

4/98

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
P.O. Box 435, TRENTON, NJ 08625-0435**

PRELIMINARY ASSESSMENT REPORT

Answer all questions. Should you encounter any problems in completing this form, we recommend that you discuss the matter with a representative from the Site Remediation Program. Submitting incorrect or insufficient data may cause processing delays and possible postponement of your transaction.

PLEASE PRINT OR TYPE

Date September 27, 2002

Industrial Establishment/Site Name PSE&G Former City Dock Substation

Address River Street and City Dock Street (Vacated); see Figure 1

City or Town Newark Zip Code 07102

Municipality Newark County Essex

Block(s) 134 Lot(s) 10 (partial)

Site Remediation Program Case Number or EPA Identification Number N/A

1. Present a history of ownership and operations at the industrial establishment, in tabular form, from the time the site was naturally vegetated or utilized as farmland in accordance with N.J.A.C. 7:26E-3.1(c)1.i. (attach additional sheets as necessary) See Appendix A

Name of Property Owner	From	To
Newark Light and Power Company	Pre- 1892	Unknown
United Electric Company	Pre-1905	Unknown
Public Service Corporation of New Jersey	Pre- 1908	Unknown
Public Service Electric & Gas Company	Pre- 1973	Present

Name of Operator	From	To
Newark Light and Power Company	Pre- 1892	Unknown
United Electric Company	Pre-1905	Unknown
Public Service Corporation of New Jersey	Pre- 1908	Unknown
Public Service Electric & Gas Company	Pre- 1973	Present

2A. In accordance with N.J.A.C. 7:26E-3.1(c)1.ii, provide a clear and concise description of the past industrial/commercial operation(s) conducted on site by each owner and operator. To the extent available the site history shall include an evaluation of the following sources of information:

- (1) Sanborn Fire Insurance Maps; (2) MacRae's Industrial Directory; (3) Title and Deed; (4) Site plans and facility as-built drawings; (5) federal, state, county and local government files; (6) The Department Geographic Information System; and (7) any additional sources which may be available for a specific site.

Site history is frequently an item where preliminary assessments are incomplete. The Industrial Site Recovery Act requires that a diligent inquiry be made, researching the site history back to January 1, 1932. Common answers to this question have included: "Unknown," or "We are only a tenant on the site and have no knowledge of prior site history." Neither of these answers satisfies the requirement for a due diligent inquiry.

To avoid having a PA found incomplete by the Department due to insufficient information, the site history must be researched. The following are ways of obtaining information regarding site history: title searches; contacting the local and county health officials and municipal agencies (for example, local fire and police departments, and local planning, zoning, adjustment boards) requesting any information these public agencies may have on the specific location; and, interviewing long time neighbors of the industrial establishment. Tenants should always request information from the landlord. The applicant should always document any attempts to locate this information to support a claim that a diligent inquiry has been conducted. If the prior site history demonstrates that the current building was built on vacant unimproved property, it should be reported as such. If the site has been, or is now the subject of a site remediation, any prior cases should always be referenced.

Provide the page or appendix number where the site history may be found. Appendix A

Provide a listing of the resources utilized to compile the site history and as appropriate copies of any maps or information, which will assist the Department in evaluating your conclusions.

Name of Resource	Date of document reviewed	Appendix # if providing copies
See Appendix B		

2B. Include a detailed description of the most recent operations subject to this preliminary assessment.

Provide the page or appendix # where the description of the most recent operations may be found.
Appendix A

3. Hazardous Substance/Waste Inventory: N.J.A.C. 7:26E-3.1(c)1.iii. List all raw materials, finished-products, formulations and hazardous substances, hazardous wastes, hazardous constituents and pollutants, including intermediates and by-products that are or were historically present on the site. Note: If past usage included farming, pesticides may be a concern and should be included in this list. (attach additional sheets if necessary).

Material Name	Quantity known	Typical annual usage (gallons/lbs)	Storage method (i.e. Drum, tank, jars)
See Appendix C			

- 4A. In accordance with N.J.A.C. 7:26E-3.1(c)iv provide a summary of all current and historic wastewater discharges of Sanitary and/or Industrial Waste and/or sanitary sludges. Present and past production processes, including dates, and their respective water use shall be identified and evaluated, including ultimate and potential discharge and disposal points and how and where materials are or were received on-site. All discharge and disposal points shall be clearly depicted on a scaled site map.

Information required under this item is intended to identify potential discharges to any on-site disposal system, such as a septic system or lagoon or drywell. As an example, a facility that currently discharges sanitary and other wastes to the public sewer system, but maintained an on-site septic system prior to 1976, would complete this item as follows:

EXAMPLE

Discharge Period		Discharge Type	Discharge Location
From	To		
1977	Present	Sanitary/Industrial	Public Treatment Works
1960	1977	Sanitary/Industrial	On-site Septic System
1955	1960	Sanitary	On-site Septic System

Site Information

Discharge Period		Discharge Type	Discharge Location
From	To		
Pre- 1892	1924	Sanitary/ Industrial	Newark Combined Sewer System
1924	Present	Sanitary/ Industrial	PVSC Treatment Works
See Appendix D			

- 4B. Provide a narrative of disposal processes for all historic and current process waste streams and disposal points. (attach additional sheets if necessary)

See Appendix E

- 5. This question requires the applicant to conduct a diligent inquiry into the current and historic operations at the site to identify all of the potential areas of concern, which formerly or currently exists at the industrial establishment as defined in N.J.A.C. 7:26E-1.8.

Diligent inquiry as defined in N.J.A.C.7:26E-1.8 states:

A. Conducting a diligent search of all documents which are reasonably likely to contain information related to the object of the inquiry, which documents are in such person's possession, custody or control, or in the possession, custody or control of any other person from whom the person conducting the search has a legal right to obtain such documents; and

B. Making reasonable inquiries of current and former employees and agents whose duties include or included any responsibility for hazardous substances, hazardous wastes, hazardous constituents, or pollutants, and any other current and former employees or agents who may have knowledge or documents relevant to the inquiry.

In accordance with N.J.A.C. 7:26E3.1(c)1.v., a narrative shall be provided for each area of environmental concern describing the (A) Type; (B) Age; (C) Dimensions of each container/area; (D) Chemical Content; (E) Volume; (F) Construction materials; (G) Location; (H) Integrity (i.e., tank test reports, description of drum storage pad); and (I) Inventory control records, unless a Department-approved leak detection system, pursuant to N.J.A.C. 7:1E or 7:14B, has always been in place and there is no discharge history. If sampling is not proposed for any identified area of environmental concern, please explain why it is believed that the area of environmental concern does not contain contaminants above the applicable remediation standards. Submit all necessary documentation to verify this belief. The required narrative need not describe the sampling to be completed; however, it should state that sampling will be completed in accordance with the appropriate section of N.J.A.C.7:26E. Detailed descriptions of all remediation activities shall be described in the site investigation report in accordance with N.J.A.C.7:26E-3.13. Note: If the industrial establishment has multiple locations for one type of area of concern (example: underground storage tanks are located in 3 separate areas of the facility), each area must be discussed separately.

Please indicate if any of the potential areas of environmental concern listed below in #5A through #5G, as defined in N.J.A.C. 7:26E-1.8, formerly or currently exist at the industrial establishment by indicating Yes or No in the appropriate space as provided.

For the Location Reference Keyed to Site Map, use either a number or letter identification and be consistent throughout each phase of the remediation, referring to the same identification provided herein.

Provide the required narrative as an appendix to this report. Do not try to provide a narrative in the space provided

I hereby certify that a diligent inquiry has been conducted to identify all current and historical potential areas of environmental concern and based on the diligent inquiry the areas of environmental concern identified below in question 5A through 5G are the only areas of environmental concern believed to exist at the above referenced industrial establishment.

A. Bulk Storage Tanks and Appurtenances, including, without limitation:

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Aboveground Storage Tanks and Associated Piping	Yes	1	F
Underground Storage tanks and Associated Piping	No		
Silos	No		
Rail Cars	No		
Loading and unloading areas	Yes	2	F
Piping, above ground and below ground pumping stations, sumps and pits	Yes	3	F

B. Storage and Staging Areas, including

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Storage pads including drum and/or waste storage	Yes	4	F
Surface impoundments and lagoons	No		
Dumpsters	No		
Chemical storage cabinets or closets	No		

C. Drainage systems and areas including without limitation

Area of Concern	Currently or Formerly Exists at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Floor drains, trenches and piping and sumps	Yes	5	F
Process area sinks and piping which receive process waste	No		
Roof leaders when process operations vent to the roof	No		
Drainage swales & culverts	No		
Storm sewer collection systems	No		
Storm water detention ponds and fire ponds	No		
Surface water bodies	Yes	6	F
Septic systems leachfields or seepage pits	No		
Drywells and sumps	No		

D. Discharge and disposal areas, including, without limitation:

Area of Concern	Currently or Formerly Exist at the Site: Yes/No	Location Referenced to the Site Map	Appendix Number
Areas of discharge per N.J.A.C. 7:1E	Yes	7	F
Waste piles as defined by N.J.A.C 7:26	No		
Waste water collection systems including septic systems, seepage pits, & dry wells.	No		
Landfills or landfarms	No		
Sprayfields	No		
Incinerators	No		
Historic Fill or any other Fill material	Yes	8	F
Open Pipe discharges	Yes	9	F

E. Other areas of concern, including, without limitation:

Area of Concern	Currently or Formerly Exist at the Site: Yes/No	Location Referenced to the Site Map	Appendix Number
Electrical Transformers & Capacitors	Yes	10	F
Hazardous material storage or handling areas	Yes	11	F
Waste Treatment areas	No		
Discolored or spill areas	Yes	7	F
Open areas away from production areas	No		
Areas of stressed vegetation	No		
Underground piping including industrial process sewers	Yes	12	F
Compressor vent discharges	No		
Non-contact cooling water discharges	No		
Areas which receive flood or storm water from potentially contaminated areas	No		
Active or Inactive production wells	No		

F. Building interior areas with a potential for discharge to the environment, including, without limitation:

Area of Concern	Currently or Formerly Exist at the Site: Yes/No	Location Referenced to the Site Map	Appendix Number
Loading or Transfer areas	Yes	13	F
Waste Treatment areas	No		
Boiler rooms	Yes	14	F
Air vents and ducts	No		
Hazardous material storage or handling areas	Yes	11	F

G. Any other site-specific area of concern:

Area of Concern	Currently or Formerly Present at the Site Yes/No	Location Referenced to the Site Map	Appendix Number
Painting Area	Yes	15	F
Carpenter Shop	Yes	16	F
Potential Former Fill Port	Yes	17	F

6. If the site area exceeds two acres, an interpretation of the aerial photographic history of the site shall be submitted in accordance with N.J.A.C. 7:26E-3.1(c)1.vi. The interpretation shall be based on available current and historical color, black and white and infrared aerial photographs (scale 1:18,000 or less) of the site and surrounding area at a frequency that provides the evaluator with a historical perspective of site activities. The photographic history shall date back to 1932 or the earliest photograph available. Aerial photographs are available for review at the New Jersey Department of Environmental Protection, Tidelands Management Program, Aerial Photo Library, 9 Ewing Street, Trenton, New Jersey, (609) 633-7369. Note, the applicant is not required to provide the Department with copies of the aerial photographs reviewed only an interpretation of what was observed in each photograph, which may represent an environmental concern.

_____ Check here if an aerial photo review was not complete and provide a reason.

Provide the appendix number for the air photo review narratives: Appendix G

7. Discharge History of Hazardous Substances and Wastes, N.J.A.C. 7:26E-3.1(c)1.vii:

A. Have there been any known discharges of hazardous substances and wastes at the site?

_____ No (Go to question #8) ✓ Yes (Complete Items 7B & 7C)

B. Was the Department notified of the discharge?

✓ Yes _____ No

If yes, provide the Case # 02-09-20-1032-04

C. Was a no-further-action letter, negative-declaration approval or full-compliance letter issued as a result of the cleanup of this discharge?

_____ Yes (Submit a copy of the no-further-action approval)

No (Submit a complete Site Investigation or Remedial Action Report documenting the action taken to address the discharge) Remedial action details are provided in Appendix I.

8. In accordance with N.J.A.C. 7:26E-3.1 (c) 1.vii, provide a description of any remediation activities previously conducted or currently underway at the site, including dates of discharges, remedial actions taken, and all existing sample results concerning contaminants which remain at the site. Copies of Department or other governmental agency no-further-action approvals should also be provided with a description of the areas to which the no-further-action approvals apply. This information is especially important if the approval was granted for the remediation of a portion of a site or a specific discharge event rather than the entire site subject to this preliminary assessment.

_____ Check here if this question does not apply.

Provide the appendix number for the required narrative and data summary Appendix I

9. Protectiveness of past remedies, Order of Magnitude Analysis, N.J.A.C. 7:26E-3.1(c) 1.ix and N.J.A.C. 7:26E, 3.2(a)5.

A. Have any areas of concern previously received a No-Further-Action approval from the Department or other equivalent government agency for which no additional remediation is proposed?

No (go to question #10) _____ Yes (complete 9B)

B. In accordance with N.J.S.A 58:10B-13(e) the following evaluation of the protectiveness of past remedies shall be completed for all areas of concern for which no further action was previously approved by the Department or other equivalent government agency and for which no additional remediation is proposed. All final sampling results shall be evaluated to determine if contaminant levels remaining on site are in compliance with current remediation criteria. The applicant shall complete the following:

Include a table comparing the levels of contaminants remaining in each area of concern, the numerical remediation standard approved in the remedial action workplan or at the time of no-further-action approval and the numerical remediation standards applicable at the time of the comparison. The table shall contain all sampling results, including sample location, sample media, field and laboratory identification numbers, and method detection limits, as necessary, and analytical results for all individual contaminants for each area of concern.

I hereby certify that the order of magnitude analysis required pursuant to N.J.A.C. 7:26E has been completed, since the issuance of a No-Further-Action approval, negative declaration approval or equivalent remediation approval; and (Check the appropriate statements (1), (2), (3) or (4))

(1) _____ The areas of concern listed below contain contaminants above the numerical remediation standard applicable at the time of the comparison, however no further action is required because: (check the appropriate sub statement)

_____ (a) The contaminant concentrations remaining in the areas of concern listed below are less than an order of magnitude (factor of 10) greater than the numerical remediation standard applicable at the time of the comparison;

_____ (b) The areas of concern or the site was remediated using engineering and institutional controls approved by the Department and these controls are still protective of public health, safety and the environment; or

___ (c) The area of concern or the site was remediated to an approved site-specific remediation standard and all of the factors and assumptions which are the basis for deriving the site-specific remediation standard remain valid for the site.

Please list the areas of concern for which the previous statement applies.

Area of Concern	Location Reference Keyed to the Site Map

(2) ___ The areas of concern listed below contain contaminants above the numerical remediation standard applicable at the time of the comparison and further remediation is required because: (check the appropriate sub statement)

___ (a) The contaminant concentrations remaining in the areas of concern listed below are more than an order of magnitude (factor of 10) greater than the numerical remediation standard applicable at the time of the comparison;

___ (b) The areas of concern or the site was remediated using engineering and institutional controls approved by the Department and these controls are no longer protective of public health, safety and the environment; or

___ (c) The area of concern or the site was remediated to an approved site specific remediation standard and some or all of the factors and assumptions which are the basis for deriving the site specific remediation standard are no longer valid;

Please list the areas of concern for which the previous statement applies.

Area of Concern	Location Reference Keyed to the Site Map

(3) ___ The areas of concern listed below do not contain contaminants above the numerical remediation standard applicable at the time of the comparison and no further remediation is required.

Please list the areas of concern for which the previous statement applies.

Area of Concern	Location Reference Keyed to the Site Map

(4) The contaminant concentrations remaining in the below listed areas of concern are more than an order of magnitude greater than the numerical remediation standard applicable at the time of the comparison. However, no further remediation is required by the person conducting this preliminary assessment, because, in accordance with N.J.S.A. 58:10B13(e), that person is not liable for the contamination pursuant to N.J.S.A. 58:10-23.11g

Please list the areas of concern for which the previous statement applies.

Area of Concern	Location Reference Keyed to the Site Map

10. Historical Data on environmental quality at the Industrial Establishment

A. Have any previous sampling results documenting environmental quality of the Industrial Establishment not received a no further action approval from the Department or been denied approval by the Department? (N.J.A.C. 7:26E-3.1(c)1.viii)

Yes (See Appendix I) No (Go to 11)

B. Have there been any known changes in site conditions or new information developed since completion of previous sampling or remediation? If sampling results were obtained, but are not part of this application, please explain below (N.J.A.C. 7:26E-3.1.xi):

There have been no changes in site conditions or new information developed since completion of the previous remediation and sampling activities detailed in Appendix I, Section C.

11. List all federal, state and local environmental permits at this facility, including permits for all previous and current owners or operators, applied for, received, or both (Attach additional sheets if necessary).

Check here if no permits are involved ✓

A. New Jersey Air Pollution Control

Permit Number	Expiration Date	Type of Permitted Unit

B. Underground Storage Tank Registration Number _____

Size of Tank (Gallons)	Tank Contents

C. New Jersey Pollutant Discharge Elimination System (NJPDES) Permit

Permit Number	Discharge Type	Discharge Location Keyed to Site map	Expiration Date

D. Resource Conservation and Recovery Act (RCRA) permit # _____

E. EPA Identification Number _____

F. In accordance with N.J.A.C. 7:26E-3.1(c) xii, list all other federal, state, local government environmental permits for all previous and current owners or operators applied for and/or received for the site including :

- (1) Name and address of the permitting agency
- (2) The reason for the permit
- (3) The permit identification number
- (4) The application date
- (5) The date of approval, denial or status of the application
- (6) The name and current address of the permittees
- (7) The reason for the denial, revocation or suspension if applicable
- (8) The permit expiration date

Check here if no other environmental permits were applied for or received for this site.

Provide the appendix # for the required listing if other environmental permits exist for this site.

12. In accordance with N.J.A.C. 7:26E-3.1(c)xiii, provide a summary of enforcement actions (including but not limited to, Notice of Violations, Court Orders, official notices or directives) for violations of environmental laws or regulations (attach additional sheets if necessary):

A. Check here if no enforcement actions are involved (Go to 13 otherwise complete 12B)

B. (1) Name and address of agency that initiated the enforcement action

(2) Date of the enforcement action _____

(3) Section of statute, rule or permit allegedly violated _____

(4) Type of enforcement _____

(5) Description of the violation _____

(6) How was the violation resolved? _____

13. In accordance with N.J.A.C. 7:26E-3.1(c) xiv, please provide a narrative description of all areas where non-indigenous fill materials were used to replace soil or raise the topographic elevation of the site, including the dates of emplacement. **See Appendix H**

14. A. In accordance with N.J.A.C. 7:26E-3.2(a) 3.i, submit a scaled site plan, detailing the subject lot and block, property and or leasehold boundaries, location of current and former buildings, fill areas, paved and unpaved areas, vegetated areas, and all areas of concern identified above and all active or inactive wells. **See Figure 2**

B. Scaled historical site maps and facility as built drawings (if available).

C. A copy of the United States Geologic Survey (USGS) 7.5 minute topographical quadrangle that includes the site and an area of at least one mile radius around the site. The facility location shall be clearly noted. If a portion of the USGS quadrangle is used, the scale, north arrow, contour interval, longitude and latitude with the name and date of the USGS quadrangle shall be noted on the map. **See Figure 1**

15. In accordance with N.J.A.C. 7:26E-3.2, please provide the date that the site visit was completed to verify the findings of the preliminary assessment. June 6, 2002, August 8, 2002, and September 4, 2002

16. List any other information you are submitting or which has been formerly requested by the Department:

Description	Appendix #
Summary of Environmental Sampling Results	Appendix I

CERTIFICATION:

The following certification shall be signed by the highest-ranking individual at the site with overall responsibility for that site or activity. Where there is no individual at the site with overall responsibility for that site or activity, this certification shall be signed by the individual having responsibility for the overall operation of the site or activity.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information, and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Corporation MATRIX/NEWARK CITY DOCK, L.L.C. by
its duly authorized representative
MATRIX REALTY, INC

By: Typed/Printed Name RICHARD F.X. JOHNSON Title SENIOR VICE PRESIDENT

Signature Richard F.X. Johnson Date October 2, 2002

Sworn to and Subscribed Before Me on this 2nd

CYNTHIA M. SMITH
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires May 3, 2006

Date of October 20 02

Cynthia Smith
Notary

**Division of Responsible Party Site Remediation
Industrial Site Recovery Act**

INITIAL NOTICE FEE SUBMITTAL FORM

Case # (if known) _____

Case Name (Active Case) _____

Check drawn from the account of _____ Check/M.O. # _____

Amount Enclosed _____

Please circle the appropriate payment location(s)

1.	General Information Notice	\$ 100.00
2.	Preliminary Assessment Report	\$ 250.00
3.	Site Investigation Report	\$ 500.00
4.	Negative Declaration Review	\$ 100.00
5.	Expedited Review Application*	\$ 250.00
6.	Remediation in Progress Waiver Application*	\$ 250.00
7.	Regulated Underground Storage Tank Waiver Application*	\$ 500.00
8.	Area of Concern Waiver Application*	\$ 200.00
9.	Limited Site Review Application*	\$ 450.00
10.	Applicability Determination Application	\$ 200.00
11.	De minimis Quantity Exemption Application	\$ 200.00
12.	Limited Conveyance Application*	\$ 500.00
13.	Remediation Agreement Application	\$ 1,000.00
	Remediation Agreement Amendment Application	\$ 500.00
14.	Confidentiality Claim	\$ 250.00
15.	Remedial Action Workplan Deferral Application*	\$ 750.00

This fee includes the costs of the Department's review of the General Information Notice required pursuant to N.J.A.C. 7:26B-3.2(a). Any person submitting this fee shall not be required to submit a separate General Information Notice fee.

Note: All applicable fees are due with the submission of each document. A case will remain with the Initial Notice Section up through the submission of a Remedial Investigation Report or the submission of a schedule to implement a Remedial Investigation or Remedial Action at Peril.

APPENDIX C

Hazardous Substance/Waste Inventory

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Hazardous Substance/Waste Inventory

Although ENVIRON requested an inventory of hazardous substances and/or wastes historically used or stored at the site, PSE&G personnel could not locate or provide such an inventory or any other information regarding hazardous substances and/or wastes historically used or stored at the site. However, it is presumed that, given the long history of electrical generation at the facility, at some point PCB-containing dielectric fluids were used and/or stored at the site. Historic facility drawings indicate the presence of mercury arc rectifiers on the main floor of the building. Therefore, mercury was used and may have been stored at the site during its history. PSE&G personnel indicated that all mercury used and stored at the site was removed in conjunction with removal of the mercury arc rectifiers. A battery room remains at the site, which contains banks of lead-acid batteries, indicating the usage and potential storage of hazardous materials associated with the batteries (*i.e.*, battery acid) at the site. According to PSE&G personnel, maintenance staff did routinely clean and polish the electrical equipment at the site. It is unclear what materials were used to clean and polish the equipment or if this activity included the use of any solvent materials.

During the June 6, 2002 site visit, ENVIRON did notice at least two, approximately gallon-size, metallic containers of an all-purpose cleaning agent lying on the floor in the basement of the building. The basement floor was noted to have good integrity and no floor drains were present in the area surrounding the cleaning agent containers. PSE&G personnel have indicated that no materials were stored in large quantities (*e.g.*, drums) and those materials that were used at the site were used in small quantities and were only stored in small containers.

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APPENDIX I

Summary of Environmental Sampling

APPENDIX I

Summary of Environmental Sampling

A. Historical Sampling Activities

Subsurface geophysical assessments have been completed along the banks of the Passaic in the vicinity of the site by the US Army Corps of Engineers (ACOE) as part of a bulkhead restoration project. A May 1996 report issued by the ACOE includes a summary of a single geotechnical boring (NKG-16) completed immediately east of the facility building. This boring characterized the subsurface geology below the site as being approximately 14 feet of "urban" fill material (including gravel, sand, brick, concrete, wood and asphalt) overlying approximately 4 feet of clay with siltstone fragments. This clay, in turn, overlies a glacial outwash unit which overlies a dense clayey silt and gravely, silty sand. No field screening data are available from the summary of boring NKG-16, and no environmental quality data were collected during its completion.

B. Limited Site Investigation

1. Introduction

Based on the findings of ENVIRON's Preliminary Assessment, several potentially significant areas of environmental concern are present at the City Dock parcel. These potential areas of concern include:

- Numerous storage tanks depicted at the northern portion of the City Dock parcel on currently available, historical fire insurance maps;
- A former oil storage area at the northeastern corner of the building, as noted on a historical fire insurance map;
- A former aboveground fuel tank location at the southeastern corner of the building;
- Former transformer and regulator locations adjacent to the eastern and western building walls;
- Reported transformer maintenance activities within the southeastern portion of the building and a former storage area adjacent to the southeastern portion of the building;
- Former mercury arc regulators within the southwestern portion of the building; and
- Numerous floor drains and sump within the lower level of the building.

Based on the presence of several potential areas of environmental concern, ENVIRON completed an initial site investigation during July and August 2002 to characterize soil and ground water quality at the City Dock parcel. ENVIRON also observed test pit excavations completed at the City Dock parcel. A summary of the test pit excavation observations and the initial site investigation results are provided below.

2. Test Pits Excavation Observations

Three test pits (TP10, TP12, TP13) were excavated on the City Dock Parcel. Test pit locations are depicted on Figure I-1 and test pit logs are provided in Appendix I-1. ENVIRON did not collect soil samples from the test pits at the City Dock parcel.

Consistent with the reports of historical fill material at the City Dock parcel, black cinder fill material and/or building debris was encountered to depths ranging between 6 and 9 feet bgs at each test pit excavation. Red brown silt and fine to medium sands were encountered beneath the fill material at test pits TP10 and TP13. The silt/sand unit was not encountered at test pit TP12. There was no field evidence of contamination noted during the excavation activities, with the exception of test pit TP10 where an oily sheen was noted to be present on water at the base of the excavation at TP10.

3. Initial Site Investigation Results

As noted above, ENVIRON completed an initial site investigation to evaluate potential impacts associated with the potential areas of environmental concern and to characterize soil and ground water quality at the City Dock parcel. Sample collection and equipment decontamination procedures were completed in accordance with NJDEP guidelines and regulations. Direct push drilling services were provided by Terraprobe, Inc., and rotary drilling services were provided by Advanced Drilling, Inc. Laboratory services were provided by Accutest Laboratories, Inc.

Results of the initial site investigation activities are detailed below. A summary of the sampling program is provided in Table I-1 and sample locations are depicted on Figure I-2. Soil boring logs are provided in Appendix I-2 and monitoring well construction logs are provided in Appendix I-3.

a) Historic Fill Material and other Exterior Areas of Concern

Ten soil borings (SB1 – SB10) were completed at the Site to characterize soils and historic fill material in the area surrounding the City Dock building. Soil boring locations were positioned to evaluate potential impacts associated with former tanks and oil storage areas at the northern portion of the parcel, a storage/loading area at the southeastern portion of the parcel, and historic fill material across the City Dock parcel (*i.e.*, AOCs 1, 4, and 8, respectively).

Each soil boring was completed through the fill material, using direct push drilling techniques (*i.e.*, Geoprobe), to a depth of approximately 10 feet bgs. One soil sample was collected from each soil boring. Soil sampling intervals were targeted toward potentially impacted material, or at varying depths to horizontally and vertically characterize the fill, if potentially impacted zones were not encountered. Soil samples from three soil borings (SB4, SB6, and SB9) were analyzed for Priority Pollutant parameters plus a 40-compound forward library search (PP+40)

and total petroleum hydrocarbons (TPHCs). Soil samples from the remaining seven soil borings were analyzed for Priority Pollutant metals, polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), and TPHCs.

Oily soils were identified at two soil borings positioned to the north of the City Dock Building (SB3 and SB10) and a light sheen was noted on ground water at a soil boring positioned beyond the northeast corner of the building (SB6). As summarized in Table I-2, volatile organic compounds (VOCs) were not detected in the exterior area soil samples and reported TPHC concentrations at each exterior area, soil boring location (177 mg/kg maximum) were well below NJDEP's total organic cap criterion of 10,000 mg/kg. In addition, with the exception of soil boring SB5, reported PCB concentrations at each location were below the most stringent NJDEP soil cleanup criteria. The reported PCB concentration in the primary soil sample from SB5 (1.19 mg/kg) was above the NJDEP Residential Direct Contact Soil Cleanup Criterion of 0.49 mg/kg, but below the corresponding non-residential cleanup criterion of 2 mg/kg. The reported PCB concentration in the duplicate sample from SB5 was below the most stringent NJDEP soil cleanup criteria.

Reported PAH concentrations at several soil boring locations (*i.e.*, SB1, SB5, SB6, SB7, and SB9) were above the corresponding NJDEP Residential and Non-Residential Direct Contact Soil Cleanup Criteria. Arsenic and lead were also detected at the northern end of the City Dock parcel (*i.e.*, SB1, SB5, and SB6) at concentrations above the corresponding NJDEP Residential Direct Contact Soil Cleanup Criteria. With the exception of SB1, the reported arsenic and lead concentrations at these locations were also above the NJDEP Non-Residential Direct Contact Soil Cleanup Criteria. However, the reported PAH and metals concentrations were within the range of concentrations detailed in NJDEP's Historic Fill Database (N.J.A.C. 7:26E). Based on the presence of historic fill material across the City Dock parcel, the reported PAH and metals concentrations are believed to be related to historic fill material and not an indication of historic releases.

b) Former Fuel Tank Containment Area

Two soil borings (SB11 and SB12) were completed within the former containment area adjacent to the southeastern corner of the building to characterize soil quality at the former fuel tank location (AOC 1). The fuel tank containment area is surrounded by a brick wall and underlain by soil/fill material. The soil/fill material is overlain by a thin layer of crushed stone.

Each soil boring was advanced to depth of approximately 2 feet bgs, by an ENVIRON geologist, using properly decontaminated hand augers. Soil boring locations were targeted toward the approximate centerline of the former aboveground fuel tank. One soil sample was collected from each soil boring and analyzed for TPHCs. In accordance with the *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E), soils from the sample location containing the highest TPHC concentration (*i.e.*, SB12) were also analyzed for VOCs and PAHs.

Samples were collected immediately below the stone layer, as impacted soils were not identified during the sampling activities.

As summarized in Table I-2, reported TPHC concentrations (268 mg/kg maximum) were well below the corresponding NJDEP total organic cap criterion of 10,000 mg/kg and VOCs were not detected in the soil sample from SB12. As presented in Table 2, several PAHs (*i.e.*, benzone(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene) were detected at concentrations above the corresponding NJDEP Residential Direct Contact Soil Cleanup Criteria and benzo(a)pyrene (1.45 mg/kg) was detected at a concentration above the corresponding Non-Residential Direct Contact Soil Cleanup Criteria. However, the reported PAH concentrations at soil boring SB12 were consistent with the range of PAH concentrations detailed in NJDEP's Historic Fill Database (N.J.A.C. 7:26E). Given the historic fill material across the City Dock parcel and the lack of other fuel-related constituent detections within the fuel tank containment area, the reported PAH concentrations at SB12 are believed to be related to historic fill material and not an indication of historic releases from the former aboveground fuel tank.

c) Former Transformer and Regulator Containment Areas

Two soil borings were completed within each of the five former transformer and regulator containment areas adjacent to the eastern and western building walls (*i.e.*, a total of 10 soil borings; SB13 – SB22). The transformer/regulator containment areas (AOC 10) are surrounded by a concrete berm and are underlain by soil/fill material.

Each soil boring was advanced to a maximum depth of approximately 2 feet bgs, by an ENVIRON geologist, using properly decontaminated hand augers. Soil boring locations targeted stained areas and points beneath the former transformers and regulators. One soil sample was collected from each soil boring and analyzed for TPHCs and PCBs. Sample depths were biased towards impacted soil/stone layers.

Oily soils were identified at each former transformer/regulator containment area, with stained/oily soils extending to approximately 2 feet bgs at each containment area. As summarized in Table I-2, reported TPHC concentrations within the containment areas ranged from 44,800 – 204,000 mg/kg and the reported TPHC concentration at each sampling location was above the NJDEP total organic cap criterion of 10,000 mg/kg. Reported PCB concentrations at each containment area sampling location were above the corresponding NJDEP Residential Direct Contact Soil Cleanup Criterion of 0.49 mg/kg. However, only the reported PCB concentrations at sample location SB16 (14.4 mg/kg) was above the NJDEP Non-Residential Direct Contact Soil Cleanup Criterion of 2 mg/kg.

d) Building Interior

Sediment samples were collected from three sumps identified within the basement of the City Dock building during the Preliminary Assessment (AOC 5). Two of the sumps (SB26 and SB27) are located within the south-central portion of the building and one sump (SB29) is located within the north-central portion of the building.

One sediment sample was collected from each sump and analyzed for TPHCs, PCBs, and Priority Pollutant metals. Although ENVIRON had originally proposed to collect soil sample from beneath the basement floor of the City Dock building, the soil samples could not be collected due to the integrity of the floor and the thickness of the concrete slab.

As detailed in Table I-2, reported TPHC concentrations within the south-central sump sediments (262 mg/kg maximum) were well below the NJDEP total organic cap criterion of 10,000 mg/kg and reported PCB concentrations were below the most stringent NJDEP soil cleanup criteria. However, several metals (*i.e.*, arsenic, copper, and lead) were detected in the south-central sump sediments at concentrations above the corresponding NJDEP Residential and Non-Residential Direct Contact Soil Cleanup Criteria. All other reported metals concentrations were below the most stringent soil cleanup criteria.

As presented in Table I-2, reported TPHC concentrations within the north-central sump sediments were below the NJDEP total organic cap criterion of 10,000 mg/kg. The reported PCB concentration at SB29 (1.09 mg/kg) was above the NJDEP Residential Direct Contact Soil Cleanup Criterion, but below the NJDEP non-residential criterion of 2 mg/kg. Several metals (*i.e.*, antimony, arsenic, copper, lead, mercury, and zinc) were also detected in the north-central sump sediments at concentrations above the corresponding NJDEP Residential Direct Contact Soil Cleanup Criteria. The reported arsenic, copper, lead, and zinc concentrations were also above corresponding NJDEP Non-Residential Direct Contact Soil Cleanup Criteria.

Following evaluation of the site investigation sampling results, sediments within each sump were excavated to allow for inspection of the sump construction and evaluation of the sump integrity. Excavated sediments were staged on poly sheeting immediately adjacent to each sump. The inspection activities determined that each sump was constructed of concrete sidewalls with a concrete base. Although relatively minor deterioration was noted at each sump, the sumps were noted to be intact with good integrity and no potential contaminant migration pathways were identified. Based on electrical conduit piping entering the sumps, the sumps were determined to be related to former electrical service rather than wastewater collection or conveyance.

e) **Ground Water Quality**

Monitoring Well Installation

Four permanent monitoring wells (MW1 – MW4) were installed during the initial site investigation to characterize ground water quality at the City Dock parcel. As noted above, drilling services were completed by Advanced Drilling, Inc., under the direct supervision of an ENVIRON geologist. Monitoring wells depths ranged from approximately 10 to 14 feet bgs and each monitoring well was constructed using 2-inch diameter, schedule 40 PVC, with 8 to 10 ft of 0.010-inch screen positioned across the water table. Boreholes were filled with a coarse, #1 sand media to approximately 1 foot above the top

of the screened interval, fine #00 sand 0.5 to 1 foot above the #1 sand, and bentonite-cement grout to the ground surface. Flush-mount protective casings were installed following the completion of each monitoring well. After installation was complete, each monitoring well was developed using a submersible pump until purge water remained clear during agitation. Each monitoring well was surveyed by B2Z Associates relative to the site-wide used NAVD-88 datum.

Ground Water Sample Collection

On August 8, 2002, two weeks after well development, depth-to-ground water measurements and ground water samples were collected at each monitoring well. Ground water elevations were determined using depth-to-ground water measurements and surveyed top-of-well casing elevations. Ground water elevation information is presented in Table I-3 and an estimate of the water table surface is depicted on Figure I-3. Based on the August 2002 measurements, ground water flow at the City Dock parcel appears to be directed towards the east-southeast.

Each ground water sample collected at the City Dock parcel was analyzed for VOCs, PAHs, PCBs, and Priority Pollutant metals. As summarized in Table I-4, PCBs were not detected in the ground water samples and PAH detections were limited to the ground water sample collected from upgradient monitoring well MW4. All reported PAH concentrations were below the corresponding New Jersey Ground Water Quality Criteria for Class II-A areas. Trace concentrations of VOCs were detected in ground water samples collected from each monitoring well at the City Dock parcel. However, the reported tetrachlorethene (PCE) concentration at monitoring well MW3 (1.2 µg/l) was the only VOC present at concentrations above a corresponding New Jersey Ground Water Quality Criteria. The reported arsenic concentration at monitoring well MW3 (21.8 µg/l) was the only metal detected in ground water samples from the City Dock parcel; the arsenic concentration at MW3 was above the corresponding New Jersey Ground Water Quality Criteria of 8 µg/l.

f) Quality Assurance/Quality Control

Trip blank and wash blank samples were analyzed during the initial site investigation to identify potential cross-contamination and characterize the effectiveness of the decontamination procedures. As summarized in Tables I-5 and I-6, no targeted constituents were detected in the trip blank or wash blank samples.

4. Conclusions and Recommendations

As detailed above, ENVIRON's actions to date at the Site have included the inspection of test pit excavations completed at the Coal Street and City Dock parcels and the evaluation of soil and ground water quality at the City Dock parcel. Based on these activities:

- Observations during ENVIRON's initial site investigation activities at the northern portion of the City Dock parcel identified oily soils at two soils borings (SB3 and SB10), a sheen on water within a test pit excavation (TP10),

and a sheen on saturated soils at one soil boring (SB6). However, laboratory analyses of soil samples collected from within the oily soils at soil borings SB3 and SB10 did not identify any constituents at concentrations above the most stringent NJDEP soil cleanup criteria. With the exception of historic fill-related constituents, laboratory analyses of a soil sample collected from within the sheen interval at SB6 also did not identify any constituents at concentrations above the most stringent NJDEP soil cleanup criteria. In addition, measurements collected at a monitoring well installed adjacent to test pit TP10 did not confirm the sheen observations and ground water sampling at the monitoring well did not detect any constituents at concentrations above a corresponding New Jersey ground water quality criteria.

Based on the results of the initial site investigation, ENVIRON believes that no further actions are warranted with respect to the field observations at soil boring SB3 or SB10 or at test pit TP10. However, ENVIRON recommends that a temporary monitoring well be installed immediately adjacent to soil boring SB6 to confirm the reported sheen observation and characterize ground water quality. One ground water sample would be collected from the temporary monitoring well and analyzed for VOCs and PAHs.

- Soil sampling within the historic fill material has identified elevated concentrations of several PAHs at soil borings scattered across the City Dock parcel (*i.e.*, SB1, SB5, SB6, SB7, SB9, and SB12). Elevated arsenic and lead concentrations have also been detected at several soil borings at the northern end of the City Dock parcel (*i.e.*, SB1, SB5, and SB6). Although the reported PAH, arsenic, and lead concentrations exceed the corresponding NJDEP Non-Residential and/or Residential Direct Contact Soil Cleanup Criteria, the reported concentrations are well within the range of concentrations typically detected in historic fill materials (per NJDEP's Historic Fill Database). Based on the initial site investigation results, ENVIRON believes that no further investigatory actions are warranted with respect to the former tanks and oil storage areas at the northern portion of the parcel, the storage/loading area at the southeastern portion of the parcel, or the historic fill material across the City Dock parcel. ENVIRON recommends the use of institutional and engineering controls to address the elevated PAH, arsenic, and lead concentrations in the historic fill material, consistent with the proposed remedy at the Coal Street parcel.

Soil sampling within the historic fill material has identified PCBs at one soil boring location (SB5) at concentrations above the NJDEP Residential Direct Contact Soil Cleanup Criterion. ENVIRON recommends that additional soil sampling be completed to delineate the horizontal and vertical extent of PCB-impacted soils in the vicinity of SB5 in order to support the future use of institutional and engineering controls to address the PCB-impacted area at SB5. The additional sampling activities would include the completion of three

borings in the area surrounding SB5 to delineate the horizontal extent of the elevated PCB concentrations and one soil boring at SB5 to delineate the vertical extent of PCB-impacted soils. One soil sample would be collected from each soil boring and for PCBs. Soil sampling intervals at the horizontal delineation borings would be targeted toward the previously-identified impacted interval at SB5 and the sampling interval at the vertical delineation boring would be targeted toward soils beneath the impacted intervals.

- Soil sampling within a former fuel tank containment area has not detected any indication of potential impacts related to the former fuel tank. As result, ENVIRON recommends that no further actions are warranted with respect to the former fuel tank area. Soil sampling within the containment area has detected PAH concentrations consistent with the characteristics of the historic fill material at other areas of the City Dock parcel. As noted above, ENVIRON recommends the use of institutional and engineering controls to address the elevated PAH concentrations, consistent with the proposed remedy at the Coal Street parcel.
- Soil sampling within each of the former transformer/regulator containment areas has identified TPHCs at concentrations above NJDEP's total organic cap criterion and PCBs at concentrations above the corresponding NJDEP Residential Direct Contact Soil Cleanup Criterion. The reported PCB concentration at one sample location is also above the corresponding NJDEP Non-Residential Direct Contact Soil Cleanup Criterion. Based on the reported TPHC concentrations, ENVIRON believes that NJDEP could require that the impacted soils associated with each transformer/regulator area be excavated and removed from the City Dock parcel for proper off-site disposal. However, PSE&G is currently negotiating with NJDEP to leave soils containing elevated concentrations of TPHCs in place at the adjacent Coal Street parcel. A similar remedy may be possible for the TPHC-impacted soils at the City Dock parcel pending NJDEP's determination for the Coal Street parcel.

ENVIRON recommends that additional soil sampling be completed to determine the horizontal and vertical extent of the impacted soils at each containment area and support development of an appropriate remedy. The additional sampling activities would include the completion of 15 soil borings. The soil borings would be positioned beyond the existing concrete containment walls and one soil boring would be positioned within each containment structure. One soil sample would be collected from each soil boring and analyzed for TPHCs and PCBs. Soil sampling intervals at borings beyond the containment structures would target the previously-identified impacted zones within the containment structures. Soil sampling intervals at soil borings within the containment structures would be targeted toward soils beneath the impacted shallow soils.

- Analyses of sediment samples collected from three sumps in the basement of the City Dock building have detected PCBs at concentrations above the corresponding NJDEP Residential Direct Contact Soil Cleanup Criterion and several metals at concentrations above the corresponding NJDEP Non-Residential and/or Residential Direct Contact Soil Cleanup Criteria. As detailed above, visual inspections at the Site have confirmed the integrity of the sumps and have not identified potential migration pathways beyond the basement area. Based on the inspection results, ENVIRON believes that no further actions are warranted with respect to the sumps at the City Dock parcel. However, ENVIRON recommends that the sump sediments be removed from the Site and transported for proper off-site disposal.
- Ground water sampling has identified PCE and arsenic at one monitoring well location (MW3) at concentrations slightly above the corresponding New Jersey Ground Water Quality Criteria. All other reported constituent concentrations in ground water at the City Dock parcel were below the corresponding ground water quality criteria. Based on the isolated exceedances, ENVIRON recommends that an additional round of ground water sampling be completed at MW3 to confirm the reported constituent concentrations in the initial sample from the monitoring well. One ground water sample would be collected from MW3 and analyzed for VOCs and arsenic.

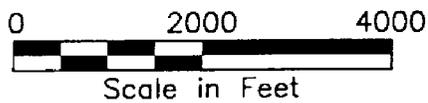
C. Removal Action Confirmation Sampling

As noted in Appendix F, Cruz Construction Corporation (Cruz), a contractor working on behalf of the U.S. Army Corps of Engineers, has temporarily staged a 275-gallon aboveground storage tank (AST) on the City Dock parcel. The AST is located adjacent to the southeastern corner of the building and is used to store diesel fuel for an adjacent generator. Cruz is installing the new bulkhead associated with the Joseph G. Minish Passaic River Waterfront Park and Historic Area at and in the vicinity of the City Dock parcel.

During a September 4, 2002 site inspection, ENVIRON noted stained surface soils in the area beneath the AST and in the area between the AST and the generator. The U.S. Army Corps of Engineers notified NJDEP of the release, via the Spill Hotline, on September 20, 2002. The spill report was assigned case number 02-09-20-1032-04.

According to PSE&G personnel, the stained soils have been excavated by the Cruz and the excavation has been backfilled with gravel. The AST and generator have been re-positioned within the storage container to minimize the potential for future releases. Post-excavation soil samples were collected by PSE&G on September 17 and September 25, 2002, in accordance with the *Technical Requirements for Site Remediation*, to confirm the efficacy of the soil removal activities. Soil sampling results and soil disposal documentation were not available prior to finalization of this Preliminary Assessment Report and will be provided under separate cover when available.

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SOURCE: USGS 7.5 MINUTE ELIZABETH, NJ QUADRANGLE, 1967; PHOTOREVISED 1982.

ENVIRON

SITE LOCATION MAP
FORMER PSE&G CITY DOCK SUBSTATION

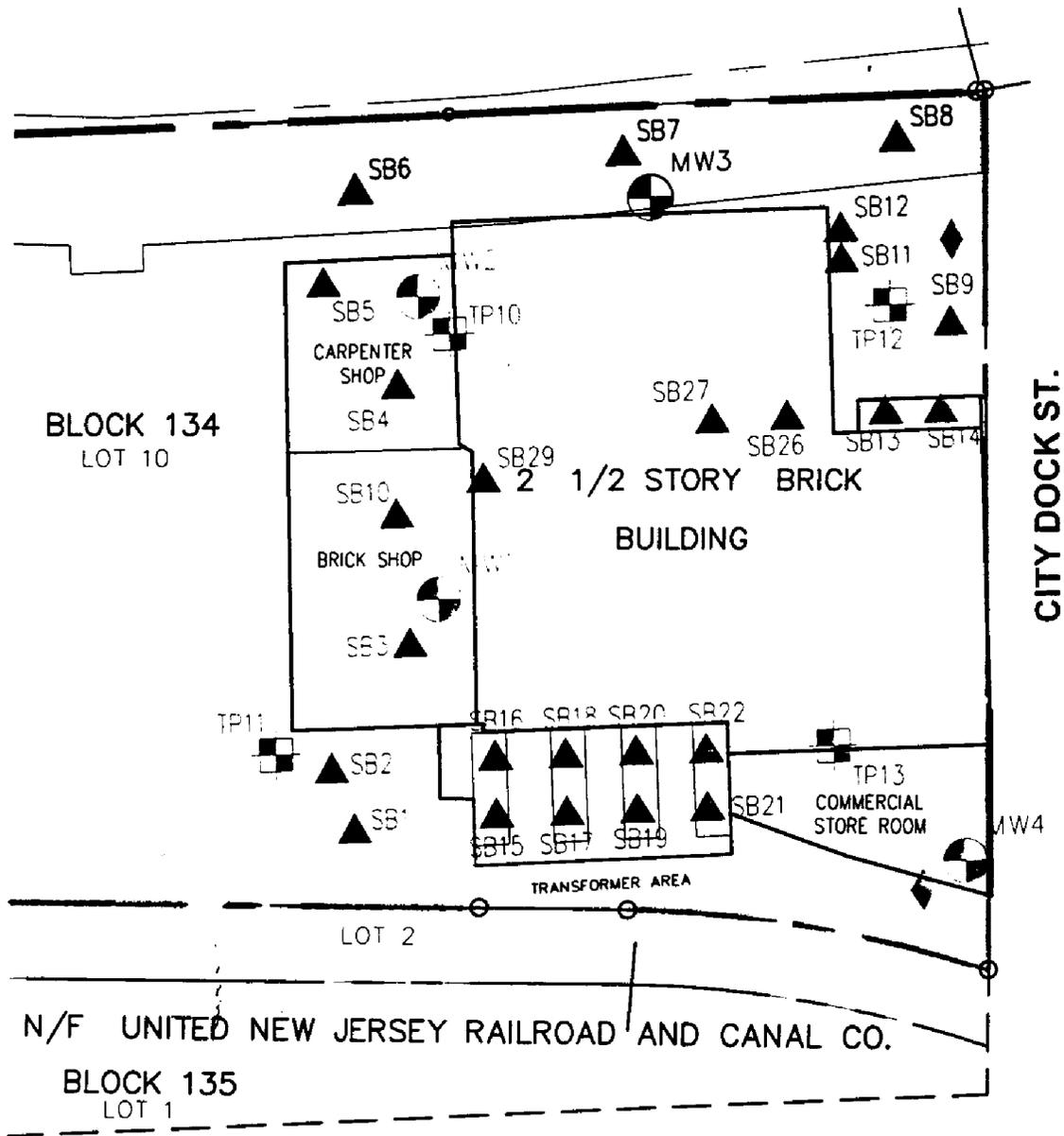
FIGURE
I-1

DRAFTED BY: KPM

DATE: 10/1/02

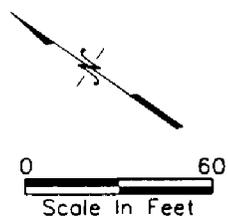
NEWARK, NEW JERSEY

10528AJ03A

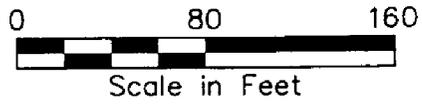
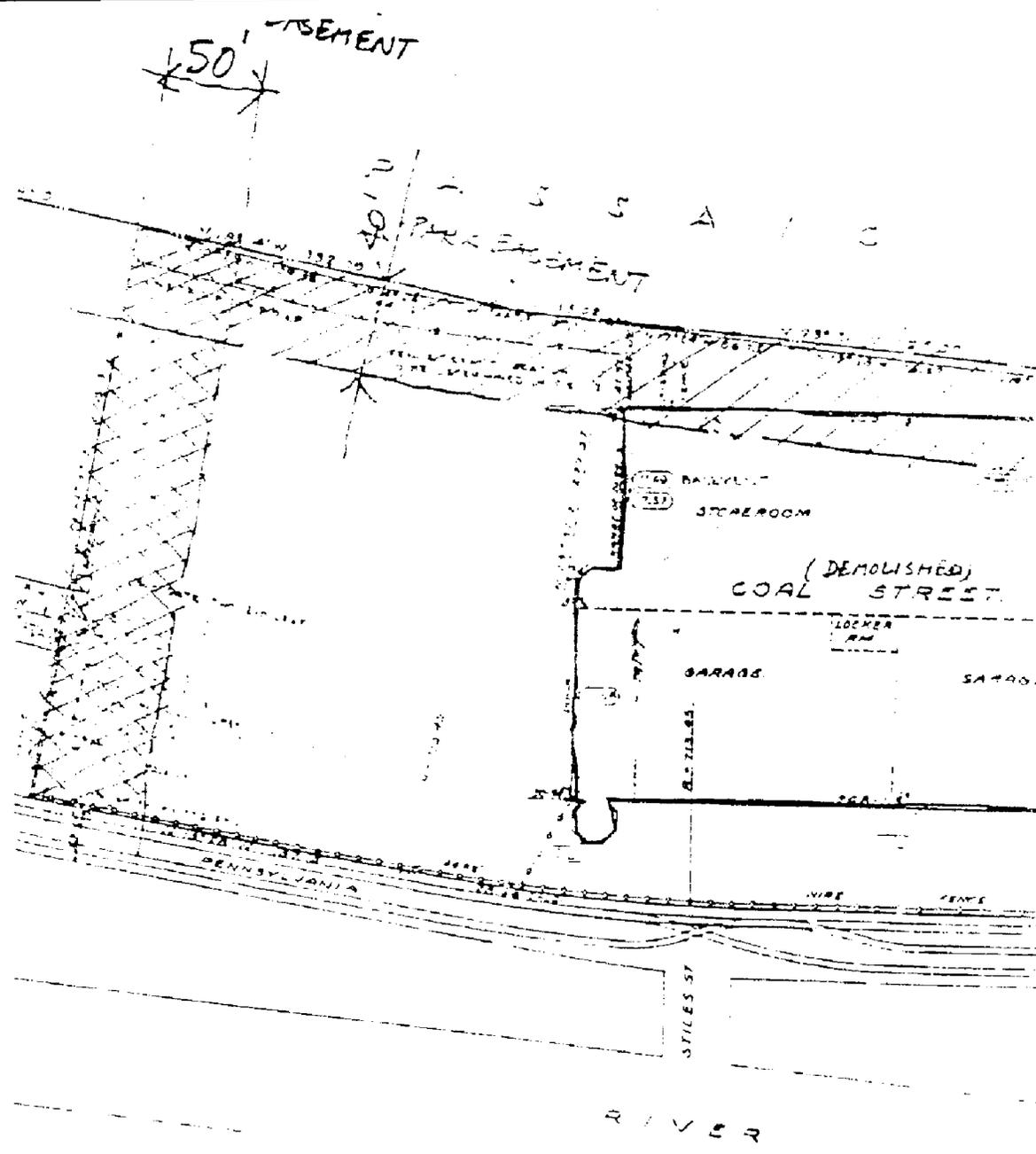


LEGEND

-  TEST PIT
-  SOIL BORING (GEOTECHNICAL)
-  SOIL BORING (ENVIRONMENTAL)
-  MONITORING WELL



ENVIRON	SAMPLE LOCATION MAP CITY DOCK PARCEL NEWARK, NEW JERSEY	FIGURE I-2
	DRAFTED BY: TSP/kpm DATE: 10/1/02	10528AS01

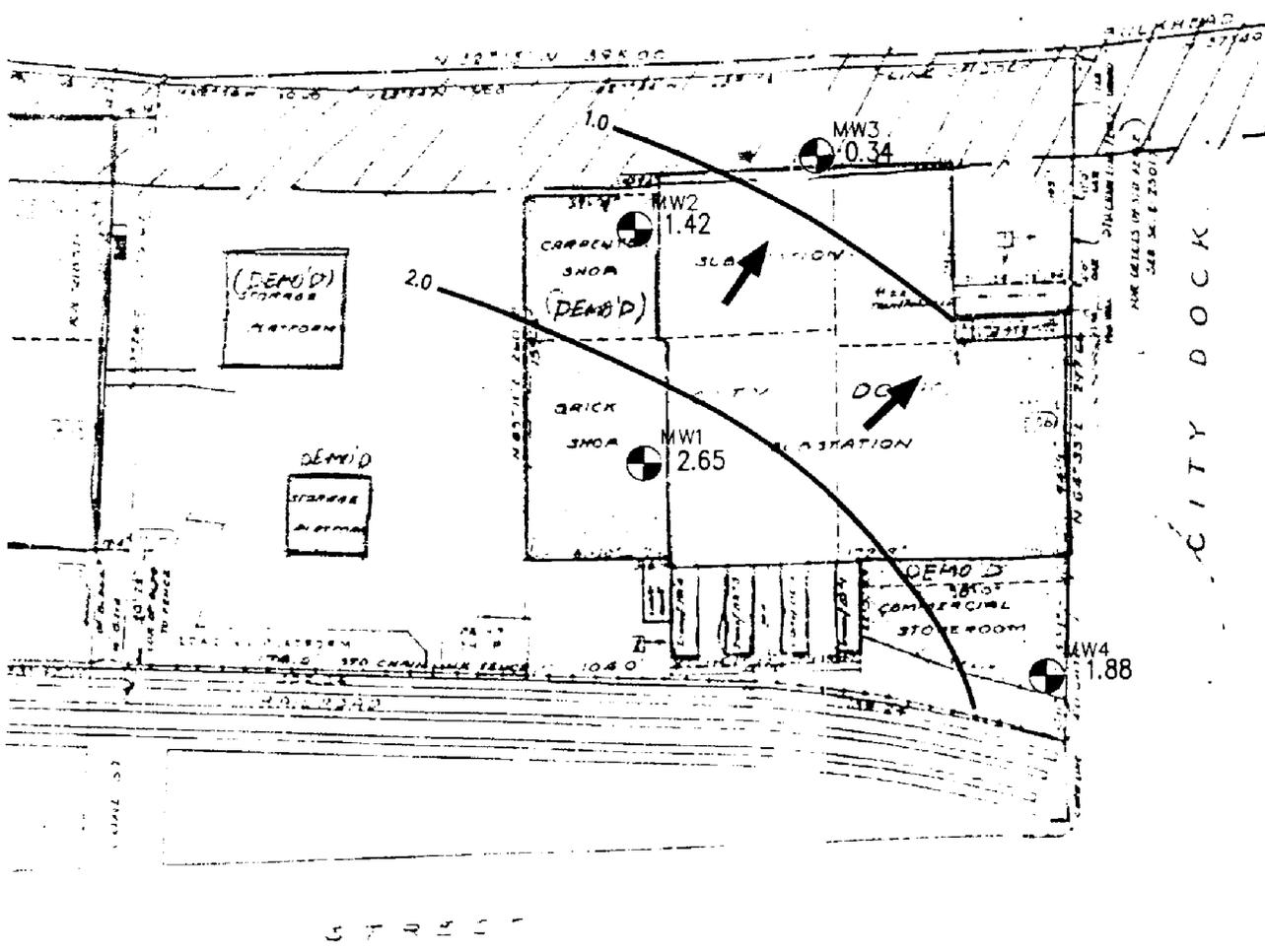


- NOTES:**
- EXPLORATION LOCATIONS MAY BE FIELD ADJUSTED TO AVOID TEMPORARY CONSTRUCTION AND OTHER OBSTRUCTIONS.
 - FOUR ADDITIONAL TEST PITS MAY BE COMPLETED AT COAL STREET PARCEL, IF NEEDED.

GROUND



R I I E D



LEGEND

- MW3 0.34 MONITORING WELL WITH ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 1.0 GROUND WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
- GROUND WATER FLOW DIRECTION

WATER ELEVATION CONTOURS
 CITY DOCK PARCEL
 NEWARK, NEW JERSEY

FIGURE
I-3
 1052BAB02B

TABLE I-1
Sample Information Table
PSE&G: City Dock Parcel
Newark, NJ

Location ID	Sample ID	Matrix	Interval (ft bgs)	Analysis	Comment
SB01	10528A-SB01	Soil	0.5-1	TPHC, PCBs, PP metals, PAHs	
SB02	10528A-SB02	Soil	5.5-6	TPHC, PCBs, PP metals, PAHs	
SB03	10528A-SB03	Soil	4.5-5	TPHC, PCBs, PP metals, PAHs	
SB04	10528A-SB04	Soil	5.5-6	TPHC, PP+40	
SB05	10528A-SB05	Soil	4-4.5	TPHC, PCBs, PP metals, PAHs	
SB05	10528A-SB05-D	Soil	4-4.5	TPHC, PCBs, PP metals, PAHs	Field Duplicate
SB06	10528A-SB06	Soil	8-8.5	TPHC, PP+40	
SB07	10528A-SB07	Soil	5-5.5	TPHC, PCBs, PP metals, PAHs	
SB08	10528A-SB08	Soil	2-2.5	TPHC, PCBs, PP metals, PAHs	
SB09	10528A-SB09	Soil	4.75-5.25	TPHC, PP+40	
SB10	10528A-SB10	Soil	4.5-5	TPHC, PCBs, PP metals, PAHs	
SB11	10528A-SB11	Soil	0.25-0.75	TPHC	
SB12	10528A-SB12	Soil	0.25-0.75	TPHC, VO+10, PAH	
SB13	10528A-SB13	Soil	0.25-0.75	TPHC, PCBs	
SB14	10528A-SB14	Soil	0.25-0.75	TPHC, PCBs	
SB15	10528A-SB15	Soil	0.75-1.25	TPHC, PCBs	
SB16	10528A-SB16	Soil	1-1.5	TPHC, PCBs	
SB17	10528A-SB17	Soil	0.5-1	TPHC, PCBs	
SB17	10528A-SB17-D	Soil	0.5-1	TPHC, PCBs	Field Duplicate
SB18	10528A-SB18	Soil	0.5-1	TPHC, PCBs	
SB19	10528A-SB19	Soil	1.5-2	TPHC, PCBs	
SB20	10528A-SB20	Soil	1-1.5	TPHC, PCBs	
SB21	10528A-SB21	Soil	1.25-1.75	TPHC, PCBs	
SB22	10528A-SB22	Soil	1.25-1.75	TPHC, PCBs	
SB26	10528A-SB26	Soil	0-0.5	TPHC, PCBs, PP metals	
SB27	10528A-SB27	Soil	0-0.5	TPHC, PCBs, PP metals	
SB29	10528A-SB29	Soil	0-0.5	TPHC, PCBs, PP metals	
MW-1	MW1-020808	GW	---	VO+10, PCBs, PP metals, PAHs	
MW-2	MW2-020808	GW	---	VO+10, PCBs, PP metals, PAHs	
MW-2	MW2-020808-D	GW	---	VO+10, PCBs, PP metals, PAHs	Field Duplicate
MW-3	MW3-020808	GW	---	VO+10, PCBs, PP metals, PAHs	
MW-4	MW4-020808	GW	---	VO+10, PCBs, PP metals, PAHs	

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Soil Sampling Results
PSE: City Dock Parcel

Newark, NJ

Location ID	SB-1	SB-2	SB-3	SB-4	SB-5	SB-5	SB-6		
Sample ID	10528A-SB01	10528A-SB02	10528A-SB03	10528A-SB04	10528A-SB05	10528A-SB05-D	10528A-SB06		
Matrix	NRDCSCC	RDCSCC	Soil	Soil	Soil	Soil	Soil		
Depth (MG/KG)	(MG/KG)	(MG/KG)	0.50 - 1.00	5.50 - 6.00	4.50 - 5.00	5.50 - 6.00	4.00 - 4.50	8.00 - 8.50	
Collection Date	7/1/2002	7/1/2002	7/1/2002	7/1/2002	7/1/2002	7/1/2002	7/1/2002		
Comments	Field Duplicate								
Analyte									
Volatile Organic Compounds	NA	NA	NA	ND	NA	NA	ND		
Polynuclear Aromatic Hydrocarbons									
Acenaphthene	10000	3400	0.0863 (0.077)	ND (0.082)	ND (0.081)	ND (0.079)	0.265 (0.21)	0.196 (0.075)	ND (0.23)
Acenaphthylene			0.917 (0.077)	ND (0.082)	ND (0.081)	ND (0.079)	ND (0.21)	0.153 (0.075)	ND (0.23)
Anthracene	10000	10000	1.05 (0.077)	ND (0.082)	ND (0.081)	0.0739 J (0.079)	0.568 (0.21)	0.535 (0.075)	0.0859 J (0.23)
Benzo(a)anthracene	4	0.9	6.43 (0.38)	ND (0.082)	ND (0.081)	0.363 (0.079)	2.16 (0.21)	2.01 (0.075)	0.576 (0.23)
Benzo(a)pyrene	0.66	0.66	6.06 (0.38)	ND (0.082)	ND (0.081)	0.363 (0.079)	2.17 (0.21)	2.1 (0.075)	0.664 (0.23)
Benzo(b)fluoranthene	4	0.9	7.19 (0.38)	ND (0.082)	ND (0.081)	0.482 (0.079)	2.83 (0.21)	2.63 (0.075)	0.882 (0.23)
Benzo(g,h,i)perylene			2.56 (0.077)	ND (0.082)	ND (0.081)	0.21 (0.079)	1.42 (0.21)	1.25 (0.075)	0.567 (0.23)
Benzo(k)fluoranthene	4	0.9	1.81 (0.077)	ND (0.082)	ND (0.081)	0.208 (0.079)	1.24 (0.21)	1.03 (0.075)	0.208 (0.23)
Chrysene	40	9	6.81 (0.38)	ND (0.082)	0.0353 J (0.081)	0.386 (0.079)	2.17 (0.21)	2.05 (0.075)	0.695 (0.23)
Dibenz(a,h)anthracene	0.66	0.66	0.999 (0.077)	ND (0.082)	ND (0.081)	0.0637 J (0.079)	0.397 (0.21)	0.331 (0.075)	0.141 J (0.23)
Fluoranthene	10000	2300	12.7 (0.38)	ND (0.082)	0.088 (0.081)	0.639 (0.079)	4.16 (0.21)	3.56 (0.075)	0.929 (0.23)
Fluorene	10000	2300	0.236 (0.077)	ND (0.082)	ND (0.081)	ND (0.079)	0.222 (0.21)	0.159 (0.075)	ND (0.23)
Indeno(1,2,3-cd)pyrene	4	0.9	3.29 (0.077)	ND (0.082)	ND (0.081)	0.263 (0.079)	1.65 (0.21)	1.5 (0.075)	0.568 (0.23)
Naphthalene	4200	230	0.104 (0.077)	ND (0.082)	ND (0.081)	ND (0.079)	ND (0.21)	0.0566 J (0.075)	ND (0.23)
Phenanthrene			5.67 (0.38)	ND (0.082)	0.0664 J (0.081)	0.305 (0.079)	2.26 (0.21)	2.08 (0.075)	0.431 (0.23)
Pyrene	10000	1700	10.5 (0.38)	ND (0.082)	0.0654 J (0.081)	0.551 (0.079)	3.32 (0.21)	3.11 (0.075)	0.857 (0.23)
Petroleum Distillates									
Petroleum Hydrocarbons	10000	10000	99.1 (29)	ND (30)	ND (30)	37 (29)	177 (28)	124 (29)	51.9 (30)
PCBs									
Aroclor-1254	2 (T)	0.49 (T)	ND (0.02)	ND (0.021)	ND (0.021)	ND (0.02)	ND (0.019)	ND (0.019)	ND (0.02)
Aroclor-1260			ND (0.02)	ND (0.021)	ND (0.021)	ND (0.02)	1.19 (0.038)	0.21 (0.019)	ND (0.02)
Metals									
Antimony	340	14	1.6 (1.2)	ND (1.2)	ND (1.3)	ND (1.2)	1.9 (1.2)	1.6 (1.1)	1.9 (1.2)
Arsenic	20	20	65.6 (1.2)	4.7 (1.2)	2.7 (1.3)	7.5 (1.2)	24.5 (1.2)	10.8 (1.1)	32.8 (1.2)
Beryllium	2	2	ND (0.59)	1.3 (0.61)	ND (0.63)	ND (0.59)	ND (0.58)	ND (0.57)	ND (0.6)
Cadmium	100	39	ND (0.59)	ND (0.61)	ND (0.63)	ND (0.59)	0.81 (0.58)	ND (0.57)	ND (0.6)
Chromium (total)			16.1 (1.2)	14.4 (1.2)	12.7 (1.3)	11.2 (1.2)	25.7 (1.2)	11.9 (1.1)	14.2 (1.2)
Copper	600	600	75.4 (2.9)	91.3 (3.1)	30.9 (3.1)	33.6 (3)	152 (2.9)	52.9 (2.8)	144 (3)
Lead	600	400	51.5 (1.2)	27.4 (1.2)	54 (1.3)	95.4 (1.2)	939 (1.2)	347 (1.1)	757 (1.2)
Mercury	270	14	3.7 (0.38)	0.11 (0.03)	0.21 (0.03)	0.11 (0.03)	2.1 (0.38)	1.2 (0.06)	2 (0.38)
Nickel	2400	250	9.2 (4.7)	32.1 (4.9)	14 (5)	14.3 (4.7)	25.7 (4.6)	14.4 (4.5)	18.4 (4.8)
Selenium	3100	63	4.3 (1.2)	ND (1.2)	1.3 (1.3)	ND (1.2)	ND (1.2)	ND (1.1)	2.2 (1.2)
Silver	4100	110	ND (1.2)	ND (1.2)	ND (1.3)	ND (1.2)	ND (1.2)	ND (1.1)	ND (1.2)
Thallium	2	2	ND (1.2)	ND (1.2)	ND (1.3)	1.2 ND (1.2)	ND (1.2)	ND (1.1)	ND (1.2)
Zinc	1500	1500	100 (2.4)	93.8 (2.5)	50.7 (2.5)	102 (2.4)	565 (2.3)	214 (2.3)	354 (2.4)

Notes:

- All concentrations are presented in mg/kg.
- Only analytes detected in one or more samples are presented.
- Bold-faced concentrations exceed the NJ DEP Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC).
- Underlined concentrations exceed the NJ DEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC).

Abbreviations:

- J -- Estimated
- NA -- Not Analyzed
- ND -- Not Detected
- T -- Soil Clean Up Criteria Expressed as Total PCB
- () -- Detection Limit

1-2
Soil Sampling Results
PSE: City Dock Parcel
Newark, NJ

Location ID	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12	SB-12
Sample ID	10528A-SB07	10528A-SB08	10528A-SB09	10528A-SB10	10528A-SB11	10528A-SB12	10528A-SB12-SS02
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth	5.00 - 5.50	2.00 - 2.50	4.75 - 5.25	4.50 - 5.00	0.25 - 0.75	0.25 - 0.75	0.25 - 0.75
Collection Date	7/1/2002	7/1/2002	7/1/2002	7/1/2002	7/1/2002	7/1/2002	7/24/2002
Comments							Resampled
Analyte							
Volatile Organic Compounds	NA	NA	ND	NA	NA	NA	ND
Polynuclear Aromatic Hydrocarbons							
Acenaphthene	0.685 (0.079)	ND (0.073)	0.0736 J (0.078)	ND (0.079)	NA	NA	0.0707 J (0.074)
Acenaphthylene	0.114 (0.079)	ND (0.073)	0.0639 J (0.078)	ND (0.079)	NA	NA	0.0953 (0.074)
Anthracene	1.43 (0.079)	0.0769 (0.073)	0.201 (0.078)	ND (0.079)	NA	NA	0.271 (0.074)
Benzo(a)anthracene	<u>6.41 (0.39)</u>	0.653 (0.073)	0.726 (0.078)	ND (0.079)	NA	NA	<u>1.29 (0.074)</u>
Benzo(a)pyrene	<u>5.47 (0.39)</u>	0.517 (0.073)	<u>0.685 (0.078)</u>	ND (0.079)	NA	NA	<u>1.45 (0.074)</u>
Benzo(b)fluoranthene	<u>6.83 (0.39)</u>	0.562 (0.073)	0.881 (0.078)	ND (0.079)	NA	NA	<u>1.7 (0.074)</u>
Benzo(g,h,i)perylene	1.84 (0.079)	0.231 (0.073)	0.304 (0.078)	ND (0.079)	NA	NA	1.16 (0.074)
Benzo(k)fluoranthene	<u>2.05 (0.079)</u>	0.207 (0.073)	0.33 (0.078)	ND (0.079)	NA	NA	0.567 (0.074)
Chrysene	6.01 (0.39)	0.661 (0.073)	0.747 (0.078)	ND (0.079)	NA	NA	1.42 (0.074)
Dibenz(a,h)anthracene	0.644 (0.079)	0.0779 (0.073)	0.107 (0.078)	ND (0.079)	NA	NA	0.317 (0.074)
Fluoranthene	11.9 (0.39)	0.741 (0.073)	1.38 (0.078)	ND (0.079)	NA	NA	2.23 (0.074)
Fluorene	0.588 (0.079)	ND (0.073)	0.0647 J (0.078)	ND (0.079)	NA	NA	0.0653 J (0.074)
Indeno(1,2,3-cd)pyrene	<u>2.5 (0.079)</u>	0.254 (0.073)	0.416 (0.078)	ND (0.079)	NA	NA	<u>1.01 (0.074)</u>
Naphthalene	0.178 (0.079)	ND (0.073)	ND (0.078)	ND (0.079)	NA	NA	ND (0.074)
Phenanthrene	7.32 (0.39)	0.27 (0.073)	0.801 (0.078)	ND (0.079)	NA	NA	1.22 (0.074)
Pyrene	9.12 (0.39)	1.09 (0.073)	1.14 (0.078)	ND (0.079)	NA	NA	2.5 (0.074)
Petroleum Distillates							
Petroleum Hydrocarbons	95.1 (30)	51.8 (28)	ND (30)	ND (29)	144 (31)	268 (150)	NA
PCBs							
Aroclor-1254	ND (0.02)	ND (0.018)	ND (0.02)	ND (0.02)	NA	NA	NA
Aroclor-1260	0.158 (0.02)	ND (0.018)	ND (0.02)	ND (0.02)	NA	NA	NA
Metals							
Antimony	3.2 (1.2)	ND (1.1)	ND (1.2)	ND (1.2)	NA	NA	NA
Arsenic	11 (1.2)	2.3 (1.1)	6 (1.2)	3 (1.2)	NA	NA	NA
Beryllium	ND (0.59)	ND (0.54)	ND (0.58)	0.63 (0.6)	NA	NA	NA
Cadmium	ND (0.59)	ND (0.54)	ND (0.58)	ND (0.6)	NA	NA	NA
Chromium (total)	14.1 (1.2)	13.4 (1.1)	17.3 (1.2)	13.3 (1.2)	NA	NA	NA
Copper	87 (3)	24.5 (2.7)	138 (2.9)	18.7 (3)	NA	NA	NA
Lead	227 (1.2)	82 (1.1)	252 (1.2)	189 (1.2)	NA	NA	NA
Mercury	7.9 (0.76)	0.23 (0.03)	0.53 (0.03)	0.05 (0.03)	NA	NA	NA
Nickel	16.4 (4.7)	14.4 (4.3)	15.7 (4.7)	11.6 (4.8)	NA	NA	NA
Selenium	ND (1.2)	ND (1.1)	ND (1.2)	ND (1.2)	NA	NA	NA
Silver	ND (1.2)	ND (1.1)	ND (1.2)	ND (1.2)	NA	NA	NA
Thallium	ND (1.2)	ND (1.1)	ND (1.2)	ND (1.2)	NA	NA	NA
Zinc	165 (2.4)	49.5 (2.2)	128 (2.3)	32.9 (2.4)	NA	NA	NA

Notes:

- All concentrations are presented in mg/kg
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- Bold-faced** concentrations exceed the NJ DEP Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC)
- Underlined concentrations exceed the NJ DEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC)

Abbreviations:

- J -- Estimated
- NA -- Not Analyzed
- ND -- Not Detected
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- () -- Detection Limit

1 1-2
Soil Sampling Results
PSE: City Dock Parcel
Newark, NJ

Location ID	SB-13	SB-14	SB-15	SB-16	SB-17	SB-17	SB-18
Sample ID	10528A-SB13	10528A-SB14	10528A-SB15	10528A-SB16	10528A-SB17	10528A-SB17-D	10528A-SB18
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth	0.50 - 1.00	0.50 - 1.00	0.75 - 1.25	1.00 - 1.50	0.50 - 1.00	0.50 - 1.00	0.50 - 1.00
Collection Date	7/1/2002	7/1/2002	7/1/2002	7/2/2002	7/2/2002	7/2/2002	7/2/2002
Comments						Field Duplicate	
Analyte							
Volatile Organic Compounds	NA	NA	NA	NA	NA	NA	NA
Polynuclear Aromatic Hydrocarbons							
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Petroleum Distillates							
Petroleum Hydrocarbons	94900 (19000)	44800 (8200)	77400 (15000)	71800 (15000)	88400 (19000)	58100 (19000)	114000 (17000)
PCBs							
Aroclor-1254	ND (0.072)	ND (0.022)	ND (0.3)	ND (0.058)	<u>0.84 (0.076)</u>	<u>0.663 (0.074)</u>	ND (0.07)
Aroclor-1260	<u>0.984 (0.072)</u>	0.211 (0.022)	1.04 (0.3)	<u>14.4 (0.29)</u>	ND (0.076)	ND (0.074)	<u>0.661 (0.07)</u>
Metals							
Antimony	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Chromium (total)	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA

Notes:

- All concentrations are presented in mg/kg
- Only analytes detected in one or more samples are presented.
- Bold-faced concentrations exceed the NJ DEP Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC).
- Underlined concentrations exceed the NJ DEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC).

Abbreviations:

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- NA -- Not Analyzed
- ND -- Not Detected
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- () -- Detection Limit

1-2
Soil Sampling Results
PSE: City Dock Parcel
Newark, NJ

Location ID	SB-19	SB-20	SB-21	SB-22	SB-26	SB-27	SB-29
Sample ID	10528A-SB19	10528A-SB20	10528A-SB21	10528A-SB22	10528A-SB26	10528A-SB27	10528A-SB29
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth	1.50 - 2.00	1.00 - 1.50	1.25 - 1.75	1.25 - 1.75	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Collection Date	7/2/2002	7/2/2002	7/2/2002	7/2/2002	7/2/2002	7/2/2002	7/2/2002
Comments							
Analyte							
Volatile Organic Compounds	NA	NA	NA	NA	NA	NA	NA
Polynuclear Aromatic Hydrocarbons							
Acenaphthene	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA
Petroleum Distillates							
Petroleum Hydrocarbons	63700 (24000)	99700 (22000)	204000 (40000)	144000 (42000)	238 (170)	262 (180)	3740 (2000)
PCBs							
Aroclor-1254	<u>0.748 (0.091)</u>	ND (0.085)	ND (0.078)	<u>1.26 (0.086)</u>	ND (0.022)	ND (0.024)	ND (0.049)
Aroclor-1260	0.437 (0.091)	<u>0.702 (0.085)</u>	<u>1.19 (0.078)</u>	ND (0.086)	0.0576 (0.022)	0.0735 (0.024)	<u>1.09 (0.049)</u>
Metals							
Antimony	NA	NA	NA	NA	ND (5.3)	8.3 (1.4)	<u>20 (3)</u>
Arsenic	NA	NA	NA	NA	<u>21.5 (1.3)</u>	<u>124 (1.4)</u>	<u>32.3 (3)</u>
Beryllium	NA	NA	NA	NA	ND (0.66)	ND (0.71)	ND (1.5)
Cadmium	NA	NA	NA	NA	4 (0.66)	2.2 (0.71)	32.3 (1.5)
Chromium (total)	NA	NA	NA	NA	55.5 (1.3)	25.4 (1.4)	218 (3)
Copper	NA	NA	NA	NA	<u>771 (6.6)</u>	<u>1110 (3.6)</u>	<u>1050 (7.5)</u>
Lead	NA	NA	NA	NA	<u>2860 (1.3)</u>	<u>13900 (4.3)</u>	<u>2430 (3)</u>
Mercury	NA	NA	NA	NA	7.6 (0.83)	4.3 (0.46)	<u>16.4 (1.8)</u>
Nickel	NA	NA	NA	NA	34.5 (5.3)	34 (5.7)	100 (12)
Selenium	NA	NA	NA	NA	2.6 (2.6)	5.5 (1.4)	13.7 (3)
Silver	NA	NA	NA	NA	ND (1.3)	ND (1.4)	7.1 (3)
Thallium	NA	NA	NA	NA	ND (5.3)	ND (1.4)	ND (3)
Zinc	NA	NA	NA	NA	962 (5.3)	464 (2.9)	<u>2960 (6)</u>

Notes:

- All concentrations are presented in mg/kg
- Only analytes detected in one or more samples are presented
- Bold-faced concentrations exceed the NJ DEP Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC).
- Underlined concentrations exceed the NJ DEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC).

Abbreviations:

- J -- Estimated
- NA -- Not Analyzed
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- () -- Detection Limit

TABLE I-3
Ground Water Elevations - August 2002
PSE&G: City Dock Parcel
Newark, NJ

Well #	Surveyed Top of Casing Elevation (ft*)	Depth to Water (feet below TOC) (ft)	Ground Water Elevation (ft*)
-			
MW-1	7.54	4.89	2.65
MW-2	6.86	5.44	1.42
MW-3	7.44	7.10	0.34
MW-4	10.25	8.37	1.88

Note:

* - Elevations relative to NAVD 88 Datum.

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TABLE I-4
Ground Water Sampling Results
PSE: City Dock Parcel
Newark, NJ

Location ID	NJ Class II A	MW-1	MW-2	MW-2	MW-3	MW-4
Sample ID	GW Criteria	MW1-020808	MW2-020808	MW2-020808D	MW3-020808	MW4-020808
Matrix	(ug/L)	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Collection Date		8/8/2002	8/8/2002	8/8/2002	8/8/2002	8/8/2002
Comments				Field Duplicate		
Volatile Organic Compounds						
Chlorobenzene	50	ND (2)	1.4 J (2)	1.5 J (2)	ND (2)	ND (2)
1,1-Dichloroethane	50	2.2 J (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	1	ND (1)	ND (1)	ND (1)	1.2 (1)	ND (1)
1,1,1-Trichloroethane	30	0.63 J (5)	ND (5)	ND (5)	ND (5)	ND (5)
Trichloroethene	1	ND (1)	ND (1)	ND (1)	ND (1)	0.32 J (1)
Polynuclear Aromatic Hydrocarbons						
Acenaphthene	400	ND (2)	ND (2)	ND (2)	ND (2)	0.78 J (2)
Fluoranthene	300	ND (2)	ND (2)	ND (2)	ND (2)	0.54 J (2)
Naphthalene	300	ND (2)	ND (2)	ND (2)	ND (2)	0.71 J (2)
Phenanthrene	100	ND (2)	ND (2)	ND (2)	ND (2)	1 J (2)
Pyrene	200	ND (2)	ND (2)	ND (2)	ND (2)	0.76 J (2)
PCBs						
		ND	ND	ND	ND	ND
Metals						
Arsenic	8	ND (5)	ND (5)	ND (5)	21.8 (5)	ND (5)

Notes:

- 1 All concentrations are presented in ug/L.
- 2 Only analytes detected in one or more samples are presented.
- 3 Bold-faced concentrations exceed the NJ Class IIA GW Criteria.

Abbreviations:

- J -- Estimated
- ND -- Not Detected.
- () -- Detection Limit.

TABLE I-5
Soil Sampling QA/QC Results
PSE: City Dock Parcel
Newark, NJ

Location ID	QAQC	QAQC
Sample ID	10528A-TB	10528A-TB-020724
Matrix	BLANK METHANOL	BLANK METHANOL
Collection Date	7/1/2002	7/24/2002
Comments	TRIP BLANK	TRIP BLANK
Volatile Organic Compounds	ND	ND

Notes:

1. All concentrations are presented in ug/kg.
2. Only analytes detected in one or more samples are presented.

Abbreviations:

- ND -- Not Detected.
 () -- Detection Limit.

TABLE I-6
Ground Water Sampling QA/QC Results
PSE: City Dock Parcel
Newark, NJ

Location ID	QA/QC	QA/QC
Sample ID	TB-020808	WB-020808
Matrix	Blank Water	Blank Water
Collection Date	8/8/2002	8/8/2002
Comments	Trip Blank	Wash Blank
Volatile Organic Compounds	ND	ND
Polynuclear Aromatic Hydrocarbons	NA	ND
PCBs	NA	ND
Metals	NA	ND

Notes:

1. All concentrations are presented in ug/L.
2. Only analytes detected in one or more samples are presented.

Abbreviations:

NA -- Not Analyzed.
 ND -- Not Detected.