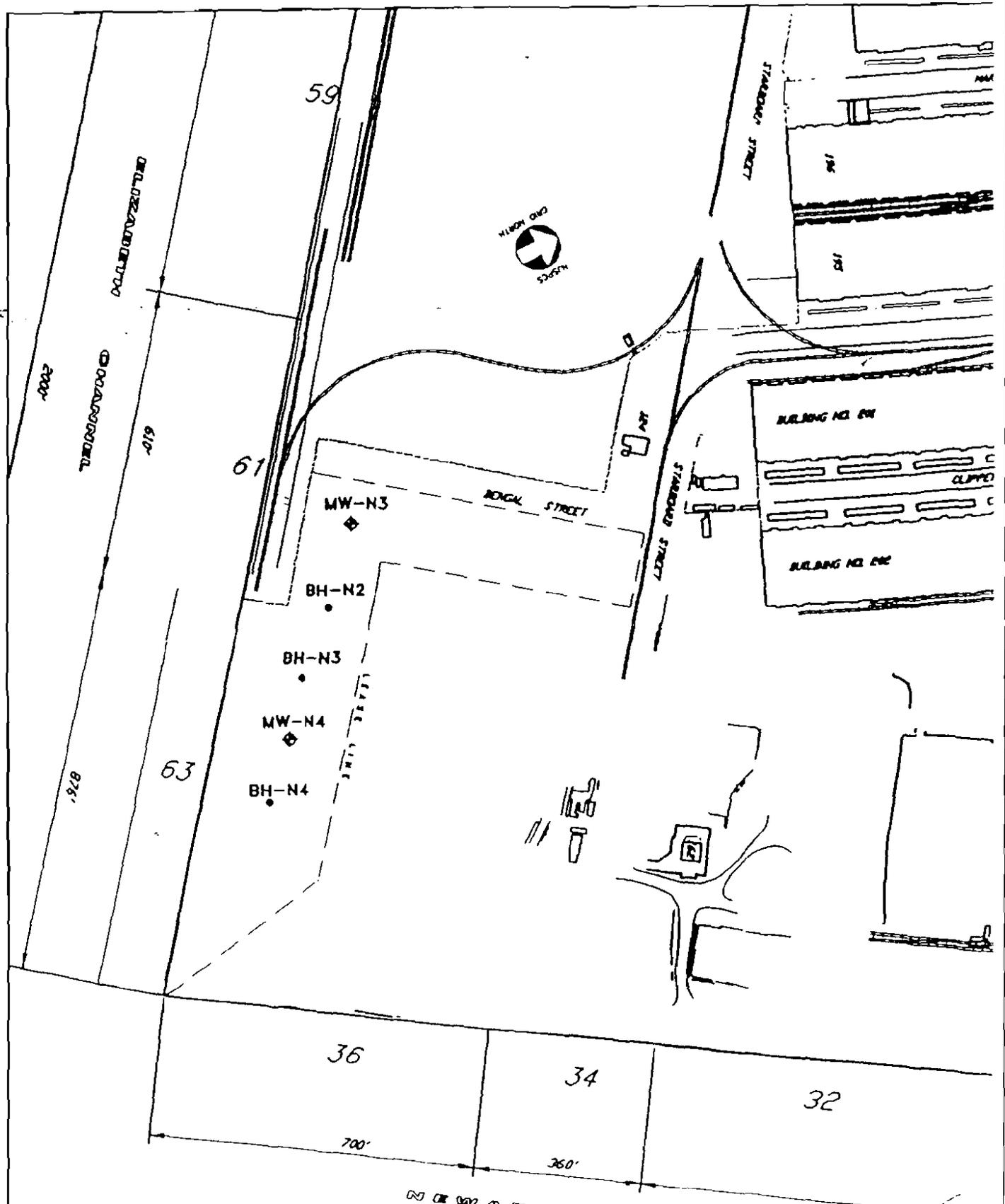
LEGEND:

● SOIL BORIN

⊕ GROUND W.  
WELL

SCALE: 1" = 100'

**APPENDIX B  
SURVEY DATA**



LEGEND	
◆	MONITORING WELL LOCATION

PORT NEWARK  
 Port Newark Container Terminal LLC  
 BORING AND MONITORING WELL  
 SAMPLE LOCATIONS

1,1,1-Trichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,1,2-Tetrachloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,1,2-Trichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,1-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,1-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,2-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,2-Dichlorobenzene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,2-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,2-Dichloropropane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,3-Dichlorobenzene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
1,4-Dichlorobenzene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
2,6-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
2-Chloroethylmethyl ether	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
2-Hexanone	2.4 U	2.6 U	2.5 U	2.6 U	2.5 U	2.3 U	2.5 U	2.2 U	2.7 U
4-Methyl-2-Pentanone	2.4 U	2.6 U	2.5 U	2.6 U	2.5 U	2.3 U	2.5 U	2.2 U	2.7 U
Acetone	2.4 U	2.6 U	2.5 U	2.6 U	2.5 U	2.3 U	2.5 U	2.2 U	2.7 U
Acetone	1.8 U	1.9 U	1.9 U	2.0 U	1.9 U	1.7 U	1.9 U	1.7 U	2.1 U
Acrylonitrile	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.1 U	1.3 U	1.1 U	1.4 U
Benzene	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.11 U	0.13 U	0.11 U	0.14 U
Bromodichloromethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Bromobrom	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Bromomethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Carbon Disulfide	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Carbon Tetrachloride	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Chlorobenzene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Chloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Chloroform	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Chloromethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
cis-1,2-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
cis-1,3-Dichloropropene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
di-Isopropyl ether	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Dibromochloromethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Ethylbenzene	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.11 U	0.13 U	0.11 U	0.14 U
M,p-Xylenes	0.24 U	0.26 U	0.22 U	0.26 U	0.25 U	0.23 U	0.26 U	0.22 U	0.3 U
Methyl-tert-butyl ether	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.11 U	0.13 U	0.11 U	0.14 U
Methylene Chloride	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
O-Xylene	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.11 U	0.13 U	0.11 U	0.14 U
Styrene	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.11 U	0.13 U	0.11 U	0.14 U
t-Butyl Alcohol	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.1 U	1.3 U	1.1 U	1.4 U
Tetrachloroethene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Toluene	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.11 U	0.13 U	0.11 U	0.14 U
trans-1,2-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
trans-1,3-Dichloropropene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Trichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Trichlorofluoromethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U
Vinyl Acetate	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.1 U	1.3 U	1.1 U	1.4 U
Vinyl Chloride	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.68 U

Notes:  
 NJDEP - New Jersey Department of Environmental Protection  
 mg/Kg - Milligrams per kilogram, equivalent to parts per million  
 U - Not detected at the PQL  
 J - Analyte detected below PQL and/or estimated concentration

**Survey Data**  
**Boring and Monitoring Well Location and Elevations**  
**Port Newark Container Terminal LLC**  
**Port Newark**  
**Newark, New Jersey**

ITEM	NORTH	EAST	ELEVATION	DESCRIPTION
BH-N2	673750.9	2144151.20	306.70	
MW-N3	673869.67	2144092.78	306.39 306.09 306.40	RIM P.V.C. G.L.
BH-N3	673661.88	2144271.70	307.70	
MW-N4	673576.87	2144372.58	307.75 307.55 307.60	RIM P.V.C. G.L.
BH-N4	673488.6	2144480.50	307.00	

**Table 2**  
**Summary of Semivolatile Organic Compounds Soil Sampling Results**  
**Port Newark Container Terminal LLC**  
**Port Newark**  
**Newark, New Jersey**

Compound	10/15/03	10/15/03	10/15/03	10/15/03	10/15/03	10/15/03	10/15/03	10/15/03	10/15/03	10/15/03	10/15/03
1,2,4-Trichlorobenzene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
1,2-Dichlorobenzene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
1,3-Dichlorobenzene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
1,4-Dichlorobenzene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2,4,5-Trichlorophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2,4,6-Trichlorophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2,4-Dichlorophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2,4-Dimethylphenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2,4-Dinitrophenol	0.35 U	0.35 U	1.1 U	0.35 U	0.34 U	0.35 U	0.69 U	0.34 U	1.8 U	0.35 U	
2,4-Dinitrotoluene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2,6-Dinitrotoluene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2-Chloronaphthalene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2-Chlorophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2-Methylnaphthalene	0.17 U	0.18 U	2.2	0.18 U	0.17 U	0.17 U	1.3	0.17 U	0.23 J	0.17 U	
2-Methylphenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2-Nitroaniline	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
2-Nitrophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
3,4-Methylphenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
3,3'-Dichlorobenzidine	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
3-Nitroaniline	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
4,6-Dinitro-2-methylphenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
4-Bromophenyl-phenylether	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
4-Chloro-3-methylphenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
4-Chloroaniline	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
4-Chlorophenyl-phenylether	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
4-Nitroaniline	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
4-Nitrophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Acenaphthene	0.17 U	0.18 U	0.58	0.18 U	0.17 U	0.17 U	0.34 J	0.17 U	1.1	0.17 U	
Acenaphthylene	0.17 U	0.18 U	0.15 J	0.18 U	0.17 U	0.17 U	0.1 J	0.17 U	0.91 U	0.17 U	
Anthracene	0.17 U	0.18 U	1	0.18 U	0.17 U	0.17 U	0.48	0.17 U	1.9	0.17 U	
Benzo(a)anthracene	0.35 U	0.35 U	1.1 U	0.35 U	0.34 U	0.35 U	0.69 U	0.34 U	1.8 U	0.35 U	
Benzo(a)pyrene	0.17 U	0.18 U	2.5	0.18 U	0.17 U	0.17 U	1.6	0.036 J	3.8	0.17 U	
Benzo(b)fluoranthene	0.17 U	0.18 U	2.5	0.18 U	0.17 U	0.17 U	1.6	0.045 J	2.9	0.17 U	
Benzo(b)fluoranthene	0.036 J	0.18 U	3.5	0.18 U	0.17 U	0.17 U	2.4	0.052 J	4.6	0.17 U	
Benzo(g,h,i)perylene	0.17 U	0.18 U	0.92	0.18 U	0.17 U	0.17 U	0.54	0.17 U	0.77 J	0.17 U	
Benzo(k)fluoranthene	0.17 U	0.18 U	1.8	0.18 U	0.17 U	0.17 U	1.1	0.17 U	1.7	0.17 U	
Benzoic Acid	0.35 U	0.35 U	1.1 U	0.35 U	0.34 U	0.35 U	0.69 U	0.34 U	1.8 U	0.35 U	
Benzyl Alcohol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Bis(2-Chloroethoxy)Methane	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Bis(2-Chloroethyl)ether	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Bis(2-Chloroisopropyl)ether	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Bis(2-Ethylhexyl)phthalate	0.39	0.093 J	8.8	0.18 U	0.27	0.11 J	3.8	0.17 J	10	0.21	
Butylbenzylphthalate	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	1.2	0.17 U	
Carbazole	0.17 U	0.18 U	0.42 J	0.18 U	0.17 U	0.17 U	0.24 J	0.17 U	0.91 U	0.17 U	
Chrysene	0.17 U	0.18 U	2.9	0.18 U	0.17 U	0.17 U	1.7	0.037 J	3.9	0.17 U	
Di-n-butylphthalate	0.043 J	0.042 J	0.8	0.18 U	0.17 U	0.17 U	0.16 J	0.044 J	0.28 J	0.17 U	
Di-n-octylphthalate	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.043 J	0.91 U	0.17 U	
Dibenz(a,h)anthracene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.23 J	0.17 U	
Dibenzofuran	0.17 U	0.18 U	0.33 J	0.18 U	0.17 U	0.17 U	0.15 J	0.17 U	0.36 J	0.17 U	
Diethylphthalate	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.081 J	0.17 U	0.91 U	0.17 U	
Dimethylphthalate	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Fluoranthene	0.046 J	0.18 U	5.7	0.18 U	0.17 U	0.17 U	3.4	0.071 J	9.5	0.056 J	
Fluorene	0.17 U	0.18 U	0.75	0.18 U	0.17 U	0.17 U	0.53	0.17 U	1.2	0.17 U	
Hexachlorobenzene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Hexachlorobutadiene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Hexachlorocyclopentadiene	0.52 U	0.53 U	1.6 U	0.53 U	0.52 U	0.52 U	1 U	0.52 U	2.7 U	0.52 U	
Hexachloroethane	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Indeno[1,2,3-cd]pyrene	0.17 U	0.18 U	1	0.18 U	0.17 U	0.17 U	0.53	0.17 U	0.79 J	0.17 U	
Isophorone	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
N-Nitroso-Di-N-Propylamine	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
N-Nitrosodimethylamine	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
N-Nitrosodiphenylamine	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Naphthalene	0.17 U	0.18 U	1.5	0.18 U	0.17 U	0.17 U	1.1	0.17 U	0.41 J	0.17 U	
Nitrobenzene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Pentachlorophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Phenanthrene	0.17 U	0.18 U	3.9	0.18 U	0.17 U	0.17 U	2	0.063 J	5.3	0.17 U	
Phenol	0.17 U	0.18 U	0.18 J	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U	
Pyrene	0.068 J	0.18 U	10	0.18 U	0.17 U	0.17 U	4.9	0.076 J	11	0.062 J	
Pyridine	0.52 U	0.53 U	1.6 U	0.53 U	0.52 U	0.52 U	1 U	0.52 U	2.7 U	0.52 U	

Notes  
 NJDEP - New Jersey Department of Environmental Protection  
 mg/Kg - Milligrams per Kilograms, equivalent to parts per million  
 U - Not detected at the PQL  
 J - Analyte detected below PQL and/or estimated concentration

**Table 3**  
**Summary of PCB Soil Sampling Results**  
**Port Newark Container Terminal LLC**  
**Port Newark**  
**Newark, New Jersey**

Client Sample ID	MW-N1	MW-N2	MW-N3	MW-N4	BH-N1	BH-N2	BH-N3	BH-N7	BH-N4	BH-N5
Sampling Depth (ft)	0.5-1.5	7.0-7.5	0.5-1.5	7.0-7.5	0.5-1.5	7.0-7.5	0.5-1.5	7.0-8.0	0.5-1.5	7.5-8
Veritech Sample ID	AA04054	AA04055	AA04060	AA04061	AA04151	AA04152	AA04153	AA04154	AA04155	AA04156
Sampling Date	03/1999	03/1999	03/1999	03/1999	025/1999	025/1999	025/1999	025/1999	025/1999	025/1999
Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Aroclor-1016	0.12	0.024	3.4	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 U	0.01
Aroclor-1221	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 U	0.01
Aroclor-1232	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 U	0.01
Aroclor-1242	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 U	0.01
Aroclor-1248	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	1.1	0.046	6.9	0.01
Aroclor-1254	0.051	0.018 U	3.4	0.018 U	0.017 U	0.017 U	0.76	0.017 U	7.6	0.01
Aroclor-1260	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 U	0.01

Notes:  
 NJDEP - New Jersey Department of Environmental Protection  
 mg/Kg - Milligrams per Kilograms, equivalent to parts per million  
 U - Not detected at the PQL  
 J - Analyte detected below PQL and/or estimated concentration

**Table 4**  
**Summary of Pesticides Soil Sampling Results**  
**Port Newark Container Terminal LLC**  
**Port Newark**  
**Newark, New Jersey**

Client Sample ID	MW-N3	MW-N3	MW-N4	MW-N4	BH-N2	BH-N2	BH-N3	BH-N3	BH-N4	BH-N4
Sampling Depth (ft)	0.5-1.5	7.0-7.8	0.5-1.5	7.0-7.8	0.5-1.5	7.0-7.8	0.5-1.5	7.0-7.8	0.5-1.5	7.0-7.8
Veritech Sample ID	AA04650	AA04650	AA04660	AA04661	AA04151	AA04152	AA04153	AA04154	AA04155	AA04156
Sampling Date	8/21/1999	8/21/1999	8/21/1999	8/21/1999	8/25/1999	8/25/1999	8/25/1999	8/25/1999	8/25/1999	8/25/1999
Units	MG/KG									
Aldrin	0.0067	0.0035 U	0.17	0.0035 U	0.0034 U	0.0035 U	0.061	0.0034 U	0.036 U	0.00
Alpha-BHC	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Beta-BHC	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.1	0.00
Chlordane	0.0069 U	0.007 U	0.072 U	0.0071 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	0.072 U	0.00
Delta-BHC	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Dieldrin	0.0035 U	0.0035 U	0.12	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Endosulfan I	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.02	0.0034 U	0.036 U	0.00
Endosulfan II	0.0035 U	0.0035 U	0.069	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.18	0.00
Endosulfan Sulfate	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Endrin	0.0035 U	0.0035 U	0.2	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Endrin Aldehyde	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Endrin Ketone	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Gamma-BHC	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0085	0.0034 U	0.049	0.00
Heptachlor	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.033	0.0034 U	0.16	0.00
Heptachlor Epoxide	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Methoxychlor	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
P,P'-DDD	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.053	0.00
P,P'-DDE	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.012	0.0034 U	0.17	0.00
P,P'-DDT	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0079	0.0034 U	0.14	0.00
Toxaphene	0.035 U	0.035 U	0.36 U	0.035 U	0.034 U	0.035 U	0.035 U	0.034 U	0.36 U	0.0

- New Jersey Department of Environmental Protection  
mg/kg - Milligrams per Kilograms, equivalent to parts per million  
U - Not detected at the PQL  
J - Analyte detected below PQL and/or estimated concentration

**Table**  
**Summary of Inorganic Compound Soil Sampling Results**  
**Port Newark Container Terminal LLC**  
**Port Newark**  
**Newark, New Jersey**

Chemical Name	LN143 05-105 AAR155 8/25/1999 MG/KG	LN144 05-115 AAR155 8/25/1999 MG/KG	LN145 05-125 AAR155 8/25/1999 MG/KG	LN146 05-135 AAR155 8/25/1999 MG/KG	LN147 05-145 AAR155 8/25/1999 MG/KG	LN148 05-155 AAR155 8/25/1999 MG/KG	LN149 05-165 AAR155 8/25/1999 MG/KG	LN150 05-175 AAR155 8/25/1999 MG/KG	LN151 05-185 AAR155 8/25/1999 MG/KG	LN152 05-195 AAR155 8/25/1999 MG/KG	LN153 05-205 AAR155 8/25/1999 MG/KG
Antimony	1.4 U										
Arsenic	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Barium	8.7	7	8.2	7.7	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Beryllium	0.19 U										
Cadmium	0.31 U	0.32 U	0.31 U								
Chromium	19	18	18	12	12	12	12	12	12	12	12
Copper	11	7.3	8	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Lead	12	7.5	6.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Mercury	0.034 U	0.034 U	0.033 U	0.034 U							
Nickel	28	18	15	14	14	14	14	14	14	14	14
Selenium	2.8 U										
Silver	1.2 U	1.3 U	1.2 U								
Thallium	1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Zinc	48	29	23	19 U							
Cyanide	0.26 U	0.26 U	0.27 U	0.26 U							
Phenol	1.3 U										
% Solids	96	95	97	96	96	96	96	96	96	96	96

Notes:  
 NJDEP - New Jersey Department of Environmental Protection  
 mg/Kg - Milligrams per Kilograms, equivalent to parts per million  
 U - Not detected at the PQL  
 J - Analyte detected below PQL and/or estimated concentration

**Table 6**  
**Summary of Total Petroleum Hydrocarbons Soil Sampling Results**  
**Port Newark Container Terminal LLC**  
**Port Newark**  
**Newark, New Jersey**

Client Sample ID	MW-10	MW-10	MW-11	MW-11	BH-12	BH-12	EP-13	EP-13	EP-14	EP-14
Sampling Depth (ft)	0.5-1.5	7.5-8.0	0.5-1.5	7.5-8.0	0.5-1.5	7.5-7.8	0.5-1.5	7.5-8.0	0.5-1.5	0.5-1.5
Vericon Sample ID	AA0455	AA0459	AA0460	AA0461	AA0410	AA0412	AA0413	AA0414	AA0415	AA0416
Sampling Date	02/1999	02/1999	02/1999	02/1999	02/1999	02/1999	02/1999	02/1999	02/1999	02/1999
Unit	MG/KG									
<b>Total Petroleum Hydrocarbons</b>	140	49	13000	36 U	150	35 U	18000	230	9500	

Notes

- NJDEP - New Jersey Department of Environmental Protection
- mg/Kg - Milligrams per Kilograms, equivalent to parts per million
- U - Not detected at the PQL
- J - Analyte detected below PQL and/or estimated concentration

**Table 7**  
**Summary of Volatile Organic Compounds Groundwater Results**  
**Port Newark Container Terminal LLC**  
**Port Newark**  
**Newark, New Jersey**

Client Sample ID: Vertech Sample ID: Sampling Date: Unit:	MW-N3 AA95333 9/21/1999 UG/L	MW-N4 AA95334 9/21/1999 UG/L	FB-1-092199 AA95336 9/21/1999 UG/L	FB-1-092199 AA95337 9/21/1999 UG/L
1,1,1-Trichloroethane	0.51 U	0.51 U	0.51 U	0.51 U
1,1,2,2-Tetrachloroethane	0.55 U	0.55 U	0.55 U	0.55 U
1,1,2-Trichloroethane	0.58 U	0.58 U	0.58 U	0.58 U
1,1-Dichloroethane	0.52 U	0.52 U	0.52 U	0.52 U
1,1-Dichloroethene	0.68 U	0.68 U	0.68 U	0.68 U
1,2-Dichlorobenzene	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethane	0.43 U	0.43 U	0.43 U	0.43 U
1,2-Dichloropropane	0.39 U	0.39 U	0.39 U	0.39 U
1,3-Dichlorobenzene	0.76 U	0.76 U	0.76 U	0.76 U
1,4-Dichlorobenzene	0.4 U	0.4 U	0.4 U	0.4 U
2-Butanone	1.4 U	1.4 U	1.4 U	1.4 U
2-Chloroethylvinylether	1 U	1 U	1 U	1 U
2-Hexanone	0.76 U	0.76 U	0.76 U	0.76 U
4-Methyl-2-Pentanone	0.78 U	0.78 U	0.78 U	0.78 U
Acetone	4.8 U	4.8 U	4.8 U	4.8 U
Acrolein	9.4 U	9.4 U	9.4 U	9.4 U
Acrylonitrile	6.9 U	6.9 U	6.9 U	6.9 U
Benzene	0.47 U	0.47 U	0.47 U	0.47 U
Bromodichloromethane	0.85 U	0.85 U	0.85 U	0.85 U
Bromoform	1.3 U	1.3 U	1.3 U	1.3 U
Bromomethane	1.2 U	1.2 U	1.2 U	1.2 U
Carbon Disulfide	0.4 U	0.4 U	0.4 U	0.4 U
Carbon Tetrachloride	0.81 U	0.81 U	0.81 U	0.81 U
Chlorobenzene	0.64 U	0.64 U	0.64 U	0.64 U
Chloroethane	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	0.47 U	0.47 U	0.47 U	0.47 U
Chloromethane	0.65 U	0.65 U	0.65 U	0.65 U
cis-1,2-Dichloroethene	0.81 U	0.81 U	0.81 U	0.81 U
cis-1,3-Dichloropropene	0.45 U	0.45 U	0.45 U	0.45 U
di-Isopropyl-ether	0.33 U	0.33 U	0.33 U	0.33 U
Dibromochloromethane	0.7 U	0.7 U	0.7 U	0.7 U
Dichlorodifluoromethane	0.67 U	0.67 U	0.67 U	0.67 U
Ethylbenzene	0.74 U	0.74 U	0.74 U	0.74 U
M&P-Xylenes	1.1 U	1.1 U	1.1 U	1.1 U
Methyl-t-butyl ether	0.43 U	0.43 U	0.43 U	0.43 U
Methylene Chloride	1.5 U	1.5 U	1.5 U	1.5 U
O-Xylene	0.69 U	0.69 U	0.69 U	0.69 U
Styrene	0.33 U	0.33 U	0.33 U	0.33 U
t-Butyl Alcohol	5.7 U	5.7 U	5.7 U	5.7 U
Tetrachloroethene	1 U	1 U	1 U	1 U
Toluene	0.45 U	0.45 U	0.45 U	0.45 U
trans-1,2-Dichloroethene	1.2 U	1.2 U	1.2 U	1.2 U
trans-1,3-Dichloropropene	0.42 U	0.42 U	0.42 U	0.42 U
Trichloroethene	0.79 U	0.79 U	0.79 U	0.79 U
Trichlorofluoromethane	0.81 U	0.81 U	0.81 U	0.81 U
Vinyl Acetate	0.32 U	0.32 U	0.32 U	0.32 U
Vinyl Chloride	1.1 U	1.1 U	1.1 U	1.1 U

**NOTES**

ug / L - Micrograms per Liter, equivalent to parts per billion

U - Not detected at the MDL

J - Analyte detected below MDL and/or estimated concentration

**Table 8**  
**Summary of Semivolatile Organics Compounds Groundwater Results**  
**Port Newark Container Terminal LLC**  
**Port Newark**  
**Newark, New Jersey**

Client Sample ID	MW-158	MW-159	MW-160
Sample Name	UG/L	UG/L	UG/L
1,2,4-Trichlorobenzene	0.43 U	0.43 U	0.43 U
1,2-Dichlorobenzene	0.34 U	0.34 U	0.34 U
1,3-Dichlorobenzene	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	0.68 U	0.68 U	0.68 U
2,4,5-Trichlorophenol	2.1 U	2.1 U	2.1 U
2,4,6-Trichlorophenol	1.5 U	1.5 U	1.5 U
2,4-Dichlorophenol	2.3 U	2.3 U	2.3 U
2,4-Dimethylphenol	2.5 U	2.5 U	2.5 U
2,4-Dinitrophenol	4 U	4 U	4 U
2,4-Dinitrotoluene	0.68 U	0.68 U	0.68 U
2,6-Dinitrotoluene	0.72 U	0.72 U	0.72 U
2-Chloronaphthalene	0.81 U	0.81 U	0.81 U
2-Chlorophenol	3.2 U	3.2 U	3.2 U
2-Methylnaphthalene	4.4 U	4.4 U	4.4 U
2-Methylphenol	3.3 U	3.3 U	3.3 U
2-Nitroaniline	2.8 U	2.8 U	2.8 U
2-Nitrophenol	2.4 U	2.4 U	2.4 U
3,4-Methylphenol	3.1 U	3.1 U	3.1 U
3,3'-Dichlorobenzidine	2.8 U	2.8 U	2.8 U
3-Nitroaniline	2.5 U	2.5 U	2.5 U
4,6-Dinitro-2-methylphenol	2.4 U	2.4 U	2.4 U
4-Bromophenyl-phenylether	0.54 U	0.54 U	0.54 U
4-Chloro-3-methylphenol	1.8 U	1.8 U	1.8 U
4-Chloroaniline	2.2 U	2.2 U	2.2 U
4-Chlorophenyl-phenylether	0.51 U	0.51 U	0.51 U
4-Nitroaniline	2.9 U	2.9 U	2.9 U
4-Nitrophenol	2.7 U	2.7 U	2.7 U
Acenaphthene	0.39 U	0.39 U	0.39 U
Acenaphthylene	0.29 U	0.29 U	0.29 U
Anthracene	0.23 U	0.23 U	0.23 U
Benidine	24 U	24 U	24 U
Benzo(a)anthracene	0.25 U	0.25 U	0.25 U
Benzo(a)pyrene	0.36 U	0.36 U	0.36 U
Benzo(b)fluoranthene	0.51 U	0.51 U	0.51 U
Benzo(g,h,i)perylene	0.27 U	0.27 U	0.27 U
Benzo(k)fluoranthene	0.58 U	0.58 U	0.58 U
Benzoic Acid	0.53 U	0.53 U	0.53 U
Benzyl Alcohol	3.8 U	3.8 U	3.8 U
Bis(2-Chloroethoxy)Methane	0.4 U	0.4 U	0.4 U
Bis(2-Chloroethyl)ether	0.56 U	0.56 U	0.56 U
Bis(2-Chloroisopropyl)ether	1.6 U	1.6 U	1.6 U
Bis(2-Ethylhexyl)phthalate	1.2 U	0.76 U	0.76 U
Butylbenzylphthalate	0.49 U	0.49 U	0.49 U
Carbazole	0.29 U	0.29 U	0.29 U
Chrysene	0.27 U	0.27 U	0.27 U
Di-n-butylphthalate	0.78 U	0.78 U	0.78 U
Di-n-octylphthalate	0.53 U	0.53 U	0.53 U
Dibenzo(a,h)anthracene	0.2 U	0.2 U	0.2 U
Dibenzofuran	2.5 U	2.5 U	2.5 U
Diethylphthalate	1.7 U	1.7 U	1.7 U
Dimethylphthalate	0.23 U	0.23 U	0.23 U
Fluoranthene	0.26 U	0.26 U	0.26 U
Fluorene	0.26 U	0.26 U	0.26 U
Hexachlorobenzene	0.41 U	0.41 U	0.41 U
Hexachlorobutadiene	0.91 U	0.91 U	0.91 U
Hexachlorocyclopentadiene	1.1 U	1.1 U	1.1 U
Hexachloroethane	1.1 U	1.1 U	1.1 U
Indeno(1,2,3-cd)pyrene	0.29 U	0.29 U	0.29 U
Isophorone	0.47 U	0.47 U	0.47 U
N-Nitroso-Di-N-Propylamine	0.94 U	0.94 U	0.94 U
N-Nitrosodimethylamine	1.3 U	1.3 U	1.3 U
N-Nitrosodiphenylamine	0.64 U	0.64 U	0.64 U
Naphthalene	0.44 U	0.44 U	0.44 U
Nitrobenzene	0.92 U	0.92 U	0.92 U
Pentachlorophenol	5.7 U	5.7 U	5.7 U
Phenanthrene	0.35 U	0.35 U	0.35 U
Phenol	1.3 U	1.3 U	1.3 U
Pyrene	0.38 U	0.38 U	0.38 U
Pyridine	4.9 U	4.9 U	4.9 U

NOTES  
 ug / L - Micrograms per Liter, equivalent to parts per billion  
 U - Not detected at the MDL  
 J - Analyte detected below MDL and/or estimated concentration

Sample 9  
 Summary of Pesticides and Groundwater Sampling Results  
 Port Newark Container Terminal LLC  
 Port Newark  
 Newark, New Jersey

Client Sample ID	Sample Name	Sample Date	Sample Volume (L)	Sample Depth (ft)	Sample Type	Sample Location	Sample ID
Aroclor-1016			0.5 U		0.5 U		0.5 U
Aroclor-1221			0.5 U		0.5 U		0.5 U
Aroclor-1232			0.5 U		0.5 U		0.5 U
Aroclor-1242			0.5 U		0.5 U		0.5 U
Aroclor-1248			0.5 U		0.5 U		0.5 U
Aroclor-1254			0.5 U		0.5 U		0.5 U
Aroclor-1260			0.5 U		0.5 U		0.5 U
<b>Pesticides</b>							
Aldrin			0.1 U		0.1 U		0.1 U
Alpha-BHC			0.1 U		0.1 U		0.1 U
Beta-BHC			0.1 U		0.1 U		0.1 U
Chlordane			0.2 U		0.2 U		0.2 U
Delta-BHC			0.1 U		0.1 U		0.1 U
Dieldrin			0.1 U		0.1 U		0.1 U
Endosulfan I			0.1 U		0.1 U		0.1 U
Endosulfan II			0.1 U		0.1 U		0.1 U
Endosulfan Sulfate			0.1 U		0.1 U		0.1 U
Endrin			0.1 U		0.1 U		0.1 U
Endrin Aldehyde			0.1 U		0.1 U		0.1 U
Endrin Ketone			0.1 U		0.1 U		0.1 U
Gamma-BHC			0.1 U		0.1 U		0.1 U
Heptachlor			0.1 U		0.1 U		0.1 U
Heptachlor Epoxide			0.1 U		0.1 U		0.1 U
Methoxychlor			0.1 U		0.1 U		0.1 U
P,P'-DDD			0.1 U		0.1 U		0.1 U
P,P'-DDE			0.1 U		0.1 U		0.1 U
P,P'-DDT			0.1 U		0.1 U		0.1 U
Toxaphene			1 U		1 U		1 U

NOTES:  
 ug / L - Micrograms per Liter, equivalent to parts per billion  
 U - Not detected at the MDL  
 J - Analyte detected below MDL and/or estimated concentration

# Summary of the Priority Pollutant Metals Analysis For Groundwater Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

Client Sample ID Method Sample ID Sampling Date Filter	AWP# AWP# AWP#	MDL# MDL# MDL#	FB# FB# FB#
Antimony	1.5 U	1.5 U	1.5 U
Arsenic	3.7 U	3.7 U	3.7 U
Barium	86	83	4.5 U
Beryllium	0.86 U	0.86 U	0.86 U
Cadmium	1.2 U	1.2 U	1.2 U
Chromium	10 U	10 U	10 U
Copper	2.7 U	14	5.7
Lead	3.1 U	5	3.1 U
Mercury	0.19 U	0.19 U	0.19 U
Nickel	27	13	12 U
Selenium	3.7 U	3.7 U	3.7 U
Silver	0.78 U	0.78 U	0.78 U
Thallium	3.6 U	3.6 U	3.6 U
Zinc	38 U	38 U	38 U
Total Suspended Solids	20000	11000	4000 U

NOTES

- ug / L - Micrograms per Liter, equivalent to parts per billion
- U - Not detected at the MDL
- J - Analyte detected below MDL and/or estimated concentration

**Summary of the Chloride, Phenol, and Cyanide Groundwater Sampling Results  
 Port Newark Container Terminal LLC  
 Port Newark  
 Newark, New Jersey**

Client Sample ID	Client Name	Client Address	Client Phone	Client Email
Vertisam01010	74995551	74995551	973/717939	U@U
Sampling Date	10 U	50 U	10 U	50 U
Cyanide	520000	5400000	1000 U	1000 U
Phenol				
Chloride				

**NOTES:**

- ug / L - Micrograms per Liter, equivalent to parts per billion
- U - Not detected at the MDL
- J - Analyte detected below MDL and/or estimated concentration

Summary of Total Petroleum Hydrocarbons Groundwater Sampling Results  
 Port Newark Container Terminal LLC  
 Port Newark  
 Newark, New Jersey

Client Sample ID:	MW-02	MW-02	FB-1-092199
Veritech Sample ID:	A05533	A05534	A05535
Sampling Date:	8/21/1999	8/21/1999	8/21/1999
Units:	ug/L	ug/L	ug/L
Total Petroleum Hydrocarbons	1000 U	1100 U	1000 U

NOTES:  
 ug / L - Micrograms per Liter, equivalent to parts per billion  
 U - Not detected at the MDL  
 J - Analyte detected below MDL and/or estimated concentration

ACKNOWLEDGEMENT

FOR THE PORT AUTHORITY

STATE OF NEW YORK )  
 )ss.  
COUNTY OF NEW YORK )

On the \_\_\_\_\_ day of \_\_\_\_\_ in the year 2003, before me, the undersigned, a Notary Public in and for said state, personally appeared \_\_\_\_\_, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

\_\_\_\_\_  
(notarial seal and stamp)

FOR THE LESSEE

STATE OF *NEW JERSEY* )  
 )ss.  
COUNTY OF *ESSEX* )

On the *1<sup>ST</sup>* day of *OCTOBER* in the year *200<sup>4</sup>*, before me, the undersigned, a Notary Public in and for said state, personally appeared *DONALD P. HAMM*, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

*Andrea Goc*  
\_\_\_\_\_  
(notarial seal and stamp)

**ANDREA GOC**  
**NOTARY PUBLIC OF NEW JERSEY**  
Commission Expires 2/27/07

ACKNOWLEDGEMENT

FOR THE PORT AUTHORITY

STATE OF NEW YORK )  
 )ss.  
COUNTY OF NEW YORK )

On the 5<sup>th</sup> day of October in the year 200<sup>4</sup>, before me, the undersigned, a Notary Public in and for said state, personally appeared RICHARD M. LARRABEE, personally known to me or proved to me on the basis of satisfactory evidence to be the DIRECTOR, PORT COMMERCE DEPT. individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

*Marie M. Edwards*  
(notarial seal and stamp)

FOR THE LESSEE

Marie M. Edwards  
Notary Public, State of New York  
No. 01ED4959693  
Qualified in Kings County  
Commission Expires Jan. 6, 2006

STATE OF New Jersey )  
 )ss.  
COUNTY OF Middlesex )

On the 4<sup>th</sup> day of October in the year 200<sup>4</sup>, before me, the undersigned, a Notary Public in and for said state, personally appeared GARY WILLMOT, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

*Antonina M. Cronin*  
ANTONINA M. CRONIN (notarial seal and stamp)  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires May 7, 2007  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires May 7, 2007

**UNANIMOUS WRITTEN CONSENT  
OF MANAGERS OF  
PORT NEWARK CONTAINER TERMINAL L.L.C.**

The undersigned, being all of the managers of Port Newark Container Terminal L.L.C., a Delaware limited liability company (the "Company"), acting in lieu of a meeting pursuant to Article 9.8 of that certain Limited Liability Agreement dated as of August 1, 2000, as amended, by and among P&O Ports North America Inc., P&O Nedlloyd B.V., and the Company, hereby consent to the adoption of the following resolutions and actions set forth herein as of the date and year set forth below:

WHEREAS, there has been presented to the managers for their consideration a substantially final draft of a certain supplement no. 4 (the "Lease Supplement") to the Lease Agreement dated December 1, 2000 (No. L-PN-264) (the "Lease") between the Port Authority of New York and New Jersey (the "Port Authority") and the Company, relating to the addition of a three-acre area to the Lease (the "Added Space"), as such Added Space is more fully depicted on Exhibit A, Sheet 4 of the Lease.

NOW, THEREFORE, it is

RESOLVED, that the form, terms and provisions of the Lease Supplement be, and hereby are, authorized, adopted and approved, in such form and containing such terms and conditions, with such changes, additions, deletions, amendments or modifications, as the manager executing the same deems necessary, proper or advisable; and it is further

RESOLVED, that all actions taken by the managers of the Company prior to the date of this Unanimous Written Consent which are within the authority conferred hereby are ratified and approved; and it is further

RESOLVED, that the managers and officers of the Company be, and they hereby are, authorized and directed to take such action and execute and deliver on behalf of the Company such documents and/or instruments as may be necessary to accomplish the intent of the resolutions herein; and it is further

RESOLVED, that the managers and officers of the Company be, and each of them acting alone hereby is, authorized, empowered and directed to execute, deliver and cause the performance of the Lease Supplement, in the name and on behalf of the Company, with such changes therein, deletions therefrom or additions thereto as the manager or officer executing the same shall approve, the execution and delivery thereof to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers; and it is further

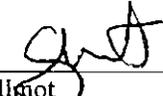
RESOLVED, that the managers and officers of the Company be, and each of them acting alone hereby is, authorized and empowered to take, from time to time in the name and on behalf of the Company, such actions and execute and deliver such certificates, instruments, notices and documents, including amendments thereto, as may be required from time to time or as such manager or officer may deem necessary, advisable or proper in order to carry out and perform the obligations of the Company under the Lease Supplement, or any other instrument or documents executed pursuant to or in connection with the Lease Supplement; all such certificates, instruments, notices and documents to be executed and delivered in such form

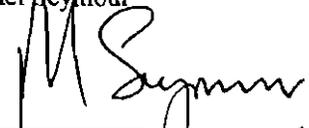
*Handwritten signatures and initials:*  
MS @ JM  
TSB LC

as the manager executing the same shall approve, the execution and delivery thereof by such manager to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers of the Company.

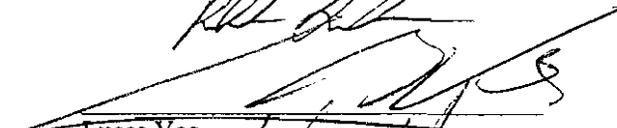
The actions taken by the execution of this Unanimous Written Consent shall have the same force and effect as if taken at a meeting of the Board of Managers of the Company duly called and constituted in accordance with the laws of the State of Delaware.

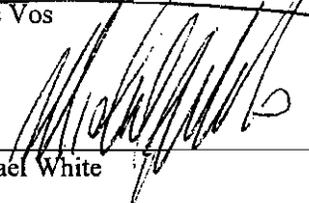
IN WITNESS WHEREOF, the undersigned have executed this Unanimous Written Consent as of this \_\_\_\_ day of November, 2003.

  
\_\_\_\_\_  
Gary Willmot

\_\_\_\_\_  
Michael Seymour  


\_\_\_\_\_  
Robert Agresti  


  
\_\_\_\_\_  
Lucas Vos

  
\_\_\_\_\_  
Michael White

  
\_\_\_\_\_  
Tom Boardley

**UNANIMOUS WRITTEN CONSENT  
OF MANAGERS OF  
PORT NEWARK CONTAINER TERMINAL L.L.C.**

The undersigned, being all of the managers of Port Newark Container Terminal L.L.C., a Delaware limited liability company (the "Company"), acting in lieu of a meeting pursuant to Article 9.8 of that certain Limited Liability Agreement dated as of August 1, 2000, as amended, by and among P&O Ports North America Inc., P&O Nedlloyd B.V., and the Company, hereby consent to the adoption of the following resolutions and actions set forth herein as of the date and year set forth below:

WHEREAS, there has been presented to the managers for their consideration a substantially final draft of a certain supplement no. 4 (the "Lease Supplement") to the Lease Agreement dated December 1, 2000 (No. L-PN-264) (the "Lease") between the Port Authority of New York and New Jersey (the "Port Authority") and the Company, relating to the addition of a three-acre area to the Lease (the "Added Space"), as such Added Space is more fully depicted on Exhibit A, Sheet 4 of the Lease.

NOW, THEREFORE, it is

RESOLVED, that the form, terms and provisions of the Lease Supplement be, and hereby are, authorized, adopted and approved, in such form and containing such terms and conditions, with such changes, additions, deletions, amendments or modifications, as the manager executing the same deems necessary, proper or advisable; and it is further

RESOLVED, that all actions taken by the managers of the Company prior to the date of this Unanimous Written Consent which are within the authority conferred hereby are ratified and approved; and it is further

RESOLVED, that the managers and officers of the Company be, and they hereby are, authorized and directed to take such action and execute and deliver on behalf of the Company such documents and/or instruments as may be necessary to accomplish the intent of the resolutions herein; and it is further

RESOLVED, that the managers and officers of the Company be, and each of them acting alone hereby is, authorized, empowered and directed to execute, deliver and cause the performance of the Lease Supplement, in the name and on behalf of the Company, with such changes therein, deletions therefrom or additions thereto as the manager or officer executing the same shall approve, the execution and delivery thereof to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers; and it is further

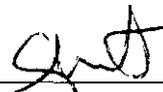
RESOLVED, that the managers and officers of the Company be, and each of them acting alone hereby is, authorized and empowered to take, from time to time in the name and on behalf of the Company, such actions and execute and deliver such certificates, instruments, notices and documents, including amendments thereto, as may be required from time to time or as such manager or officer may deem necessary, advisable or proper in order to carry out and perform the obligations of the Company under the Lease Supplement, or any other instrument or documents executed pursuant to or in connection with the Lease Supplement; all such certificates, instruments, notices and documents to be executed and delivered in such form

*MS @ JW*

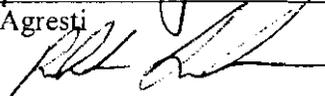
as the manager executing the same shall approve, the execution and delivery thereof by such manager to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers of the Company.

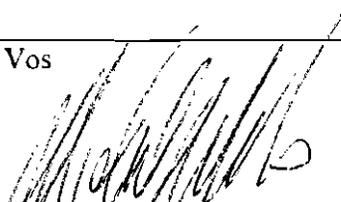
The actions taken by the execution of this Unanimous Written Consent shall have the same force and effect as if taken at a meeting of the Board of Managers of the Company duly called and constituted in accordance with the laws of the State of Delaware.

IN WITNESS WHEREOF, the undersigned have executed this Unanimous Written Consent as of this \_\_\_\_ day of November, 2003.

  
\_\_\_\_\_  
Gary Willmot

Michael Seymour  
  
\_\_\_\_\_

Robert Agresti  
  
\_\_\_\_\_

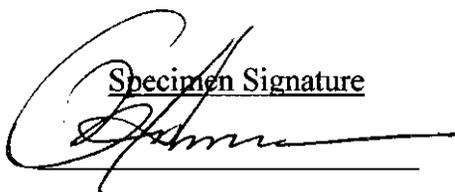
Lucas Vos  
  
\_\_\_\_\_

Michael White  
  
\_\_\_\_\_

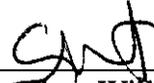
PORT NEWARK CONTAINER TERMINAL, L.L.C.

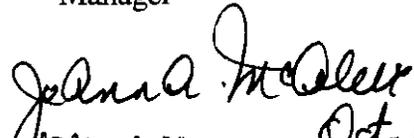
CERTIFICATE OF MANAGER

For purposes of reliance by The Port Authority of New York & New Jersey (the "Port Authority") in connection with supplement nos. 4 and 5 (collectively, the "Lease Supplements") to the Lease Agreement dated December 1, 2000 (No. L-PN-264) between the Port Authority and Port Newark Container Terminal, L.L.C., a Delaware limited liability company (the "Company"), the undersigned hereby certifies that he is a manager of the Company, and further certifies that Don Hamm, whose specimen signature appears below, is the duly appointed President of the Company and that he is authorized to execute and deliver each of the Lease Supplements on behalf of the Company.

<u>Name</u>	<u>Title</u>	<u>Specimen Signature</u>
Don Hamm	President	

IN WITNESS WHEREOF, the undersigned has executed this Certificate as of this 29th day of September, 2004.

  
\_\_\_\_\_  
Gary Willmot  
Manager

  
JoAnn A. McAleer  
NOTARY PUBLIC OF NEW JERSEY  
Commission Expires 10/16/2007  
Oct. 1, 2004

# THE PORT AUTHORITY OF NY & NJ

Engineering Department  
Construction Division  
Materials Engineering Section

## BORING REPORT

SHEET 1 OF 3

PROJECT PN NAPORANO SITE - BERTH 63	NAME OF CONTRACTOR CRAIG	BORING NO. BH N2	SURFACE ELEV.
LOCATION Laid out in THE FIELD AS PER DRAWING	CONTRACT NO. 426-99-007	DATE 8/25/99	

SPOON 3" O.D. 2 3/8" I.D. H.S. Aug HAMMER (Safety) 140# FALL 30"	CASING SIZE H.S. Aug HAMMER # FALL	HOLE TYPE # FALL	GROUND WATER LEVEL Date Time Depth Remarks 8/25 AM 79' found in S# 4	
DRILLER Burns				
INSPECTOR M. Oudeh				

CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE-COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0				CRUSHED ROCK
		HAND AUGER	full	1	fill br m.f sand, fr. gravel, fr. silt
				2	same
	5			3	fill br c.f sand fr. gravel, fr silt
				4	same
		15-15	21"	5	same
	10	13-15			
		5-8	22"	6	same
		11-9			
					Bottom of Boring ↑ 120
	15				NOTE: All samples were screened for VOC's with a PID. S# 1 (10.5'-15') and S# 4 (2'-7') were saved and the remaining were discarded.
	20				
	25				

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used  
 2 - U = undisturbed; A = auger, OER = open end rod, V = vane  
 3 - Log depth of change in color of wash water, loss of...



# THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT  
MATERIALS ENGINEERING DIVISION  
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN NAPORANO SITE BERTH 63	
LOCATION: laid out in the field as per Drawing	DATE: 8/25/99
BORING No: <del>BH</del> BH N2	TOTAL No OF SAMPLES: 2

SIGNATURE OF ALL PRESENT AT SAMPLING

*[Signature]*

RELINQUISHED BY (SIGN)	<i>[Signature]</i>	DATE	8/25/99	RECEIVED BY (SIGN)	
RELINQUISHED BY (SIGN)		DATE		RECEIVED BY (SIGN)	
RELINQUISHED BY (SIGN)		DATE		RECEIVED BY (SIGN)	

REMARKS: 2 Samples taken in 2 one pt. JARS & 2 UOA's  
and JAR # E148 0.5' - 1.5'  
JAR # E151 7' - 7.5'

# THE PORT AUTHORITY OF NY & NJ

Engineering Department  
Construction Division  
Materials Engineering Section

## BORING REPORT

SHEET 1 OF 3

PROJECT PA NAPOCANO SITE - BERTH 63		NAME OF CONTRACTOR CRAIG		BORING NO. BH-N3		SURFACE ELEV.	
LOCATION Laid out in the field as per drawing				CONTRACT NO. 426.99.007		DATE 8/25/99	
SPOON 3" O.D. 2 3/8" I.D. HAMMER (solid) 140 # FALL 30 #		CASING SIZE H.S. Aug HAMMER # FALL		HOLE TYPE		GROUND WATER LEVEL	
DRILLER S. BURNS				INSPECTOR M. OUDEH		Date	
						Time	
						Depth	
						Remarks	
						8/25 12:07 PM 8.4' found in S#5	

CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE-COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
Hand Auger	0	Hand Auger	Full	1	Asphalt Pavement 0.5'
				2 A	Mix. f. ll crushed rock, sand, silt, gravel
				2 B	SAME
					fill br mat sand, to gravel, to silt
	5			3	same
				4	fill br cut sand, to gravel, fr. silt
H.S. Auger		16-17	21"		same
	10	16-7		5	same
		10-11	22"		same
		15-15		6	
					Bottom of Boring 12.0'
	15				
	20				
	25				

NOTE: All samples were screened for rocks with a #10 sieve. S#1 (0.5'-1.5') and S#4 (7.5'-8.0') were saved and the remaining were discarded.

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used  
2 - U = undisturbed; A = auger; OER = open end rod; V = vane  
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc



# THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT  
MATERIALS ENGINEERING DIVISION  
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: <i>PN Naperano Site Benth 63</i>	
LOCATION: <i>Laid out in the field as per drawing</i>	DATE: <i>8/25/99</i>
BORING No: <i>BH-N3</i>	TOTAL No OF SAMPLES: <i>2</i>

SIGNATURE OF ALL PRESENT AT SAMPLING *[Signature]*

RELINQUISHED <i>[Signature]</i>	DATE <i>8/25/99</i>	RECEIVED
BY (SIGN)	TIME	BY (SIGN)

RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY (SIGN)

RELINQUISHED	DATE	RECEIVED
(SIGN)	TIME	BY LAB

REMARKS: *2 Samples taken in 2 one pt. JARS, 2 WATS and the following:*

JAR # *E150* *0.5'-1.5'*

JAR # *E149* *7.5'-8'*

# THE PORT AUTHORITY OF NY & NJ

Engineering Department  
Construction Division  
Materials Engineering Section

## BORING REPORT

SHEET 1 OF 3  
SURFACE ELEV.

PROJECT RN NAPORANO SITE - BERTH 63	NAME OF CONTRACTOR CRAIG DRILLING	BORING NO. BH-N4	DATE 8/25/99
LOCATION Laid out in the field as per drawing	CONTRACT NO. 426-99-007	SURFACE ELEV.	

SPOON 3" O.D. - 2 3/4" I.D.	CASING SIZE H.S. PUNG.	HOLE TYPE	GROUND WATER LEVEL			
HAMMER (Safety) 140 # FALL 30"	HAMMER	# FALL	Date 8/25	Time PM	Depth 8.6'	Remarks Found in S#5-
DRILLER S. BURNS	INSPECTOR M. Oudett					

CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- <sup>1</sup> COV'D	SAMP. <sup>2</sup> NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
Hand Auger	0	Hand Auger	Full	1	Asphalt Pavement Misc. fill Sand, brick, wood, METAL, ETC
				2 <sup>A</sup>	Same
				3 <sup>B</sup>	fill br. c-f Sand, tr gravel to silt
	5			4	Same
				5	Same
H.S. Auger		10-10	20"	6	Same
	10	10-10		7	Same
		8-13	12"	10	Same
					NOTE: Spoon is bouncing Bottom at ±10.4' of boring
	15				All samples were screened for rocks with a P.D. S#1 (12.5'-15') AND S#4 (7.5'-8') were saved AND THE REMAININGS WERE DISCARDED
	20				
	25				

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used  
2 - U = undisturbed; A = auger, OER = open end rod, V = vane  
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc



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ENGINEERING DEPARTMENT  
MATERIALS ENGINEERING DIVISION  
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: <i>PN - NAPORANO SITE - BERTH 63</i>	
LOCATION: <i>Laid out in the field as per drawing</i>	DATE: <i>8/25/99</i>
BORING No: <i>BH-N4</i>	TOTAL No. OF SAMPLES: <i>2</i>

SIGNATURE OF ALL  
PRESENT AT SAMPLING *[Signature]*

RELINQUISHED <i>[Signature]</i>	DATE <i>8/25/99</i>	RECEIVED
BY (SIGN)	TIME	BY (SIGN)
RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY (SIGN)
RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY LAB

REMARKS *2 Samples taken in 2 one ft. JAR, 2 UOAS*  
*and the following JAR # E153 0.5' - 1.5'*  
*JAR # E154 7.5' - 8'*

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Engineering Department  
Construction Division  
Materials Engineering Section

## BORING REPORT

SHEET 1 OF 1

PROJECT PN - Naparawa Site, BIRTH 63		NAME OF CONTRACTOR Craig Drilling		BORING NO. MU-N3	SURFACE ELEV.
LOCATION Disked out in field as per Drawing				CONTRACT NO. 42699-006	DATE 9/3/79
SPOON 3	*O.D. 2 3/8	*I.D. 2 1/8	CASING SIZE Dugies	HOLE TYPE D'non Tor	
HAMMER 140 # FALL 30		HAMMER # FALL		GROUND WATER LEVEL	
DRILLER D Osuch		INSPECTOR D Nowe		Date 9/3	Time 11:00
				Depth 8.0	Remarks Top 5'

CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE-COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
Hand	0	Hand	Full	1	Misc fill silt, gravel, wood, metal, asphalt etc
Auger		Auger		1	Fill - C-F Brown Sand, Tr Gravel, Tr Silt
				2	Same
	5			3	Same
Yellow		11-12		4	3' Lens of F-Grey Sand, some silt with 6.8'
Stems		20-30	18"		Same
Dugies		25-25		5	
	10	28-30	20"		Fill - M-F Brown Sand, Tr Silt, Tr Gravel
		5-8		6	
		8-9	18"		Fill - M-F DK Grey Sand, Tr Silt, Tr Gravel
		6-7		7	
		9-11	19"		Same
	15	3-7		8	
		9-11	18"		Fill - F Brown Grey Sand, Tr Silt, Tr Gravel
					Bottom of Boring
	20				All samples checked with PID Meter, s# 1 15-20' & s# 4 7-8' Sand Porting, Remaining samples discarded
	25				

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used  
2 - U = undisturbed, A = auger, OER = open end rod, V = vane  
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc

**PORT AUTHORITY OF NY & NJ**  
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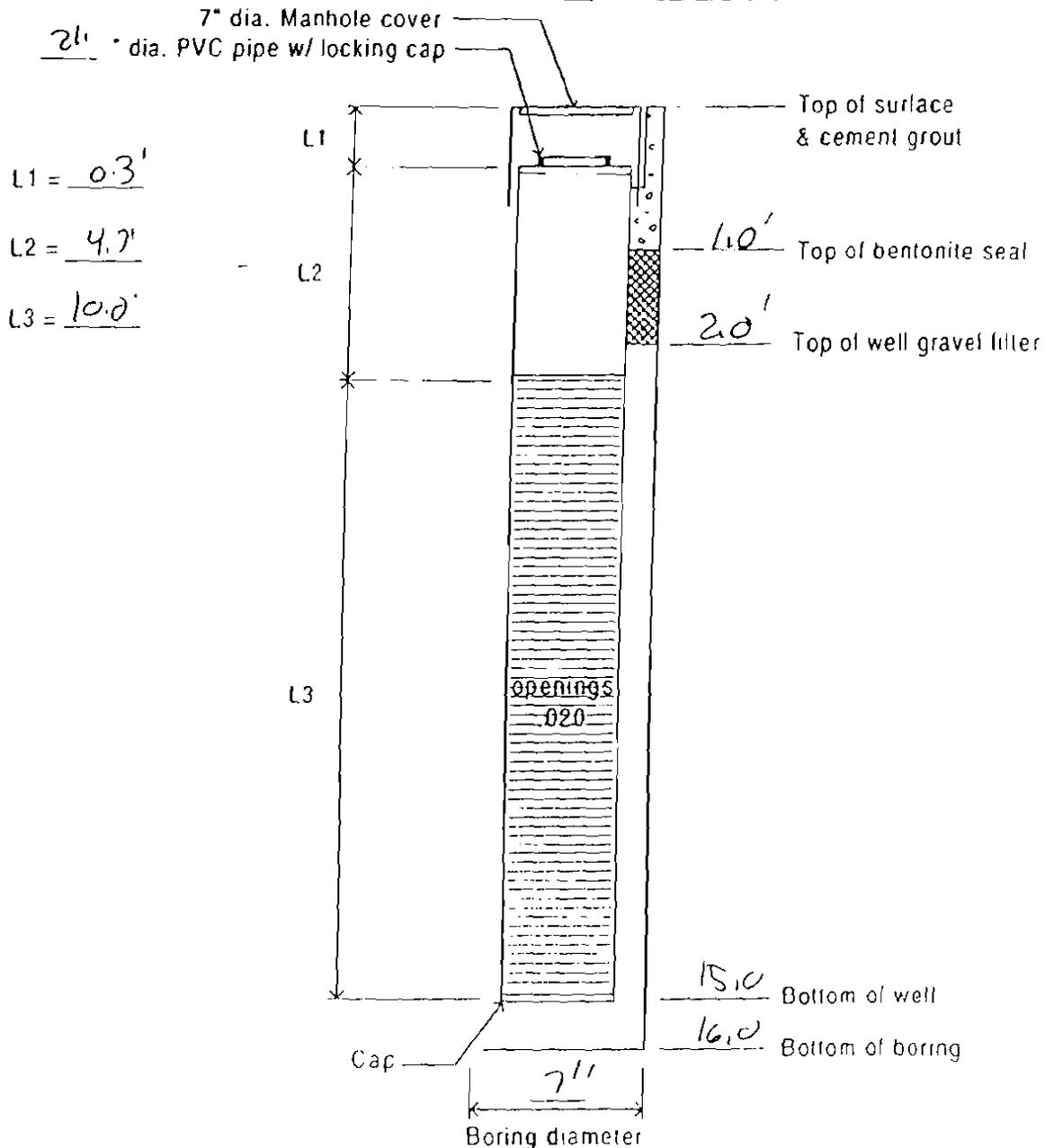
**Well Installation Report**

Sheet 2 of 4

PROJECT PN - Nysparawac Site, Box 63				CONTRACT NO 426-99-006	
LOCATION Bylard out in field approx Drawing				CONTRACTOR Crane	
WELL NO MW-N3	WELL TYPE A Monitor	INSPECTOR Ostrowe	DRILLER Dusich	DATE 9/7/99	

**Well Development Report** (NOTE WATER LEVEL READINGS FROM TOP OF PVC)

DATE 9/7/99	WATER LEVEL BEFORE 6.8'	WATER LEVEL AFTER 8.1'	TAKEN 15	MINUTES AFTER
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REMARKS  
 Hole back filled 15'-16' with well Gravel

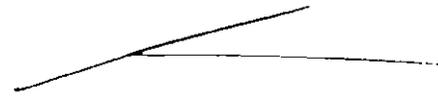


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ENGINEERING DEPARTMENT  
MATERIALS ENGINEERING DIVISION  
CHAIN OF CUSTODY RECORD

Sheet 4 of 9

PROJECT: PN - Nyponaw Site Boring 63	
LOCATION: Island out in field	DATE: 9/3/99
BORING No: MW-N3	TOTAL No. OF SAMPLES: 2

SIGNATURE OF ALL PRESENT AT SAMPLING 

RELINQUISHED 	DATE 9/3/99	RECEIVED
BY (SIGN)	TIME 1:30 PM	BY (SIGN)

RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY (SIGN)

RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY LAB

REMARKS:  
2 Soil Sample 5<sup>th</sup> / 25<sup>th</sup> 4 each in 16oz jar & 1 in 1/2 liter Soil Boi



**PORT AUTHORITY OF NY & NJ**  
**Engineering Department - Materials Division**

**Well Installation Report**

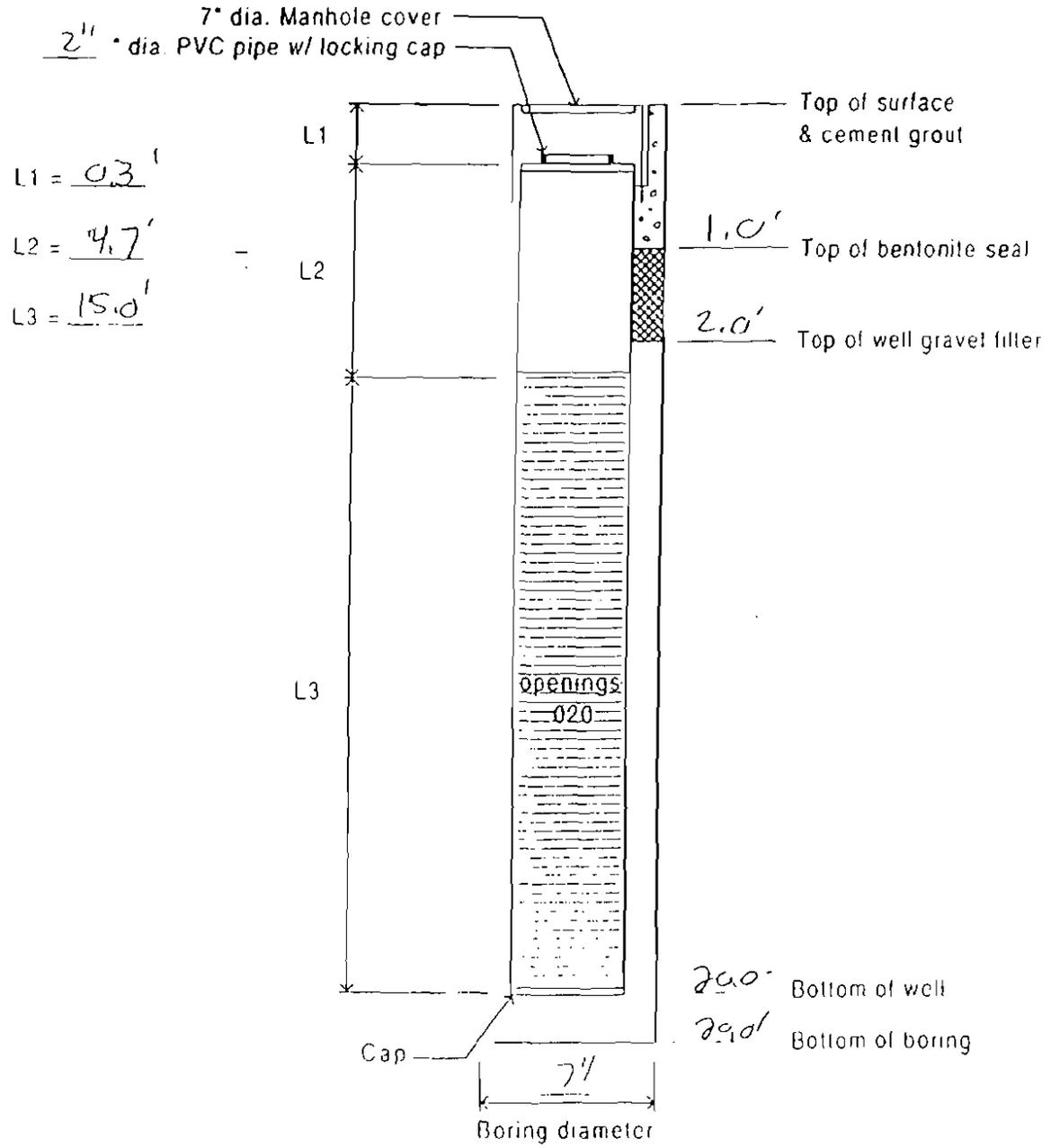
Sheet 2 of 7

PROJECT PN - Naparac Site, Bore 63				CONTRACT NO 426-99-006	
LOCATION As Laid out in field as per drawings				CONTRACTOR Craig's	
WELL NO MW-NY	WELL TYPE "B" Monitor	INSPECTOR D. Howe	DRILLER D. Osuch	DATE 9/3/99	

**Well Development Report**

(NOTE WATER LEVEL READINGS FROM TOP OF PVC)

DATE 9/7/99	WATER LEVEL BEFORE 7.7'	WATER LEVEL AFTER 7.7'	TAKEN 10	MINUTES AFTER
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REMARKS



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MATERIALS ENGINEERING DIVISION  
CHAIN OF CUSTODY RECORD

Sheet 4 of 4

PROJECT: <i>PN - Naperville S. Te, Berth 6B</i>	
LOCATION: <i>Island out in field</i>	DATE: <i>9/3/79</i>
BORING No: <i>MU-NY</i>	TOTAL No. OF SAMPLES: <i>2</i>

SIGNATURE OF ALL

PRESENT AT SAMPLING



RELINQUISHED

DATE *9/3/79*

RECEIVED

BY (SIGN)



TIME *1:30*

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

-

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

*2-Soil Sample s# 1 & 4 each 1-kg Just Methanol Sol Per*