DRAFT SITE INVESTIGATION REPORT
1700-1712 AND 1702-1716 MCCARTER HIGHWAY
BLOCK 614, LOTS 63 AND 64
CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY
NJ SPILL #91-10-24-1109-21
NJ RELEASE #90-11-08-1713
CERCLIS #0203096
USPEA #NJD000729780
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1.0 INTRODUCTION

The Brick City Development Corp (the "Client") retained PMK Group, Inc., a business unit of Birdsall Services Group, Inc. (BSG-PMK), to provide environmental consulting services associated with the completion of an environmental site investigation (SI) at a parcel identified as Block 614, Lots 63 and 64, located at 1700-1712 and 1702-1716 McCarter Highway in the City of Newark, Essex County, New Jersey (herein designated as "the Site").

The SI activities were conducted in accordance with BSG-PMK's Proposal, dated September 30, 2009, and the findings and recommendations presented in the Preliminary Assessment Report (PAR) dated May 2009, prepared by Weston Solutions (Weston) of Edison, New Jersey for the Site.

The location of the Site is presented on the Site Location Map, Plate 1 (United States Geological Survey (USGS) – Orange, NJ Topographic Quadrangle, 7.5 minute series). In addition, a Site plan indicating pertinent Site features associated with previously identified Areas of Concerns (AOCs) is presented on Plate 2.

2.0 PROJECT BACKGROUND

2.1 PRELIMINARY ASSESSMENT REPORT (PAR) SUMMARY

The Client retained Weston to complete a PAR for the identified Site to identify existing and/or potential AOC's. The PAR, dated May 2009, included a chronological Site history narrating the Site development (Appendix 1), and a summary of the AOC's including a Site map (Appendix 2).

In total Weston identified eleven (11) AOC's at the Site:

- AOC A-1 – Above Ground Storage Tanks and Associated Piping
- AOC A-2 – Underground Storage tanks and Associated Piping
- AOC A-3 – Piping, Above Ground and Below Ground Pumping Stations, sumps and Pits
- AOC B-1 – Storage Pads Including Drum and/or Waste Storage
- AOC C-1 – Floor Drains, trenches and Piping and Sumps
- AOC D-1 – Waste Piles
- AOC D-2 – Open Pipe Discharges
- AOC E-1 – Electrical Transformers & Capacitors
- AOC E-1A – Discolored or Spill Areas
- AOC F-1 – Loading or Transfer Areas
- AOC G-1 – Freight Elevators

2.2 SITE INVESTIGATION STRATEGY AND PROPERTY REDEVELOPMENT

Prior to the initiation of the SI operations, the Client informed BSG-PMK that a preliminary redevelopment strategy was formulated for the Site which included the demolition of the two (2) existing structures, and the improvement of the Site including the construction of one (1) or more new structures. As part of these plans demolition operations, subsurface excavation activities, and site wide improvement/construction operations will be completed.

Given the proposed redevelopment operations, and because of the long industrial manufacturing history of the Site, it was reasonably assumed that the SI would reveal environmental impacts above the respective media specific (e.g. soil, groundwater) New Jersey Department of Environmental Protection (NJDEP) criteria. Because of these considerations, the SI strategy was implemented to provide a presence/absence determination of environmental impacts with an expectation that an extensive Remedial Investigation (RI) would be required to delineate and define the Site conditions prior to the implementation of Remedial Action (RA) or redevelopment operations.

Utilizing this SI investigation strategy, and the assumption that an extensive RI/RA would be required prior to the planned redevelopment operations, seven (7) of the eleven (11) AOC's identified in the PAR dated May 2009 were investigated. The following table identifies which AOC's were investigated as part of the SI, and the remaining AOC's for which supplemental investigation operations are required.

AOC Number	AOC Description	SI Investigation Status	AOC Investigation Notes
AOC A-1	Above Ground Storage Tanks and Associated Piping	Yes	
AOC A-2	Underground Storage tanks and Associated Piping	Yes	
AOC A-3	Piping, Above Ground and Below Ground Pumping Stations, sumps and Pits	No	Interior structures to be addressed during demolition.
AOC B-1	Storage Pads Including Drum and/or Waste Storage	Yes	
AOC C-1	Floor Drains, trenches and Piping and Sumps	Yes	
AOC D-1	Waste Piles	No	To be addressed during RI, and redevelopment.
AOC D-2	Open Pipe Discharges	No	To be addressed during RI, and redevelopment.
AOC E-1	Electrical Transformers & Capacitors	Yes	
AOC E-1A	Discolored or Spill Areas	Yes	
AOC F-1	Loading or Transfer Areas	Yes	
AOC G-1	Freight Elevators	No	Interior structures to be addressed during demolition.

3.0 ENVIRONMENTAL SETTING

3.1 LAND USE

The Site comprises approximately 1.48 acres and is located within an industrial area, and is currently vacant. Available documentation indicated that the Site was most recently owned by Industrial Development Corporation and utilized for warehousing until 1993, after which time the City of Newark obtained the property via foreclosure actions. The Site's historical narrative contained in the PAR identifies that the Site was historically utilized for the manufacture of paints and varnishes, and is a small part of what was formerly a much larger multi Lot facility owned and operated by Pittsburgh Paint Glass Co. (PPG).

Two (2) multi-story concrete industrial buildings are present at the Site including a five (5) story structure designated as Building #12 (North) on Lot 64, and a three (3) story structure designated as Building #7 (South) on Lot 63. Appendix 3 contains a historic facility map identifying the location and size of the two (2) structures of interest. The portion of the Lot that is not improved by structures has a surface covered by gravel and/or exposed soil.

Observations noted during the SI activities indicate that adjacent Lots consist of various independent industrial facilities. The Site is bounded on the west by the McCarter Highway, and on the east by the Passaic River.

3.2 SITE TOPOGRAPHY

A review of the USGS Topographic Map – Orange Quadrangle, New Jersey Map (7.5 minute series), dated 1955 (photo-revised 1981) indicates that the Site topography is relatively flat. Ground surface elevation at the Site is approximately 20 feet above mean sea level (msl). The nearest surface water body is the Passaic River, located adjacent to the east of the Site.

The topography of the Site and adjacent areas is presented on a portion of the USGS Topographic Map (7.5 minute series) – Orange Quadrangle, New Jersey, dated 1955 (photo-revised 1981), presented as Plate 1. A site plan indicating pertinent site features is presented as Plate 2.

3.3 GEOLOGY AND HYDROGEOLOGY

3.3.1 Regional Geology

The Bedrock Geologic Map of Northern New Jersey (1996) indicates the Site is underlain by sandstone strata of the Lower Jurassic to Upper Triassic Period Passaic Formation (JT_Rps). As indicated on the map, this formation is described as follows:

> *"Sandstone (JTrps) is interbedded grayish-red to brownish-red, medium- to fine-grained, medium-to thick bedded sandstone and brownish- to purplish-red, coarse-grained siltstone; unit planar to ripple cross laminated, fissile, locally calcareous, contains*

desiccation cracks and root casts. Upward-fining cycles are 1.8 to 4.6 m (6-15 ft) thick. Sandstone beds are coarser and thicker near conglomerate units (JT_Rpcq and, JT_Rpcl). *Maximum thickness above 1,100 m (3,610 ft).”*

3.3.2 Regional Soil

According to the Web Soil Survey of Essex County (2007) (http://websoilsurvey.nrcs.usda.gov), published by the United States Department of Agriculture – Natural Resources Conservation Service, the Site is underlain by as Udorthents, Boonton substratum and similar soils (*UddunB*):

The Udorthents, Boonton substratum and similar soils consists of a surface covered by loam, and underlain by sandy loam. The parent material of the *UddunB* is loamy material transported by human activity. Permeability of the Udorthents, Boonton substratum is moderately rapid to. The available water capacity is high. The apparent seasonal high water table is greater than 6.0 feet below ground surface (bsg).

3.3.3 Historic Fill

According to the New Jersey Geological Survey Map, Historic Fill of Orange Quadrangle-Historic Fill Map –HFM41 (Appendix 4), the Site is located in the identified historic fill area.

3.3.4 Site Specific Soils

In general the soil profile typically included disturbed conditions and fill material from the ground surface to depths of approximately 8.0 – 10.0 feet bsg. Below the 8.0 - 10.0 foot interval the materials included sands, silts, and gravels typical of natural deposits associated with neighboring Passaic River.

The Site specific soils encountered during the completion of the SI operations were described in accordance with the Unified Soil Classification System (Appendix 5), and are recorded in the soil boring logs included as Appendix 6. Stratigraphic cross sections of the Site are included as Appendix 7.

4.0 SITE INVESTIGATION

The Site Investigation presented herein was completed by BSG-PMK pursuant to the proposal dated September 30, 2009, the recommendations included in the PAR dated May 2009, and the redevelopment strategy assembled for the Site.

The SI was conducted on-Site between August and October 2009 and included a Geophysical Survey, soil sampling, shallow groundwater sampling, from Building #7 (Block 614, Lot 63) and Building #12 (North) on Lot 64; and basement water sampling from within Building #7 (Block 614, Lot 63).

The following sections briefly summarize the investigation procedures, sampling procedures, sampling frequency, analytical protocols, and quality assurance/quality control (QA/QC) procedures that were implemented to complete the SI.

4.1 GEOPHYSICAL SURVEY (HAGER-RICHTER GEOSCIENCES, INC.)

On August 19, 2009, a representative of BSG-PMK were present at the Site to observe Hager-Richter Geoscience, Inc. of Fords, New Jersey conducted a geophysical survey on the open and accessible portions of the Site along the exterior of the existing structures.

The objective of the survey was to search for, and detected if possible, underground storage tanks (UST), and/or subsurface structures within the accessible portions of the specified area of interest. The geophysical survey was conducted using three (3) complementary geophysical methods: 1) time domain electromagnetic induction (EM61), 2) ground penetrating radar (GPR), and 3) precision utility location (PUL).

Based on the geophysical survey the following findings were detected:

- Nine (9) possible USTs;
- A reinforced concrete pad and a buried unreinforced concrete pad;
- Segments of possible utilities, areas of buried metal, scattered small unidentified buried objects were detected; and
- Four (4) possible buried manholes.

Appendix 8 contains the geophysical report generated by Hager Richter Geosciences, Inc, dated September 2009.

4.2 MEDIA SAMPLING PROCEDURES

The following paragraphs describe the general field procedures that were implemented during the soil, groundwater and basement water sampling discussed in this report. The field work was implemented in accordance with the requirements of a Site-specific Health and Safety Plan (HASP) prepared to comply with the requirements of Code of Federal Regulations (CFR) 1910.120. All media samples collected as part of the SI were analyzed by Accutest laboratories (Accutest) of Dayton, New Jersey (New Jersey Laboratory Certification No. 12129).

4.2.1 Soil Sampling Procedures

The soil samples were collected using dedicated acetate core sampling equipment (e.g., truck-mounted Geoprobe®) in accordance with the standard sampling protocol as detailed in the NJDEP Field Sampling Procedures Manual (FSPM; August, 2005).

The maximum depth of the borings was twenty (20.0) feet bsg. Volatile organic sample fractions were collected in accordance with the NJDEP Methodology for Field

Extraction/Preservation of Soil Samples with Methanol for Volatile Organic Compounds (February 1997), and/or Encore® soil sampling methodology; and the NJDEP FSPM. All field work was performed under the technical supervision of a BSG-PMK field scientist/engineer.

A BSG-PMK representative positioned the borings in the field, and maintained a continuous log of the explorations. Soil samples, suitable for identification purposes, were obtained from each boring at regularly spaced intervals. Textural descriptions of the encountered materials were recorded in accordance with the Unified Soil Classification System (Appendix 5). During drilling operations, the extracted subsurface material was screened using a portable photo ionization detector (PID) in accordance with the NJDEP FSPM.

4.2.2 Groundwater Sampling Procedures

The groundwater samples were collected utilizing Temporary Groundwater Well Sampling Point (TGWSP) technique in accordance with Alternate Ground Water Sampling Techniques Guide (June 1994), and sampled via the NJDEP FSPM. Prior to sampling, the depth to groundwater was recorded using an electronic water level indicator. Each TGWSP was developed using a peristaltic pump, equipped with dedicated disposable tubing, so approximately one (1) – three (3) well volumes were extracted. Thereafter, samples were collected utilizing a disposable, factory sealed bailer. Samples were collected in laboratory prepared sample jars in accordance with the NJDEP FSPM. The groundwater samples were submitted to Accutest for subsequent chemical analyses under standard chain of custody procedures to track the samples.

4.2.3 Basement Water Sampling Procedures

Water samples retrieved from the basement of Building #7 were collected utilizing a disposable, factory sealed bailer. Samples were collected in laboratory prepared sample jars in accordance with the NJDEP FSPM. The groundwater samples were submitted to Accutest for subsequent chemical analyses under standard chain of custody procedures to track the samples.

4.3 SAMPLING SUMMARY

The following text provides a brief narrative as to the basis for the identified environmental investigation operations. The SI was focused on confirming and/or delineating the known impacts at the previously identified AOCs on Site. Table 1 provides a concise presentation of sample identification, sample rationale, sampling depth, and the analytical parameters.

4.3.1 Soil Sampling

The soil sampling operations were completed to provide a presence/absence determination of environmental impacts, with an expectation that an extensive Remedial Investigation (RI) would be required to delineate and define the Site conditions at a later date. Given this expectation, a total of seventeen (17) soils borings were installed across the Site, and a total of twenty-three (23) soil samples were collected. The soil samples focused the AOC's previously identified in the PAR, and the historic fill identified to underlie the Site.

All soil samples were submitted for TPH and PP+40, except for Trans-1, which was submitted only for polychlorinated biphenyls (PCBs) in order to investigate the on-Site transformer, previously identified as AOC #E-1 and AOC #E-1A.

It should be noted that soil samples UST-DG/HF-1R, HF-2R, HF-3R, and TT-1R were collected at the same boring locations and depths as samples UST-DG/HF-1, HF-2, HF-3, and TT-1, respectively and submitted for Volatile Organic Compounds Analysis plus a Forward Library Search for 10 Additional Non-targeted Compounds (VO+10).

Soil sample locations are depicted on Plate 3. Sampling summary includes the soil sample identification, associated AOC, sampling depths, and the analytical parameters are presented in Table 1.

4.3.2 Groundwater Sampling

Two (2) groundwater samples were collected during the SI activities to investigate the previously identified AOCs on Site. The groundwater samples were collected from the TGWSPs which were installed bias to the highest field screening values.

TW-1 was advanced in Lot 64 at the HF-1/HF-2 location, immediately down gradient from AOC #A-2 (Underground Storage Tanks: USTs) area. The total depth of the TGWSP was 12.0 feet bsg, while groundwater was encountered at approximately 5.0 feet bsg. It should be noted that due to the field observation of the sample quality, and the proximity to the former UST area, the sample from this area was submitted for supplemental Petroleum Fingerprint analysis (sample name TW-1).

TW-2 was advanced in Lot 63 south of the three-storied building (Building #7), and was proximal to AOC F-1 Loading or Transfer Area. The total depth of the TGWSP was 15.0 feet bsg, while groundwater was encountered at approximately 8.0 feet bsg.

While completing the TGWSP installation and sampling operations, fluctuations of the groundwater elevation were observed. It is possible that the shallow groundwater proximal to the TGWSP locations may be tidally influenced. The tide charts for the Passaic River are included as Appendix 9, and confirm that this reach of the river is tidally influenced.

Temporary groundwater sample locations are depicted on Plate 3. Sampling summary includes the soil sample identification, associated AOC, sampling depths, and the analytical parameters are presented in Table 1.

4.3.3 Basement Water Sampling

Two (2) holes were identified on either side of the basement structure (east/west), and penetrated the full thickness of the concrete first floor to provide access into the basement. Each hole had an access ladder suggesting the basement(s) were of substantial size, however the geometry of

the basement could not be confirmed because they were full of water. Therefore on September 3, 2009, two (2) basement water samples (BW-1 and BW-2) were collected, one (1) from each of the access holes.

The basement water sample locations are depicted on Plate 3. Sampling summary includes the sample identification, associated AOC, sampling depths, and the analytical parameters are presented in Table 1. It should be noted that due to the field observation of the sample quality, the sample from BW-2 was submitted for supplemental Petroleum Fingerprint analysis (sample name GC-1).

4.3.4 Quality Assurance/Quality Control (QA/QC) Sampling

A Quality Assurance/ Quality Control (QA/QC) program consisting of collection of trip and field blank samples was conducted to assess the potential cross-contamination that may be encountered during sample collection and/or shipment of the samples to the analytical laboratory.

The field blank samples were submitted for various analytical parameters analyses that corresponded with the appropriate sampling parameters. The trip blank samples were submitted for VO+10 analysis. The blank samples were submitted to Accutest for such analyses.

4.4 SAMPLING RESULTS

4.4.1 NJDEP Media Specific Assessment Criteria

For each of the sampled media, soil and groundwater, the results were compared against the most recent NJDEP criteria.

For the soil media the NJDEP Soil Remediation Standards (SRS) were utilized to assess the laboratory analytical sampling results. A copy of the SRS is included in Appendix 10.

For the groundwater and basement water media the NJDEP Groundwater Quality Criteria (GQC) were utilized to assess the laboratory analytical sampling results. A copy of the GQC is included in Appendix 11.

4.4.2 Soil Sampling Results

A total of twenty-three (23) soil samples were collected during the SI activities to investigate the previously identified AOCs and historic fill materials on Site.

The analytical results of the soil samples indicated exceedances for TPH, volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), metals, and PCBs above the most stringent NJDEP Soil Remediation Standards (SRS) and/or the NJDEP Impact to Groundwater (IGW) criteria. The following table presents the sample name, depth, and compound category for its exceedances.

			NJDEP Residential Direct Contact Soil Remediation Standard (RDC SRS)					NJDEP Impact to GW Criteria
			VOC	SVOC	Metals	TPHC	PCB	(IGW)
PMK SAMPLE ID	**SAMPLE RATIONALE**	**SAMPLING DEPTH* (FT)**						
UST-DG/HF-1	HFI, AOC #A-2, #B-1, #D-2	6.5-7.0	x	x	x	x		x
UST-DG/HF-1R	HFI, AOC #A-2, #B-1, #D-2	6.5-7.0	x					
HF-2	HFI	11.0-12.5	x		x			x
HF-2R	HFI	11.0-12.5	x					x
TRANS-1	AOC #E-1, #E-1A	0.5-1.0						
HF-3	HFI	7.0-7.5	x	x	x			x
HF-3R	HFI	7.0-7.5	x					
TT-1	AOC #E-1, #E-1A, #A-3	1.5-2.0	x		x			x
TT-1R	AOC #E-1, #E-1A, #A-3	1.5-2.0						
LD-1	AOC #F-1	1.5-2.0		x	x			x
HF-4	HFI	11.0-11.5			x			x
LD-2	AOC #F-1	1.5-2.0			x			x
HF-5	HFI	6.5-7.0	x		x	x		x
LD-3	AOC #F-1, #C-1	1.5-2.0		x	x		x	x
LD-1A	AOC #F-1	4.5-5.0	x	x	x		x	x
HF-NWA	HFI	2.0-2.5		x	x			x
HF-NWB	HFI	6.5-7.0	x		x		x	x
HF-NWC	HFI	11.5-12.0	x		x			x
HF-NWD	HFI	18.0-18.5						x
LD-4	AOC #F-1	2.5-3.0		x	x			x
HF-6	HFI, AOC #B-1, #D-2	10.5-11.0	x		x			x
STG-1	AOC #F-1, #B-1, #D-2	1.5-2.0						x
HF-7	HFI, AOC #B-1, #D-2	16.0-16.5						x
TRENCH-1	Unidentified Trench	5.5-6.0		x	x		x	x
STG-2	AOC #F-1	10.0-10.5	x		x		x	x
STG-3	AOC #F-2	2.5-3.0			x	x	x	x
LD-5	AOC #F-1, #C-1	10.0-10.5	x	x	x			x

The soil laboratory results, along with the NJDEP SRS are summarized in Table 3. The contaminant distribution plan depicting exceedances and sampling locations is shown on Plate 4.

Appendix 12 presents the laboratory analytical results, the QA/QC and chain of custody documents. Electronic Data Deliverables were included in Appendix 13.

4.4.3 Groundwater Sample Results

A groundwater sample, TW-1, was submitted for petroleum fingerprint analysis along with PP+40 and TPH analyses. The results of the petroleum fingerprint analysis for TW-1 indicated a match of Mineral Spirits (C9-C12) and Fuel Oil #4 (C11-C24). The results for the fingerprint analysis are shown in Table 2.

The groundwater sampling results revealed VOC, SVOC, and metals exceeded the applicable NJDEP Groundwater Criteria (GQC) for Class II-A aquifers. It should be recognized that TPH results for the groundwater samples revealed elevated levels of TPH of 48,500 and 2,570 µg/L for TW-1 and TW-2, respectively.

The groundwater sampling results for volatile organic compounds indicated benzene and Tentatively Identified Volatile Organic Compounds (TIVOC).detected in the groundwater samples in excess their applicable NJDEP GQC of 1 and 500 µg/L

The groundwater sampling results for semi-volatile organic compounds indicated several compounds detected in the groundwater samples in excess their applicable NJDEP GQC include 2,4-dimethylphenol, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-Ethylhexyl)phthalate indeno(1,2,3-cd)pyrene, and Tentatively Identified Semi-Volatile Organic Compounds (TISVOC).

The groundwater sampling results for pesticides PCBs, phenols, and cyanides did not reveal any analytical compounds detected at levels exceeding the applicable NJDEP GQC.

The groundwater sampling results for metals indicated several compounds detected in the groundwater samples in excess their applicable NJDEP GQC include antimony, arsenic, chromium, lead, mercury, nickel, and zinc.

Table 4 presents the analytical results of the groundwater samples collected from the temporary well points. Plate 4 presents the groundwater contaminant distribution plan showings its temporary well point locations and their exceedances. Appendix 12 presents the laboratory analytical results, the QA/QC and chain of custody documents. Electronic Data Deliverables were included in Appendix 13.

4.4.4 Basement Water Results

Sample GC-1, collected from BW-2 location, was submitted for the petroleum fingerprint analysis. The results indicated a partial match of Gasoline (C4-C12) and Diesel /Fuel oil #2 (C9-C22) as shown in Table 2.

The basement water sampling results revealed several VOC, SVOC, PCBs, and metals exceeded the applicable NJDEP GQC for Class II-A aquifers. Again, it should be recognized elevated TPH levels of 80,000 and 248,000 μg/L in the basement water samples.

Table 5 presents the analytical results of the basement water samples. Plate 4 presents the basement water sampling locations and their exceedances. Appendix 12 presents the laboratory analytical results, the QA/QC and chain of custody documents. Electronic Data Deliverables were included in Appendix 13.

4.4.5 Quality Assurance/Quality Control (QA/QC) Sampling

All analytical results for QA/QA samples were not detected above the laboratory reported detection limits (RDLs).

Appendix 12 presents the laboratory analytical data reports, including the QA/QC and chain of custody documents. Electronic Data Deliverables were included in Appendix 13.

5.0 BASELINE ECOLOGICAL EVALUATION (BEE)

The BEE will be completed in accordance with the N.J.A.C. 7:26E- 3.11, and will be submitted to the NJDEP under a separate cover.

6.0 WELL SEARCH

As part of the receptor evaluation, a search of the well records maintained by NJDEP Bureau of Water System and Well Permitting will be completed in accordance with the N.J.A.C. 7:26E-3.7. The results of the well search will be submitted to the NJDEP under a separate cover.

7.0 SITE INVESTIGATION CERTIFICATION

The SI Report Certification Form required pursuant to the NJDEP Technical Requirements for Site Remediation (N.J.A.C. 7:26E) is presented as Appendix 14.

8.0 SUMMARY OF FINDINGS

Based on the sampling results and the information gathered during the SI activities, a summary of the findings are presented.

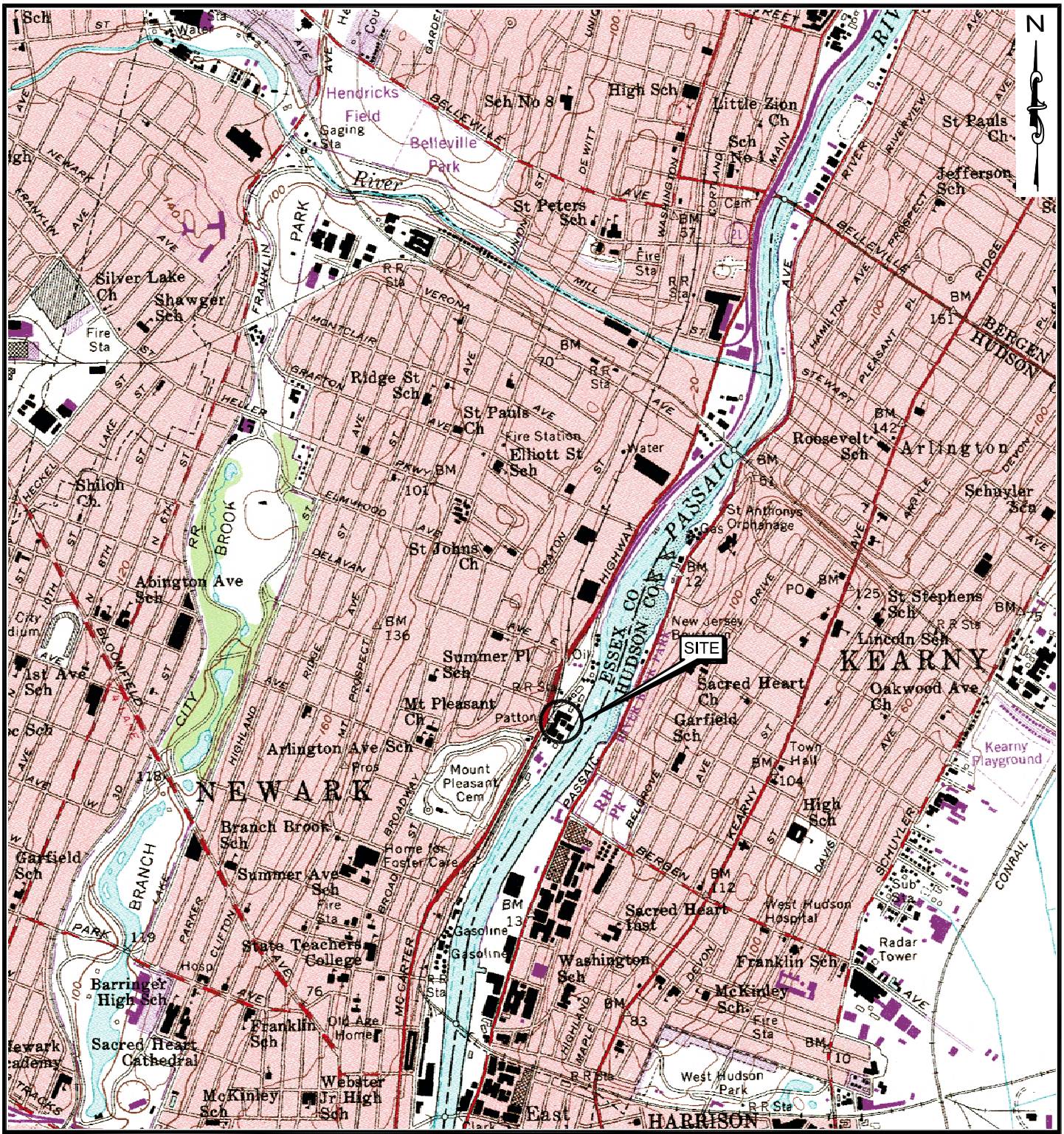
- On-site subsurface included disturbed conditions and fill material from the ground surface to depths of approximately 8.0 – 10.0 feet bsg. Below the 8.0 - 10.0 foot interval the materials included sands, silts, and gravels typical of natural deposits associated with neighboring Passaic River.

- The results of the GPR survey indicated nine (9) possible USTs; a reinforced concrete pad, a buried unreinforced concrete pad; segments of possible utilities, areas of buried metal, scattered small unidentified buried objects were detected; and four (4) possible buried manholes were detected.
- The analytical results of the soil samples indicated exceedances of TPH, VOC, SVOC, metals, and PCBs above the most stringent NJDEP SRS and/or the NJDEP IGW criteria.
- The results of the petroleum fingerprint analysis for a groundwater sample (TW-1) indicated a match of Mineral Spirits (C9-C12) and Fuel Oil #4 (C11-C24).
- The groundwater sampling results revealed VOC, SVOC, and metals exceeded the applicable NJDEP GQC for Class II-A aquifers.
- Sample GC-1, collected from BW-2 location, indicated a partial match of Gasoline (C4-C12) and Diesel/Fuel oil #2 (C9-C22).
- The basement water sampling results revealed several VOC, SVOC, PCBs, and metals exceeded the applicable NJDEP GQC for Class II-A aquifers.
- It should be recognized that elevated TPH levels was detected in both groundwater and basement water samples.

9.0 CONCLUSION AND RECOMMENDATIONS

Based on the sampling results and the information gathered during the SI activities, the soil and groundwater on-Site have been identified to be impacted above the applicable NJDEP criteria. The source of the impacts is likely to have been historic fill, as well as former on-Site operations.

A remedial investigation (RI) is recommended to determine the extent (vertical and horizontal), and concentration of soil and groundwater impacts on-Site. To advance the project it is recommended that a remedial investigation workplan (RIW) will be prepared in accordance with the NJDEP requirements (N.J.A.C. 7:26E) in order to outline the proposed sampling strategy for the RI, and to permit NJDEP review and approval.



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U.S.G.S. TOPOGRAPHIC MAP

U.S.G.S. TOPOGRAPHIC MAP
ORANGE, N.J.QUADRANGLE
1955 (PHOTO REVISED 1981)
CONTOUR INTERVAL: 20 FEET

1700-1712 MCCARTER HIGHWAY
BLOCK 614, LOT 63 AND 64
CITY OF NEWARK, ESSEX COUNTY
NEW JERSEY

Date	Scale	Drawn	Checked	Released	Job No.	Plate Number:
6-30-09	1"=2,000'	JF	AM	AM	092976 Dwg Name: 092976-USGS.dwg	1

N/F ERIE - LACKAEANNA RAILROAD

16'-8"
102'-11"
LOADING DOCK
16'-4"
AREAWAY
5 STORY BRICK BUILDING #12
LOADING DOCK
RAMP
STAIRS
BLOCK 614
LOT 64
93'-5"
SITE
28'-10"
52'-9"
DOCK
67'
3 STORY BRICK BUILDING #7
PAD (FORMER BLDG)
TRANSFORMERS
STIRS
24'
BLOCK 614
LOT 63

4 STORY BRICK
1 STORY BRICK
LOADING DOCK
2 STORY BRICK BUILDING
1 STORY
DOCK
RAMP
1 STORY BRICK
1 STORY METAL & BRICK BUILDING

PASSAIC RIVER

DRAFT 10-16-09

GRAPHIC SCALE

30 15 0 30 60

1 INCH = 30 FEET

SOURCE:
COPY OF "PROPOSED SUBDIVISION LOT 1 – BLOCK 614" NEWARK TAX MAP, DATED JUNE 25, 1984.

SITE PLAN

1700-1712 MCCARTER HIGHWAY
BLOCK 614, LOT 63 AND 64

SITUATED IN
CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY

PMK GROUP, INC.
A SUBSIDIARY OF BIRDSALL SERVICES GROUP, INC.
CONSULTING ENGINEERS & SURVEYORS
Certificate of Authorization No. 24GA28028000
65 Jackson Drive
Cranford, NJ 07016
WWW.BIRDSALL.COM
Tel.: 908-497-8900
Fax.: 908-497-9134

Drawing Name:	Drawn	Designed	Checked	Released
092976-SP.dwg	JF		EJM	EJM

Job No.	Date	Scale: (H) 1"=30' (V)	Plate No.
092976	6-30-09		2

RAILROAD

LOADING DOCK

LD-4

ELEVATOR

AREA WAY

5 STORY BRICK BUILDING

BUILDING # 12

BLOCK 614
LOT 64

LOADING DOCK/RAMP

LD-1A

HF-6

HF-7

STG-1

CONCRETE PAD

TRENCH-1

STAIRS

LD-1/HF-4

TW-1/UST-DG/HF-1/HF-2

HF-NW

N61°19'40"W
93.98'

S28°40'20"W
30.00'

N61°19'40"W
105.00'

N61°19'40"W
145.50'

N28°43'20"E
153.00'

Covered Walkway

Covered Walkway

S61°19'40"E
49.00'

S29°53'30"W
8.61'

S61°19'40"E
96.60'

N36°52'20"E
104.00'
79.00'

N36°52'20"E
105.03'

S89°43'30"
52.33'

Tree Line

c/L Fence

Block Wall

Concr

LD-3

LOADING DOCK

STG-2

ELEVATOR

FORMER THINNING TANKS

LOADING DOCK

LD-2/HF-5

BW-1

LD-5

TW-2

TT-1

3 STORY BRICK BUILDING

BUILDING # 7

BLOCK 614
LOT 63

BW-2/GC-1

STG-3

TRANS-1/HF-3

STAIRS

TRANSFORMERS

S28°40'20"W
144.40'

S51°15'40"E
100.00'

S38°47'20"W
82.94'

Steel Bulkhead

S31°09'20"W
25.41'

S31°09'20"W
391.17'

S31°09'20"W
249.03'

Steel Bulkhead

PASSAIC RIVER

DRAFT 10-16-09

LEGEND:

LD-1 – NUMBER AND APPROXIMATE LOCATION OF SAMPLING.

– PROPERTY / LOT LINE

GRAPHIC SCALE

40 20 0 40 80

1 INCH = 40 FEET

SOIL & GROUNDWATER SAMPLING PLAN
BLOCK 614, LOTS 63 AND 64
CITY OF NEWARK
1700–1712 McCARTER HWY R

SITUATED IN
CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY

BIRDSALL SERVICES GROUP
ENGINEERS & CONSULTANTS

PMK Group, Inc.
65 Jackson Drive
Cranford, NJ 07016
NJ Certificate of Authorization No. 24GA28147100

Tel.: 908.497.8900
Fax.: 908.497.9134
WWW.BIRDSALL.COM

Drawing Name:	Drawn	Designed	Checked	Released
092976-SP-1.dwg	JF	PW	PW	PW
Job No. 092976	Date 10-16-09	Scale: (H) 1" = 40' (V)		3

Sample No.	CASRN #	LD-4	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-17			
Date Collected		9/23/2009			
Sampling Depth (ft.)		2.5-3.0			
Semi-Volatile Organic Compounds (SVOC), mg/kg					
Benzo(a)anthracene	56-55-3	1.15	0.6	2	0.5
Benzo(a)pyrene	50-32-8	1.08	0.2	0.2	0.2
Benzo(b)fluoranthene	205-99-2	1.08	0.6	2	2
Metals, mg/kg					
Beryllium	105-67-9	0.79	16	140	0.5
Lead	7439-92-1	494	400	800	59
Mercury	7439-97-6	0.58	23	65	0.1
Zinc	7440-66-6	917	23,000	110,000	600

Sample No.	CASRN #	HF-6	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-18			
Date Collected		9/23/2009			
Sampling Depth (ft.)		10.5-11.0			
Volatile Organic Compounds (VOC), mg/kg					
TIVOC	--	1,966 J	1,000*	1,000*	1,000*
Metals, mg/kg					
Beryllium	105-67-9	0.92	16	140	0.5
Lead	7439-92-1	627	400	800	59
Mercury	7439-97-6	3.7	23	65	0.1

Sample No.	CASRN #	STG-1	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-19			
Date Collected		9/23/2009			
Sampling Depth (ft.)		1.5-2.0			
Metals, mg/kg					
Beryllium	105-67-9	0.95	16	140	0.5
Lead	7439-92-1	99.6	400	800	59
Mercury	7439-97-6	0.18	23	65	0.1

Sample No.	CASRN #	HF-7	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-20			
Date Collected		9/23/2009			
Sampling Depth (ft.)		16.0-16.5			
Metals, mg/kg					
Lead	7439-92-1	59.4	400	800	59
Mercury	7439-97-6	0.16	23	65	0.1

Sample No.	CASRN #	TRENCH-1	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-21			
Date Collected		9/23/2009			
Sampling Depth (ft.)		5.5-6.0			
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	0.0562 J	2	5	0.005
Xylenes (Total)	1330-20-7	28	12,000	170,000	12
Semi-Volatile Organic Compounds (SVOC), mg/kg					
Benzo(a)anthracene	56-55-3	1.8	0.6	2	0.5
Benzo(a)pyrene	50-32-8	1.54	0.2	0.2	0.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.923	0.6	2	5
PCBs & Pesticides, mg/kg					
Aroclor-1254	132-64-9	0.266	0.2	1	0.2
Total PCBs	--	0.38	0.2	1	0.2
Metals, mg/kg					
Beryllium	105-67-9	0.82	16	140	0.5
Cadmium	7440-43-9	2.6	78	78	1
Lead	7439-92-1	522	400	800	59
Mercury	7439-97-6	1.2	23	65	0.1
Zinc	7440-66-6	746	23,000	110,000	600

Sample No.	CASRN #	LD-1A	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-11			
Date Collected		9/23/2009			
Sampling Depth (ft.)		4.5-5.0			
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	0.0062	2	5	0.005
Semi-Volatile Organic Compounds (SVOC), mg/kg					
Benzo(a)anthracene	56-55-3	0.671	0.6	2	0.5
Benzo(a)pyrene	50-32-8	0.874	0.2	0.2	0.2
Benzo(b)fluoranthene	205-99-2	0.844	0.6	2	2
Dibenzo(a,h)anthracene	53-70-3	0.247	0.2	0.2	0.5
Indeno(1,2,3-cd)pyrene	193-39-5	0.62	0.6	2	5
PCBs & Pesticides, mg/kg					
Aroclor-1254	132-64-9	1.74	0.2	1	0.2
Total PCBs	--	1.74	0.2	1	0.2
Metals, mg/kg					
Beryllium	105-67-9	0.86	16	140	0.5
Lead	7439-92-1	455	400	800	59
Mercury	7439-97-6	0.93	23	65	0.1

Sample No.	CASRN #	HF-NWD	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-15			
Date Collected		9/23/2009			
Sampling Depth (ft.)		18.0-18.5			
Metals, mg/kg					
Beryllium	105-67-9	0.65	16	140	0.5

Sample No.	CASRN #	HF-NWC	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-14			
Date Collected		9/23/2009			
Sampling Depth (ft.)		11.5-12.0			
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	0.378	2	5	0.005
TIVOC	--	1,722 J	1,000*	1,000*	1,000*
Metals, mg/kg					
Beryllium	105-67-9	0.78	16	140	0.5
Cadmium	7440-43-9	1.3	78	78	1
Lead	7439-92-1	1,520	400	800	59
Mercury	7439-97-6	3.3	23	65	0.1
Selenium	91-58-7	3.7	390	5,700	7

Sample No.	CASRN #	HF-NWB	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-13			
Date Collected		9/23/2009			
Sampling Depth (ft.)		6.5-7.0			
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	3.71	2	5	0.005
TIVOC	--	3,640 J	1,000*	1,000*	1,000*
PCBs & Pesticides, mg/kg					
Aroclor-1254	132-64-9	0.518	0.2	1	0.2
Total PCBs	--	0.518	0.2	1	0.2
Metals, mg/kg					
Arsenic	7440-38-2	30.3	19	19	19
Beryllium	105-67-9	1.2	16	140	0.5
Cadmium	7440-43-9	2.1	78	78	1
Lead	7439-92-1	1,680	400	800	59
Mercury	7439-97-6	1.5	23	65	0.1
Selenium	91-58-7	20.7	390	5,700	7
Zinc	7440-66-6	1,130	23,000	110,000	600

Sample No.	CASRN #	HF-NWA	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-12			
Date Collected		9/23/2009			
Sampling Depth (ft.)		2.0-2.5			
Semi-Volatile Organic Compounds (SVOC), mg/kg					
Benzo(a)anthracene	56-55-3	0.728	0.6	2	0.5
Benzo(a)pyrene	50-32-8	0.513	0.2	0.2	0.2
Benzo(b)fluoranthene	205-99-2	0.694	0.6	2	2
Metals, mg/kg					
Beryllium	105-67-9	0.62	16	140	0.5
Cadmium	7440-43-9	6.2	78	78	1
Lead	7439-92-1	2,470	400	800	59
Mercury	7439-97-6	4.7	23	65	0.1
Zinc	7440-66-6	2,400	23,000	110,000	600

Sample No.	CASRN #	STG-2	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-22			
Date Collected		9/23/2009			
Sampling Depth (ft.)		10.0-10.5			
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	3.9	2	5	0.005
Toluene	108-88-3	41.9	6300	91000	4
TIVOC	--	1,878 J	1,000*	1,000*	1,000*
PCBs & Pesticides, mg/kg					
Aroclor-1260	--	0.226	0.2	1	0.2
Total PCBs	--	0.331	0.2	1	0.2
Metals, mg/kg					
Antimony	7440-36-0	12.4	31	450	6
Arsenic	7440-38-2	40.1	19	19	19
Beryllium	105-67-9	1.6	16	140	0.5
Cadmium	7440-43-9	7.3	78	78	1
Lead	7439-92-1	3,420	400	800	59
Mercury	7439-97-6	4.2	23	65	0.1
Nickel	1634-04-4	43.4	1,600	23,000	31
Phenols	108-95-2	6.8	18,000	210,000	5

Sample No.	CASRN #	BW-1	NJDEP GQC (μg/l)
Laboratory ID.#		JA27233-11	
Date Collected		9/3/2009	
Total Petroleum Hydrocarbon (TPH), μg/l			
TPH	--	80,000	--
Volatile Organic Compounds (VOC), μg/l			
1,1,1-Trichloroethane	71-55-6	284	30
1,1-Dichloroethane	75-34-3	198	50
1,1-Dichloroethene	75-35-4	7.1 J	1
Benzene	71-43-2	65.1	1
Methylene chloride	75-09-2	1,590	3
Tetrachloroethene	127-18-4	9.5 J	1
Trichloroethene	79-01-6	14	1
TVOC	--	3,606.80	500*
TIVOC	--	900 J	500*
Semi-Volatile Organic Compounds (SVOC), μg/l			
1,2,4-Trichlorobenzene	120-82-1	58.9	9
2,4-Dimethylphenol	105-67-9	250	100
Benzo(a)anthracene	56-55-3	1.8	0.1
Benzo(a)pyrene	50-32-8	1.9	0.1
Benzo(b)fluoranthene	205-99-2	5	0.2
Benzo(k)fluoranthene	207-08-9	1.6	0.5
Di-n-octyl phthalate	117-84-0	103	100
Indeno(1,2,3-cd)pyrene	193-39-5	1.5	0.2
Phenol	108-95-2	2,850	2000
TSVOC	--	3,462.40	500*
TISVOC	--	3,508 J	500*
PCBs & Pesticides, μg/l			
Aroclor 1254	11097-69-1	0.7	0.5
Metals, μg/l			
Lead	7439-92-1	112	5

Sample No.	CASRN #	LD-5	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-24			
Date Collected		9/23/2009			
Sampling Depth (ft.)		10.0-10.5			
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	2.7	2	5	0.005
cis-1,2-Dichloroethene	156-59-2	0.314 J	230	560	0.2
Ethylbenzene	100-41-4	12.8	7800	110000	8
Toluene	108-88-3	31.9	6300	91000	4
Xylenes (Total)	1330-20-7	65	12000	170000	12
TIVOC	--	1,410 J	1,000*	1,000*	1,000*
Semi-Volatile Organic Compounds (SVOC), mg/kg					
Benzo(a)anthracene	56-55-3	0.624	0.6	2	0.5
Benzo(a)pyrene	50-32-8	0.514	0.2	0.2	0.2
Metals, mg/kg					
Arsenic	7440-38-2	42	19	19	19
Cadmium	7440-43-9	2.8	78	78	1
Lead	7439-92-1	4,420	400	800	59
Mercury	7439-97-6	3.8	23	65	0.1
Silver	7440-22-4	2.2	390	5,700	1
Zinc	7440-66-6	4,510	23,000	110,000	600

Sample No.	CASRN #	TW-2	NJDEP GQC (μg/l)
Laboratory ID.#		JA28677-2	
Date Collected		9/22/2009	
Total Petroleum Hydrocarbon (TPH), μg/l			
TPH	--	2,570	--
Volatile Organic Compounds (VOC), μg/l			
Benzene	71-43-2	1.2 J	1
Semi-Volatile Organic Compounds (SVOC), μg/l			
Benzo(a)anthracene	56-55-3	1.73	0.1
Benzo(a)pyrene	50-32-8	0.733	0.1
Benzo(b)fluoranthene	205-99-2	1.75	0.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.307	0.2
TISVOC	--	663	500*
Metals, μg/l			
Antimony	7440-36-0	8.9	6
Arsenic	7440-38-2	63.5	3
Chromium	7440-47-3	136	70
Lead	7439-92-1	2,980	5
Mercury	7439-97-6	16.3	2
Nickel	7440-02-0	114	100
Zinc	7440-66-6	2,140	2000

Sample No.	CASRN #	BW-2	NJDEP GQC (μg/l)
Laboratory ID.#		JA27233-12	
Date Collected		9/3/2009	
Total Petroleum Hydrocarbon (TPH), μg/l			
TPH	--	248,000	--
Volatile Organic Compounds (VOC), μg/l			
1,1,1-Trichloroethane	71-55-6	3,290	30
1,1-Dichloroethane	75-34-3	909	50
1,1-Dichloroethene	75-35-4	78.2	1
1,2-Dichloroethane	107-06-2	24.1	2
Benzene	71-43-2	283	1
Chloroform	67-66-3	2,870	70
Methylene chloride	75-09-2	21,500	3
Tetrachloroethene	127-18-4	280	1
Toluene	108-88-3	4,460	1000
Trichloroethene	79-01-6	148	1
Vinyl chloride	75-01-4	12.9 J	1
Xylene (total)	1330-20-7	1,910	1000
TVOC	--	36,273.90	500*
TIVOC	--	10,480 J	500*
Semi-Volatile Organic Compounds (SVOC), μg/l			
1,2,4-Trichlorobenzene	120-82-1	55.3	9
2,4-Dimethylphenol	105-67-9	889	100
bis(2-Ethylhexyl)phthalate	117-81-7	22.7	3
Phenol	108-95-2	4,190	2000
TSVOC	--	5,619.94	500*
TISVOC	--	2,866 J	500*
Metals, μg/l			
Lead	7439-92-1	22	5

Sample No.	CASRN #	STG-3	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-23			
Date Collected		9/23/2009			
Sampling Depth (ft.)		2.5-3.0			
Total Petroleum Hydrocarbons (TPH), mg/kg					
TPH	--	27,900	10,000*	10,000*	10,000*
PCBs & Pesticides, mg/kg					
Aroclor-1254	132-64-9	0.223	0.2	1	0.2
Total PCBs	--	0.3125	0.2	1	0.2
Metals, mg/kg					
Beryllium	105-67-9	0.91	16	140	0.5
Cadmium	7440-43-9	4.7	78	78	1
Lead	7439-92-1	1,510	400	800	59
Mercury	7439-97-6	1.2	23	65	0.1
Zinc	7440-66-6	1,390	23,000	110,000	600

Sample No.	CASRN #	TT-1	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-5			
Date Collected		9/23/2009			
Sampling Depth (ft.)		1.5-2.0			
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	0.181	2	5	0.005
Metals, mg/kg					
Arsenic	7440-38-2	51.7	19	19	19
Beryllium	105-67-9	0.91	16	140	0.5
Cadmium	7440-43-9	5.7	78	78	1
Lead	7439-92-1	3,580	400	800	59
Mercury	7439-97-6	14.4	23	65	0.1
Nickel	1634-04-4	70	1,600	23,000	31
Zinc	7440-66-6	6,730	23,000	110,000	600

Sample No.	CASRN #	HF-3	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-4			
Date Collected		9/23/2009			
Sampling Depth (ft.)		7.0-7.5			
Volatile Organic Compounds (VOC), mg/kg					
TIVOC	--	5,810 J	1,000*	1,000*	1,000*
Semi-Volatile Organic Compounds (SVOC), mg/kg					
2,4-Dimethylphenol	105-67-9	0.944	1,200	14,000	0.7
Metals, mg/kg					
Beryllium	105-67-9	0.98	16	140	0.5
Lead	7439-92-1	355	400	800	59
Mercury	7439-97-6	0.4	23	65	0.1

Sample No.	CASRN #	HF-3R	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-29			
Date Collected		9/28/2009			
Sampling Depth (ft.)		7.0-7.5			
Volatile Organic Compounds (VOC), mg/kg					
TIVOC	--	5,910 J	1,000*	1,000*	1,000*

Sample No.	CASRN #	TW-1	NJDEP GQC (μg/l)
Laboratory ID.#		JA28677-1	
Date Collected		9/22/2009	
Total Petroleum Hydrocarbon (TPH), μg/l			
TPH	--	48,500	--
Volatile Organic Compounds (VOC), μg/l			
Benzene	71-43-2	4.3	1
TIVOC	--	2,612	500*
Semi-Volatile Organic Compounds (SVOC), μg/l			
2,4-Dimethylphenol	105-67-9	127	100
Benzo(a)anthracene	56-55-3	4.75	0.1
Benzo(a)pyrene	50-32-8	2.82	0.1
Benzo(b)fluoranthene	205-99-2	3.6	0.2
Benzo(k)fluoranthene	207-08-9	2	0.5
bis(2-Ethylhexyl)phthalate	117-81-7	3.2	3
Indeno(1,2,3-cd)pyrene	193-39-5	0.807	0.2
TISVOC	--	2,793	500*
Metals, μg/l			
Arsenic	7440-38-2	24.8	3
Lead	7439-92-1	1,580	5

Sample No.	CASRN #	UST-DG/HF-1	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-1			
Date Collected		9/23/2009			
Sampling Depth (ft.)		6.5-7.0			
Total Petroleum Hydrocarbons (TPH), mg/kg					
TPH	--	17,600	10,000*	10,000*	10,000*
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	3.06 J	2	5	0.005
TIVOC	--	8,010 J	1,000*	1,000*	1,000*
Semi-Volatile Organic Compounds (SVOC), mg/kg					
2,4-Dimethylphenol	105-67-9	0.774	1,200	14,000	0.7
Benzo(a)pyrene	50-32-8	0.263	0.2	0.2	0.2
Metals, mg/kg					
Beryllium	105-67-9	0.82	16	140	0.5
Lead	7439-92-1	657	400	800	59
Mercury	7439-97-6	0.41	23	65	0.1
Silver	7440-22-4	1.4	390	5,700	1

Sample No.	CASRN #	UST-DG/HF-1R	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-26			
Date Collected		9/28/2009			
Sampling Depth (ft.)		6.5-7.0			
Volatile Organic Compounds (VOC), mg/kg					
TIVOC	--	5,340 J	1,000*	1,000*	1,000*

Sample No.	CASRN #	HF-2	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-2			
Date Collected		9/23/2009			
Sampling Depth (ft.)		11.0-12.5			
Volatile Organic Compounds (VOC), mg/kg					
TIVOC	--	6,380 J	1,000*	1,000*	1,000*
Metals, mg/kg					
Antimony	7440-36-0	8.7	31	450	6
Arsenic	7440-38-2	56.6	19	19	19
Beryllium	105-67-9	0.52	16	140	0.5
Cadmium	7440-43-9	3.4	78	78	1
Lead	7439-92-1	10,800	400	800	59
Mercury	7439-97-6	5.7	23	65	0.1
Nickel	1634-04-4	33.7	1,600	23,000	31
Zinc	7440-66-6	1,270	23,000	110,000	600

Sample No.	CASRN #	HF-2R	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-27			
Date Collected		9/28/2009			
Sampling Depth (ft.)		11.0-12.5			
Volatile Organic Compounds (VOC), mg/kg					
Benzene	71-43-2	3.32	2	5	0.005
TIVOC	--	2,350 J	1,000*	1,000*	1,000*

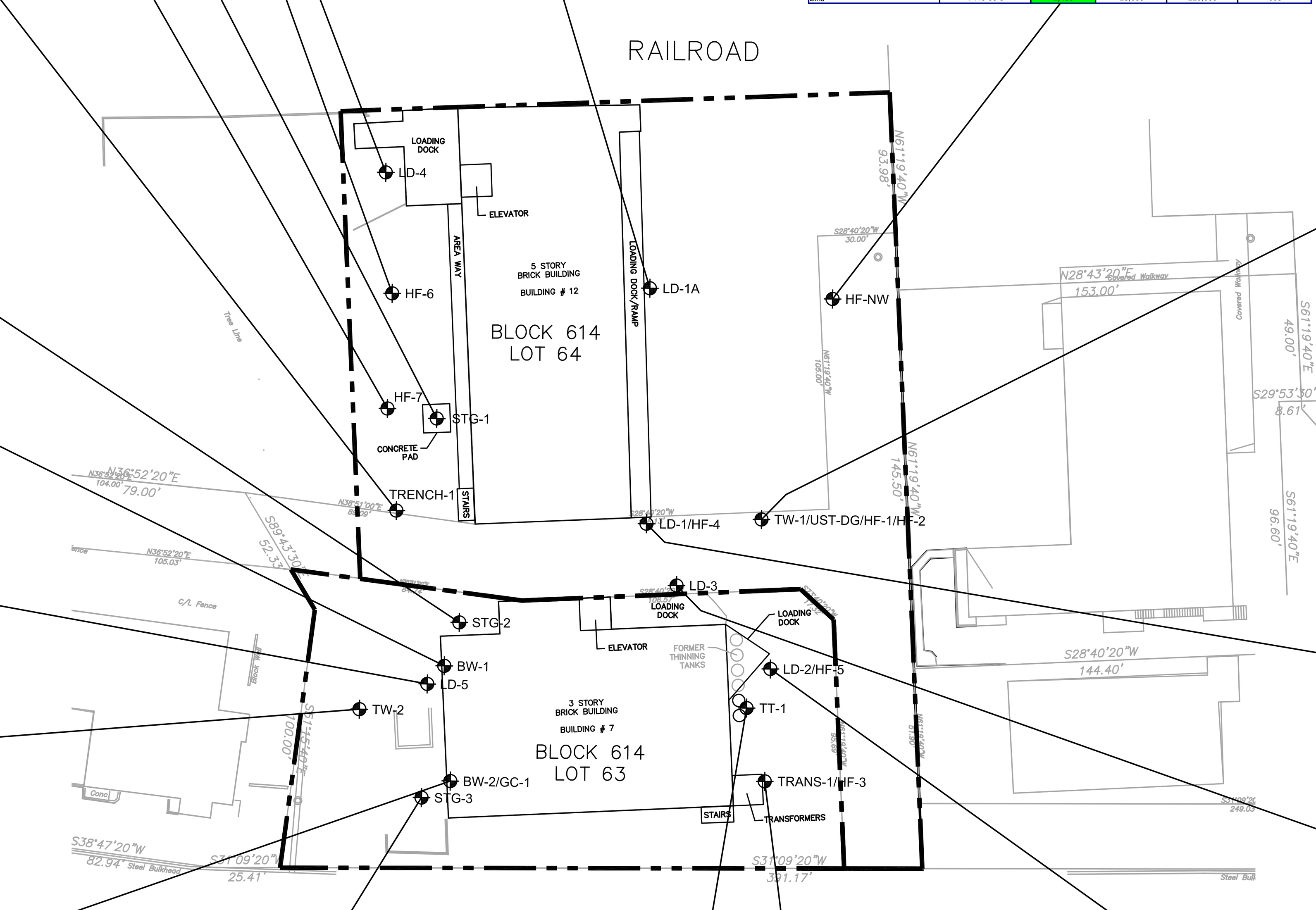
Sample No.	CASRN #	LD-1	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-6			
Date Collected		9/23/2009			
Sampling Depth (ft.)		1.5-2.0			
Semi-Volatile Organic Compounds (SVOC), mg/kg					
Benzo(a)anthracene	56-55-3	0.577	0.6	2	0.5
Benzo(a)pyrene	50-32-8	0.68	0.2	0.2	0.2
Metals, mg/kg					
Beryllium	105-67-9	0.82	16	140	0.5
Cadmium	7440-43-9	1.9	78	78	1
Lead	7439-92-1	967	400	800	59
Mercury	7439-97-6	1.1	23	65	0.1
Zinc	7440-66-6	966	23,000	110,000	600

Sample No.	CASRN #	HF-4	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-7			
Date Collected		9/23/2009			
Sampling Depth (ft.)		11.0-11.5			
Metals, mg/kg					
Lead	7439-92-1	296	400	800	59
Mercury	7439-97-6	1.9	23	65	0.1

Sample No.	CASRN #	LD-3	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-10			
Date Collected		9/23/2009			
Sampling Depth (ft.)		1.5-2.0			
Semi-Volatile Organic Compounds (SVOC), mg/kg					
Benzo(a)pyrene	50-32-8	0.4	0.2	0.2	0.2
PCBs & Pesticides, mg/kg					
Aroclor-1260	--	0.506	0.2	1	0.2
Total PCBs	--	0.506	0.2	1	0.2
Metals, mg/kg					
Arsenic	7440-38-2	21.9	19	19	19
Beryllium	105-67-9	0.9	16	140	0.5
Cadmium	7440-43-9	3.5	78	78	1
Lead	7439-92-1	1,610	400	800	59
Mercury	7439-97-6	5.3	23	65	0.1
Zinc	7440-66-6	1,850	23,000	110,000	600

Sample No.	CASRN #	LD-2	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-8			
Date Collected		9/23/2009			
Sampling Depth (ft.)		1.5-2.0			
Metals, mg/kg					
Beryllium	105-67-9	1.5	16	140	0.5
Cadmium	7440-43-9	2.6	78	78	1
Lead	7439-92-1	415	400	800	59
Mercury	7439-97-6	0.85	23	65	0.1

Sample No.	CASRN #	HF-5	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-9			
Date Collected		9/23/2009			
Sampling Depth (ft.)		6.5-7.0			
Total Petroleum Hydrocarbons (TPH), mg/kg					
TPH	--	10,500	10,000*	10,000*	10,000*
Volatile Organic Compounds (VOC), mg/kg					
TIVOC	--	9,930 J	1,000*	1,000*	1,000*
Metals, mg/kg					
Beryllium	105-67-9	0.9	16	140	0.5
Lead	7439-92-1	166	400	800	59
Mercury	7439-97-6	0.24	23	65	0.1



LEGEND:

LD-1 — NUMBER AND APPROXIMATE LOCATION OF SAMPLING.

— PROPERTY / LOT LINE

GRAPHIC SCALE

40 20 0 40 80

1 INCH = 40 FEET

CONTAMINANT DISTRIBUTION PLAN
BLOCK 614, LOTS 63 AND 64
CITY OF NEWARK
1700–1712 McCARTER HWY R

SITUATED IN
CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY

BIRDSALL SERVICES GROUP
ENGINEERS & CONSULTANTS
PMK Group, Inc.
65 Jackson Drive
Cranford, NJ 07016
NJ Certificate of Authorization No. 24GA28147100
Tel.: 908.497.8900
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WWW.BIRDSALL.COM

DRAFT 10-16-09

Drawing Name: 092976-CD.dwg	Drawn JF	Designed PW	Checked PW	Released PW
Job No. 092976	Date 10-16-09	Scale: (H) 1" = 40' (V)		OF 4

TABLE 1
SAMPLING SUMMARY
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

PMK SAMPLE ID	SAMPLE RATIONALE	LAB SAMPLE #	DATE COLLECTED	SAMPLING DEPTH* (FT)	MATRIX	ANALYTICAL PARAMETER
Fingerprint Sample						
GC-1	Soil Petroleum Fingerprint	JA22272-13	9/3/2009	NA	Soil	Petroleum Fingerprint
TW-1	GW Petroleum Fingerprint	JA28677-1	9/22/2009	9.5	GW	Petroleum Fingerprint
Basement Water Samples (Building #7)						
BW-1	Basement Water	JA22272-11	9/3/2009	NA	AQ	PP+40, TPH, BOD, COD, TOC
BW-2	Basement Water	JA22272-12	9/3/2009	NA	AQ	PP+40, TPH, BOD, COD, TOC
Groundwater Samples						
TW-1	Groundwater Investigation	JA28677-1	9/22/2009	9.5	GW	PP+40, TPH
TW-2	Groundwater Investigation	JA28677-2	9/22/2009	9	GW	PP+40, TPH
Soil Samples						
UST-DG/HF-1	HFI, AOC #A-2, #B-1, #D-2	JA28754-1	9/23/2009	6.5-7.0	Soil	PP+40, TPH
UST-DG/HF-1R	HFI, AOC #A-2, #B-1, #D-2	JA28754-26	9/28/2009	6.5-7.0	Soil	VO+10
HF-2	HFI	JA28754-2	9/23/2009	11.0-12.5	Soil	PP+40, TPH
HF-2R	HFI	JA28754-27	9/28/2009	11.0-12.5	Soil	VO+10
TRANS-1	AOC #E-1, #E-1A	JA28754-3	9/23/2009	0.5-1.0	Soil	PCBs
HF-3	HFI	JA28754-4	9/23/2009	7.0-7.5	Soil	PP+40, TPH
HF-3R	HFI	JA28754-29	9/28/2009	7.0-7.5	Soil	VO+10
TT-1	AOC #E-1, #E-1A, #A-3	JA28754-5	9/23/2009	1.5-2.0	Soil	PP+40, TPH
TT-1R	AOC #E-1, #E-1A, #A-3	JA28754-28	9/28/2009	1.5-2.0	Soil	VO+10
LD-1	AOC #F-1	JA28754-6	9/23/2009	1.5-2.0	Soil	PP+40, TPH
HF-4	HFI	JA28754-7	9/23/2009	11.0-11.5	Soil	PP+40, TPH
LD-2	AOC #F-1	JA28754-8	9/23/2009	1.5-2.0	Soil	PP+40, TPH
HF-5	HFI	JA28754-9	9/23/2009	6.5-7.0	Soil	PP+40, TPH
LD-3	AOC #F-1, #C-1	JA28754-10	9/23/2009	1.5-2.0	Soil	PP+40, TPH
LD-1A	AOC #F-1	JA28754-11	9/23/2009	4.5-5.0	Soil	PP+40, TPH
HF-NWA	HFI	JA28754-12	9/23/2009	2.0-2.5	Soil	PP+40, TPH
HF-NWB	HFI	JA28754-13	9/23/2009	6.5-7.0	Soil	PP+40, TPH
HF-NWC	HFI	JA28754-14	9/23/2009	11.5-12.0	Soil	PP+40, TPH
HF-NWD	HFI	JA28754-15	9/23/2009	18.0-18.5	Soil	PP+40, TPH

TABLE 1
SAMPLING SUMMARY
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

PMK SAMPLE ID	SAMPLE RATIONALE	LAB SAMPLE #	DATE COLLECTED	SAMPLING DEPTH* (FT)	MATRIX	ANALYTICAL PARAMETER
LD-4	AOC #F-1	JA28754-17	9/23/2009	2.5-3.0	Soil	PP+40, TPH
HF-6	HFI, AOC #B-1, #D-2	JA28754-18	9/23/2009	10.5-11.0	Soil	PP+40, TPH
STG-1	AOC #F-1, #B-1, #D-2	JA28754-19	9/23/2009	1.5-2.0	Soil	PP+40, TPH
HF-7	HFI, AOC #B-1, #D-2	JA28754-20	9/23/2009	16.0-16.5	Soil	PP+40, TPH
TRENCH-1	Unidentified Trench	JA28754-21	9/23/2009	5.5-6.0	Soil	PP+40, TPH
STG-2	AOC #F-1	JA28754-22	9/23/2009	10.0-10.5	Soil	PP+40, TPH
STG-3	AOC #F-2	JA28754-23	9/23/2009	2.5-3.0	Soil	PP+40, TPH
LD-5	AOC #F-1, #C-1	JA28754-24	9/23/2009	10.0-10.5	Soil	PP+40, TPH
QA/QC Samples						
GWFB	Field Blank	JA28677-3	9/22/2009	NA	AQ	PP+40, TPH
Trip Blank	Trip Blank	JA28677-4	9/22/2009	NA	AQ	VO+10
SFB	Field Blank	JA28754-16	9/23/2009	NA	AQ	VO+10
Trip Blank	Trip Blank	JA28754-25	9/23/2009	NA	AQ	VO+10

LEGEND:

*	- Depth Below Existing Grade
HFI	- Historic Fill Investigation
FT	- Feet
AQ	- Aqueous
GW	- Groundwater
PP+40	- Priority Pollutant Compounds Analysis plus a forward library search for 40 additional non-targeted compounds
VO+10	- Volatile Organic Compounds Analysis Plus a Forward Library Search for 10 Additional Non-targeted Compounds
PP Metals	- Priority Pollutant Metals
PAHs	- Polynuclear Aromatic Hydrocarbons
PCBs	- Polychlorinated Biphenyls
TPH	- Total Petroleum Hydrocarbons
BOD	- Biochemical Oxygen Demand
COD	- Chemical Oxygen Demand
TOC	- Total Organic Carbon
NA	- Not Applicable
FB	- Field Blank
TB	- Trip Blank

TABLE 2
PETROLEUM FINGERPRINT RESULTS
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN#	GC-1	TW-1
Laboratory ID.#		JA22272-13	JA28677-1
Date Collected		9/3/2009	9/22/2009
Sample Depth		NA	NA
Petroleum Fingerprint			
Gasoline (C4-C12)	Not Available	PARTIAL MATCH	NO MATCH
Turpentine (C9-C11)	Not Available	NO MATCH	NO MATCH
Mineral Spirits (C9-C12)	Not Available	NO MATCH	MATCH
Kerosene (C9-C18)	Not Available	NO MATCH	NO MATCH
Diesel /Fuel oil #2 (C9-C22)	Not Available	PARTIAL MATCH	NO MATCH
Fuel Oil #4 (C11-C24)	Not Available	NO MATCH	MATCH
Fuel Oil #6 (C11-C26)	Not Available	NO MATCH	NO MATCH
Other Patterns	Not Available	NO MATCH	NO MATCH

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	UST-DG/HF-1	UST-DG/HF-1R	HF-2	HF-2R	TRANS-1	HF-3	HF-3R	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-1	JA28754-26	JA28754-2	JA28754-27	JA28754-3	JA28754-4	JA28754-29			
Date Collected		9/23/2009	9/28/2009	9/23/2009	9/28/2009	9/23/2009	9/23/2009	9/28/2009			
Sampling Depth (ft.)		6.5-7.0	6.5-7.0	11.0-12.5	11.0-12.5	0.5-1.0	7.0-7.5	7.0-7.5			
Total Petroleum Hydrocarbons (TPH), mg/kg											
TPH	--	**17,600**	NA	4,680	NA	NA	5,010	NA	10,000*	10,000*	10,000*
Volatile Organic Compounds (VOC), mg/kg											
1,1,1-Trichloroethane	71-55-6	ND	ND	ND	ND	NA	ND	ND	290	4200	0.2
1,1,2,2-Tetrachloroethane	79-34-5	ND	ND	ND	ND	NA	ND	ND	1	3	0.005
1,1,2-Trichloroethane	79-00-5	ND	ND	ND	ND	NA	ND	ND	2	6	0.01
1,1-Dichloroethane	75-34-3	ND	ND	ND	ND	NA	ND	ND	8	24	0.2
1,1-Dichloroethene	75-35-4	ND	ND	ND	ND	NA	ND	ND	11	150	0.005
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	ND	NA	ND	ND	5300	59000	11
1,2-Dichloroethane	107-06-2	ND	ND	ND	ND	NA	ND	ND	0.9	3	0.005
1,2-Dichloropropane	78-87-5	ND	ND	ND	ND	NA	ND	ND	2	5	0.005
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	ND	NA	ND	ND	5300	59000	12
1,4-Dichlorobenzene	106-46-7	ND	ND	ND	ND	NA	ND	ND	5	13	1
2-Chloroethylvinylether	110-75-8	ND	ND	ND	ND	NA	ND	ND	--	--	--
Acrolein	107-02-8	ND	ND	ND	ND	NA	ND	ND	0.5	1	0.5
Acrylonitrile	107-13-1	ND	ND	ND	ND	NA	ND	ND	0.9	3	0.5
Benzene	71-43-2	**3.06 J**	ND	ND	**3.32**	NA	ND	ND	2	5	0.005
Bromoform	75-25-2	ND	ND	ND	ND	NA	ND	ND	81	280	0.02
Bromomethane	74-83-9	ND	ND	ND	ND	NA	ND	ND	25	59	0.03
Carbon Tetrachloride	56-23-5	ND	ND	ND	ND	NA	ND	ND	0.6	2	0.005
Chlorobenzene	108-90-7	ND	ND	ND	ND	NA	ND	ND	510	7400	0.4
Chloroethane	75-00-3	ND	ND	ND	ND	NA	ND	ND	220	1100	--
Chloroform	67-66-3	ND	ND	ND	ND	NA	ND	ND	0.6	2	--
Chloromethane	74-87-3	ND	ND	ND	ND	NA	ND	ND	4	12	--
cis-1,2-Dichloroethene	156-59-2	ND	ND	ND	ND	NA	ND	ND	230	560	0.2
cis-1,3-Dichloropropene	10061-01-5	ND	ND	ND	ND	NA	ND	ND	2	7	0.005
Dibromochloromethane	124-48-1	ND	ND	ND	ND	NA	ND	ND	3	8	0.005
Dichlorodifluoromethane	--	ND	ND	ND	ND	NA	ND	ND	490	230000	25
Ethylbenzene	100-41-4	ND	ND	ND	2.05	NA	0.934 J	1.03 J	7800	110000	8
Methylene Chloride	75-09-2	ND	ND	ND	ND	NA	ND	ND	34	97	0.007
Tetrachloroethene	127-18-4	ND	ND	ND	ND	NA	ND	ND	2	5	0.005
Toluene	108-88-3	2.2 J	ND	ND	3.94	NA	ND	ND	6300	91000	4
trans-1 ,2-Dichloroethene	156-60-5	ND	ND	ND	ND	NA	ND	ND	300	720	0.4
trans-1 ,3-Dichloropropene	10061-02-6	ND	ND	ND	ND	NA	ND	ND	2	7	--
Trichloroethene	79-01-6	ND	ND	ND	ND	NA	ND	ND	7	20	0.007
Trichlorofluoromethane	--	ND	ND	ND	ND	NA	ND	ND	23000	340000	22
Vinyl chloride	75-01-4	ND	ND	ND	ND	NA	ND	ND	0.7	2	0.005
Xylenes (Total)	1330-20-7	ND	ND	ND	11.6	NA	ND	ND	12000	170000	12
TVOC	--	5.26	ND	ND	20.91	NA	0.934	1.03	1,000*	1,000*	1,000*
TIVOC	--	**8,010 J**	**5,340 J**	**6,380 J**	**2,350 J**	NA	**5,810 J**	**5,910 J**	1,000*	1,000*	1,000*

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
TVOC: Targeted Volatile Organic Compounds
TIVOC: Tentatively Identified Volatile Organic Compounds
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
*: NJDEP Guidance Value

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	TT-1	TT-1R	LD-1	HF-4	LD-2	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-5	JA28754-28	JA28754-6	JA28754-7	JA28754-8			
Date Collected		9/23/2009	9/28/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		1.5-2.0	1.5-2.0	1.5-2.0	11.0-11.5	1.5-2.0			
Total Petroleum Hydrocarbons (TPH), mg/kg									
TPH	--	491	NA	311	627	1,200	10,000*	10,000*	10,000*
Volatile Organic Compounds (VOC), mg/kg									
1,1,1-Trichloroethane	71-55-6	0.121 J	ND	ND	ND	ND	290	4200	0.2
1,1,2,2-Tetrachloroethane	79-34-5	ND	ND	ND	ND	ND	1	3	0.005
1,1,2-Trichloroethane	79-00-5	ND	ND	ND	ND	ND	2	6	0.01
1,1-Dichloroethane	75-34-3	ND	ND	ND	ND	ND	8	24	0.2
1,1-Dichloroethene	75-35-4	ND	ND	ND	ND	ND	11	150	0.005
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	ND	ND	5300	59000	11
1,2-Dichloroethane	107-06-2	ND	ND	ND	ND	ND	0.9	3	0.005
1,2-Dichloropropane	78-87-5	ND	ND	ND	ND	ND	2	5	0.005
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	ND	ND	5300	59000	12
1,4-Dichlorobenzene	106-46-7	ND	ND	ND	ND	ND	5	13	1
2-Chloroethylvinylether	110-75-8	ND	ND	ND	ND	ND	--	--	--
Acrolein	107-02-8	ND	ND	ND	ND	ND	0.5	1	0.5
Acrylonitrile	107-13-1	ND	ND	ND	ND	ND	0.9	3	0.5
Benzene	71-43-2	**0.181**	ND	0.0017	0.00053 J	ND	2	5	0.005
Bromoform	75-25-2	ND	ND	ND	ND	ND	81	280	0.02
Bromomethane	74-83-9	ND	ND	ND	ND	ND	25	59	0.03
Carbon Tetrachloride	56-23-5	ND	ND	ND	ND	ND	0.6	2	0.005
Chlorobenzene	108-90-7	ND	ND	ND	ND	ND	510	7400	0.4
Chloroethane	75-00-3	ND	ND	ND	ND	ND	220	1100	--
Chloroform	67-66-3	0.115 J	0.0013 J	0.00081 J	ND	ND	0.6	2	--
Chloromethane	74-87-3	ND	ND	ND	ND	ND	4	12	--
cis-1,2-Dichloroethene	156-59-2	ND	ND	ND	ND	ND	230	560	0.2
cis-1,3-Dichloropropene	10061-01-5	ND	ND	ND	ND	ND	2	7	0.005
Dibromochloromethane	124-48-1	ND	ND	ND	ND	ND	3	8	0.005
Dichlorodifluoromethane	--	ND	ND	ND	ND	ND	490	230000	25
Ethylbenzene	100-41-4	ND	ND	0.0015	ND	0.257 J	7800	110000	8
Methylene Chloride	75-09-2	ND	ND	ND	ND	ND	34	97	0.007
Tetrachloroethene	127-18-4	0.338 J	0.0037 J	ND	ND	ND	2	5	0.005
Toluene	108-88-3	0.273	ND	0.0013	ND	ND	6300	91000	4
trans-1 ,2-Dichloroethene	156-60-5	ND	ND	ND	ND	ND	300	720	0.4
trans-1 ,3-Dichloropropene	10061-02-6	ND	ND	ND	ND	ND	2	7	--
Trichloroethene	79-01-6	ND	ND	ND	ND	ND	7	20	0.007
Trichlorofluoromethane	--	ND	ND	ND	ND	ND	23000	340000	22
Vinyl chloride	75-01-4	ND	ND	ND	ND	ND	0.7	2	0.005
Xylenes (Total)	1330-20-7	0.28 J	ND	0.0103	0.0012 J	0.554 J	12000	170000	12
TVOC	--	1.308	0.0005	0.01561	0.00173	0.811	1,000*	1,000*	1,000*
TIVOC	--	180 J	ND	ND	0.893 J	885 J	1,000*	1,000*	1,000*

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
TVOC: Targeted Volatile Organic Compounds
TIVOC: Tentatively Identified Volatile Organic Compounds
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
*: NJDEP Guidance Value

This document is a draft and is based on incomplete an/or preliminary data. This document has not gone through PMK Group's standard quality control review process.

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	HF-5	LD-3	LD-1A	HF-NWA	HF-NWB	HF-NWC	HF-NWD	LD-4	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-9	JA28754-10	JA28754-11	JA28754-12	JA28754-13	JA28754-14	JA28754-15	JA28754-17			
Date Collected		9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		6.5-7.0	1.5-2.0	4.5-5.0	2.0-2.5	6.5-7.0	11.5-12.0	18.0-18.5	2.5-3.0			
Total Petroleum Hydrocarbons (TPH), mg/kg												
TPH	--	**10,500**	666	783	2,450	5,340	1,900	15.4	2,540	10,000*	10,000*	10,000*
Volatile Organic Compounds (VOC), mg/kg												
1,1,1-Trichloroethane	71-55-6	ND	0.0372	ND	ND	ND	ND	ND	ND	290	4200	0.2
1,1,2,2-Tetrachloroethane	79-34-5	ND	ND	ND	ND	ND	ND	ND	ND	1	3	0.005
1,1,2-Trichloroethane	79-00-5	ND	ND	ND	ND	ND	ND	ND	ND	2	6	0.01
1,1-Dichloroethane	75-34-3	ND	0.0067 J	ND	ND	ND	ND	ND	ND	8	24	0.2
1,1-Dichloroethene	75-35-4	ND	ND	ND	ND	ND	ND	ND	ND	11	150	0.005
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	ND	ND	ND	ND	ND	5300	59000	11
1,2-Dichloroethane	107-06-2	ND	ND	ND	ND	ND	ND	ND	ND	0.9	3	0.005
1,2-Dichloropropane	78-87-5	ND	ND	ND	ND	ND	ND	ND	ND	2	5	0.005
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	ND	ND	ND	ND	ND	5300	59000	12
1,4-Dichlorobenzene	106-46-7	ND	ND	ND	ND	ND	ND	ND	ND	5	13	1
2-Chloroethylvinylether	110-75-8	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
Acrolein	107-02-8	ND	ND	ND	ND	ND	ND	ND	ND	0.5	1	0.5
Acrylonitrile	107-13-1	ND	ND	ND	ND	ND	ND	ND	ND	0.9	3	0.5
Benzene	71-43-2	ND	0.0015 J	**0.0062**	0.0021	**3.71**	**0.378**	ND	0.0016	2	5	0.005
Bromoform	75-25-2	ND	ND	ND	ND	ND	ND	ND	ND	81	280	0.02
Bromomethane	74-83-9	ND	ND	ND	ND	ND	ND	ND	ND	25	59	0.03
Carbon Tetrachloride	56-23-5	ND	ND	ND	ND	ND	ND	ND	ND	0.6	2	0.005
Chlorobenzene	108-90-7	ND	ND	ND	ND	ND	ND	ND	ND	510	7400	0.4
Chloroethane	75-00-3	ND	ND	ND	ND	ND	ND	ND	ND	220	1100	--
Chloroform	67-66-3	ND	0.00075 J	ND	ND	ND	ND	ND	ND	0.6	2	--
Chloromethane	74-87-3	ND	ND	ND	ND	ND	ND	ND	ND	4	12	--
cis-1,2-Dichloroethene	156-59-2	ND	ND	ND	ND	ND	ND	ND	ND	230	560	0.2
cis-1,3-Dichloropropene	10061-01-5	ND	ND	ND	ND	ND	ND	ND	ND	2	7	0.005
Dibromochloromethane	124-48-1	ND	ND	ND	ND	ND	ND	ND	ND	3	8	0.005
Dichlorodifluoromethane	--	ND	ND	ND	ND	ND	ND	ND	ND	490	230000	25
Ethylbenzene	100-41-4	ND	ND	0.0046	0.0048	1.13	ND	ND	0.0044	7800	110000	8
Methylene Chloride	75-09-2	ND	ND	ND	ND	ND	ND	ND	ND	34	97	0.007
Tetrachloroethene	127-18-4	ND	0.0021 J	ND	ND	ND	ND	ND	ND	2	5	0.005
Toluene	108-88-3	ND	0.0015 J	0.0012	0.00096 J	0.715 J	0.434	ND	0.0016	6300	91000	4
trans-1 ,2-Dichloroethene	156-60-5	ND	ND	ND	ND	ND	ND	ND	ND	300	720	0.4
trans-1 ,3-Dichloropropene	10061-02-6	ND	ND	ND	ND	ND	ND	ND	ND	2	7	--
Trichloroethene	79-01-6	ND	ND	ND	ND	ND	ND	ND	ND	7	20	0.007
Trichlorofluoromethane	--	ND	ND	ND	ND	ND	ND	ND	ND	23000	340000	22
Vinyl chloride	75-01-4	ND	ND	ND	ND	ND	ND	ND	ND	0.7	2	0.005
Xylenes (Total)	1330-20-7	1.84 J	0.0063	0.0109	0.0087	1.33 J	ND	ND	0.0056	12000	170000	12
TVOC	--	1.84	0.05605	0.0229	0.01656	6.885	0.812	ND	0.0132	1,000*	1,000*	1,000*
TIVOC	--	**9,930 J**	0.718 J	0.1124 J	15.92 J	**3,640 J**	**1,722 J**	2.61 J	12.03 J	1,000*	1,000*	1,000*

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
TVOC: Targeted Volatile Organic Compounds
TIVOC: Tentatively Identified Volatile Organic Compounds
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
*: NJDEP Guidance Value

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	HF-6	STG-1	HF-7	TRENCH-1	STG-2	STG-3	LD-5	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-18	JA28754-19	JA28754-20	JA28754-21	JA28754-22	JA28754-23	JA28754-24			
Date Collected		9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		10.5-11.0	1.5-2.0	16.0-16.5	5.5-6.0	10.0-10.5	2.5-3.0	10.0-10.5			
Total Petroleum Hydrocarbons (TPH), mg/kg											
TPH	--	3,960	19.4	182	962	7,260	**27,900**	2,090	10,000*	10,000*	10,000*
Volatile Organic Compounds (VOC), mg/kg											
1,1,1-Trichloroethane	71-55-6	ND	ND	ND	ND	ND	ND	ND	290	4200	0.2
1,1,2,2-Tetrachloroethane	79-34-5	ND	ND	ND	ND	ND	ND	ND	1	3	0.005
1,1,2-Trichloroethane	79-00-5	ND	ND	ND	ND	ND	0.0027 J	ND	2	6	0.01
1,1-Dichloroethane	75-34-3	ND	ND	ND	ND	ND	ND	ND	8	24	0.2
1,1-Dichloroethene	75-35-4	ND	ND	ND	ND	ND	ND	ND	11	150	0.005
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	ND	ND	ND	ND	5300	59000	11
1,2-Dichloroethane	107-06-2	ND	ND	ND	ND	ND	ND	ND	0.9	3	0.005
1,2-Dichloropropane	78-87-5	ND	ND	ND	ND	ND	ND	ND	2	5	0.005
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	ND	ND	ND	ND	5300	59000	12
1,4-Dichlorobenzene	106-46-7	ND	ND	ND	ND	ND	ND	ND	5	13	1
2-Chloroethylvinylether	110-75-8	ND	ND	ND	ND	ND	ND	ND	--	--	--
Acrolein	107-02-8	ND	ND	ND	ND	ND	ND	ND	0.5	1	0.5
Acrylonitrile	107-13-1	ND	ND	ND	ND	ND	ND	ND	0.9	3	0.5
Benzene	71-43-2	ND	ND	ND	**0.0562 J**	**3.9**	0.00066 J	**2.7**	2	5	0.005
Bromoform	75-25-2	ND	ND	ND	ND	ND	ND	ND	81	280	0.02
Bromomethane	74-83-9	ND	ND	ND	ND	ND	ND	ND	25	59	0.03
Carbon Tetrachloride	56-23-5	ND	ND	ND	ND	ND	ND	ND	0.6	2	0.005
Chlorobenzene	108-90-7	ND	ND	ND	ND	ND	ND	ND	510	7400	0.4
Chloroethane	75-00-3	ND	ND	ND	ND	ND	ND	ND	220	1100	--
Chloroform	67-66-3	ND	ND	ND	ND	ND	ND	ND	0.6	2	--
Chloromethane	74-87-3	ND	ND	ND	ND	ND	ND	ND	4	12	--
cis-1,2-Dichloroethene	156-59-2	ND	ND	ND	ND	ND	ND	**0.314 J**	230	560	0.2
cis-1,3-Dichloropropene	10061-01-5	ND	ND	ND	ND	ND	ND	ND	2	7	0.005
Dibromochloromethane	124-48-1	ND	ND	ND	ND	ND	ND	ND	3	8	0.005
Dichlorodifluoromethane	--	ND	ND	ND	ND	ND	ND	ND	490	230000	25
Ethylbenzene	100-41-4	ND	ND	0.0499 J	2.05	1.06	0.0025	**12.8**	7800	110000	8
Methylene Chloride	75-09-2	ND	ND	ND	ND	ND	ND	ND	34	97	0.007
Tetrachloroethene	127-18-4	ND	ND	ND	ND	ND	ND	ND	2	5	0.005
Toluene	108-88-3	0.191 J	0.00062 J	0.109 J	1.55	**41.9**	0.0024	**31.9**	6300	91000	4
trans-1 ,2-Dichloroethene	156-60-5	ND	ND	ND	ND	ND	ND	ND	300	720	0.4
trans-1 ,3-Dichloropropene	10061-02-6	ND	ND	ND	ND	ND	ND	ND	2	7	--
Trichloroethene	79-01-6	ND	ND	ND	ND	ND	ND	ND	7	20	0.007
Trichlorofluoromethane	--	ND	ND	ND	ND	ND	ND	ND	23000	340000	22
Vinyl chloride	75-01-4	ND	ND	ND	ND	ND	ND	ND	0.7	2	0.005
Xylenes (Total)	1330-20-7	ND	ND	0.237 J	**27.9**	8.34	0.022	**65**	12000	170000	12
TVOC	--	0.191	0.00062	0.3959	31.5562	55.2	0.03026	112.714	1,000*	1,000*	1,000*
TIVOC	--	**1,966 J**	0.0079 J	202.4 J	181.7 J	**1,878 J**	2.285 J	**1,410 J**	1,000*	1,000*	1,000*

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
TVOC: Targeted Volatile Organic Compounds
TIVOC: Tentatively Identified Volatile Organic Compounds
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
*: NJDEP Guidance Value

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	UST-DG/HF-1	HF-2	TRANS-1	HF-3	TT-1	LD-1	HF-4	LD-2	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-1	JA28754-2	JA28754-3	JA28754-4	JA28754-5	JA28754-6	JA28754-7	JA28754-8			
Date Collected		9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		6.5-7.0	11.0-12.5	0.5-1.0	7.0-7.5	1.5-2.0	1.5-2.0	11.0-11.5	1.5-2.0			
Semi-Volatile Organic Compounds (SVOC), mg/kg												
1,2,4-Trichlorobenzene	120-82-1	ND	ND	NA	ND	ND	ND	ND	ND	73	820	0.4
1,2-Dichlorobenzene	95-50-1	ND	ND	NA	ND	ND	ND	ND	ND	5300	59000	11
1,3-Dichlorobenzene	541-73-1	ND	ND	NA	ND	ND	ND	ND	ND	5300	59000	12
1,4-Dichlorobenzene	106-46-7	ND	ND	NA	ND	ND	ND	ND	ND	5	13	1
2,4,6-Trichlorophenol	88-06-2	ND	ND	NA	ND	ND	ND	ND	ND	19	74	0.2
2,4-Dichlorophenol	120-83-2	ND	ND	NA	ND	ND	ND	ND	ND	180	2100	0.2
2,4-Dimethylphenol	105-67-9	**0.774**	ND	NA	**0.944**	ND	0.0942 J	ND	ND	1,200	14,000	0.7
2,4-Dinitrophenol	51-28-5	ND	ND	NA	ND	ND	ND	ND	ND	120	1400	0.3
2,4-Dinitrotoluene	121-14-2	ND	ND	NA	ND	ND	ND	ND	ND	0.7	3	--
2,6-Dinitrotoluene	606-20-2	ND	ND	NA	ND	ND	ND	ND	ND	0.7	3	--
2-Chloronapthalene	91-58-7	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
2-Chlorophenol	95-57-8	ND	ND	NA	ND	ND	ND	ND	ND	310	2200	0.5
2-Nitrophenol	88-75-5	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
3,3-Dichlorobenzidine	91-94-1	ND	ND	NA	ND	ND	ND	ND	ND	1	4	0.2
4-Bromophenyl-phenylether	--	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
4-Chloro-3-methylphenol	59-50-7	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
4-Chloroaniline	106-47-8	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
4-Nitrophenol	100-02-7	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
Acenaphthene	83-32-9	0.785	0.111	NA	0.0374 J	ND	ND	ND	0.0145 J	3400	37000	74
Acenaphthylene	71-55-6	ND	ND	NA	ND	ND	0.0293 J	ND	0.0161 J	--	300000	--
Anthracene	120-12-7	0.465	0.0496 J	NA	ND	0.0256 J	0.0929	0.0199 J	0.0308 J	17000	30000	1500
Benzidine	92-87-5	ND	ND	NA	ND	ND	ND	ND	ND	0.7	0.7	0.7
Benzo(a)anthracene	56-55-3	0.312	0.0585	NA	ND	0.0561	**0.577**	0.086	0.1	0.6	2	0.5
Benzo(a)pyrene	50-32-8	**0.263**	0.0518 J	NA	ND	0.0629	**0.68**	ND	0.115	0.2	0.2	0.2
Benzo(b)fluoranthene	205-99-2	0.253	0.0378 J	NA	ND	0.0612	0.595	ND	0.132	0.6	2	2
Benzo(g,h,i)perylene	191-24-2	0.161	0.0381 J	NA	ND	0.0595	0.449	0.053	0.1	380000	30000	--
Benzo(k)fluoranthene	207-08-9	0.138	ND	NA	ND	0.032 J	0.382	ND	0.0624	6	23	16
bis(2-Chloroethoxy) methane	111-91-1	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
bis(2-Chloroethyl)ether	111-44-4	ND	ND	NA	ND	ND	ND	ND	ND	0.4	2	0.2
bis(2-Chloroisopropyl)ether	39638-32-9	ND	ND	NA	ND	ND	ND	ND	ND	23	67	3
bis-(2-Ethylhexyl)phthalate	117-81-7	0.0976	ND	NA	0.0549 J	ND	ND	ND	0.264	35	140	790
Butylbenzylphthalate	85-68-7	ND	ND	NA	ND	ND	ND	ND	ND	1200	14000	150
Chrysene	218-01-9	0.353	0.0631	NA	ND	0.0696	0.546	0.13	0.114	62	230	52
Di-n-butylphthalate	84-74-2	ND	ND	NA	ND	0.0544 J	ND	ND	ND	2400	27000	620
Di-n-octylphthalate	75-65-0	ND	ND	NA	ND	ND	ND	ND	ND	6100	68000	3300
Dibenzo(a,h)anthracene	53-70-3	0.0739	ND	NA	ND	0.0231 J	0.187	0.0245 J	0.0415	0.2	0.2	0.5
Diethylphthalate	84-66-2	ND	ND	NA	ND	ND	ND	ND	ND	49000	550000	57
Dimethylphthalate	131-11-3	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
Fluoranthene	206-44-0	0.743	0.143	NA	0.0264 J	0.11	0.788	0.0595	0.182	2300	24000	840
Fluorene	86-73-7	1.25	0.102	NA	0.0634	ND	ND	0.0181 J	0.0209 J	2300	24000	110
Hexachlorobenzene	118-74-1	ND	ND	NA	ND	ND	ND	ND	ND	0.3	1	0.2
Hexochlorobutadiene	87-68-3	ND	ND	NA	ND	ND	ND	ND	ND	6	25	0.6
Hexachlorocyclopentadiene	77-47-4	ND	ND	NA	ND	ND	ND	ND	ND	45	110	210
Hexachloroethane	67-72-1	ND	ND	NA	ND	ND	ND	ND	ND	35	140	0.2
Indeno(1,2,3-cd)pyrene	193-39-5	0.152	0.0317 J	NA	ND	0.0497	0.433	0.0214 J	0.0919	0.6	2	5
Isophorone	78-59-1	ND	ND	NA	ND	ND	ND	ND	ND	510	2000	0.2
N-Nitro-Di-n-propylamine	--	ND	ND	NA	ND	ND	ND	ND	ND	0.2	0.3	0.2
N-Nitrosodimethylamine	62-75-9	ND	ND	NA	ND	ND	ND	ND	ND	0.7	0.7	0.7
N-Nitrosodiphenylamine	86-30-6	ND	ND	NA	ND	ND	ND	ND	ND	99	390	0.2
Naphthalene	91-20-3	ND	ND	NA	ND	0.0324 J	ND	ND	0.0508	6	17	16
Nitrobenzene	98-95-3	ND	ND	NA	ND	ND	ND	ND	ND	31	340	0.2
Pentachlorophenol	87-86-5	ND	ND	NA	ND	ND	ND	ND	ND	3	10	0.3
Phenanthrene	85-01-8	2.39	0.193	NA	0.0714	0.0709	0.202	0.0709	0.0796	--	300000	--
Pyrene	129-00-0	0.825	0.143	NA	0.0292 J	0.105	0.796	0.122	0.211	1700	18000	550
TSVOC	--	9.0355	1.0226	NA	1.2267	0.8124	5.8514	0.6053	1.7714	10,000*	10,000*	10,000*
TISVOC	--	238 J	55.3 J	NA	49 J	63.93 J	5.13 J	10.72 J	47.12 J	10,000*	10,000*	10,000*

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
TSVOC: Targeted Semi-Volatile Organic Compounds
TISVOC: Tentatively Identified Semi-Volatile Organic Compounds
0.221 Concentration in excess of the most stringent applicable NJDEP SRS
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
*: NJDEP Guidance Value

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	HF-5	LD-3	LD-1A	HF-NWA	HF-NWB	HF-NWC	HF-NWD	LD-4	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-9	JA28754-10	JA28754-11	JA28754-12	JA28754-13	JA28754-14	JA28754-15	JA28754-17			
Date Collected		9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		6.5-7.0	1.5-2.0	4.5-5.0	2.0-2.5	6.5-7.0	11.5-12.0	18.0-18.5	2.5-3.0			
Semi-Volatile Organic Compounds (SVOC), mg/kg												
1,2,4-Trichlorobenzene	120-82-1	ND	ND	ND	ND	ND	ND	ND	ND	73	820	0.4
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	ND	ND	ND	ND	ND	5300	59000	11
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	ND	ND	ND	ND	ND	5300	59000	12
1,4-Dichlorobenzene	106-46-7	ND	ND	ND	ND	ND	ND	ND	ND	5	13	1
2,4,6-Trichlorophenol	88-06-2	ND	ND	ND	ND	ND	ND	ND	ND	19	74	0.2
2,4-Dichlorophenol	120-83-2	ND	ND	ND	ND	ND	ND	ND	ND	180	2100	0.2
2,4-Dimethylphenol	105-67-9	ND	ND	ND	ND	ND	ND	ND	ND	1,200	14,000	0.7
2,4-Dinitrophenol	51-28-5	ND	ND	ND	ND	ND	ND	ND	ND	120	1400	0.3
2,4-Dinitrotoluene	121-14-2	ND	ND	ND	ND	ND	ND	ND	ND	0.7	3	--
2,6-Dinitrotoluene	606-20-2	ND	ND	ND	ND	ND	ND	ND	ND	0.7	3	--
2-Chloronapthalene	91-58-7	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
2-Chlorophenol	95-57-8	ND	ND	ND	ND	ND	ND	ND	ND	310	2200	0.5
2-Nitrophenol	88-75-5	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
3,3-Dichlorobenzidine	91-94-1	ND	ND	ND	ND	ND	ND	ND	ND	1	4	0.2
4-Bromophenyl-phenylether	--	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
4-Chloro-3-methylphenol	59-50-7	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
4-Chloroaniline	106-47-8	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
4-Nitrophenol	100-02-7	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
Acenaphthene	83-32-9	ND	0.16	0.0229 J	0.6	0.0306 J	0.0201 J	ND	0.325	3400	37000	74
Acenaphthylene	71-55-6	ND	0.0129 J	0.122	ND	ND	ND	ND	ND	--	300000	--
Anthracene	120-12-7	ND	0.348	0.197	0.686	ND	ND	ND	0.467	17000	30000	1500
Benzidine	92-87-5	ND	ND	ND	ND	ND	ND	ND	ND	0.7	0.7	0.7
Benzo(a)anthracene	56-55-3	ND	0.462	**0.671**	**0.728**	ND	ND	ND	**1.15**	0.6	2	0.5
Benzo(a)pyrene	50-32-8	ND	**0.4**	**0.874**	**0.513**	ND	ND	ND	**1.08**	0.2	0.2	0.2
Benzo(b)fluoranthene	205-99-2	ND	0.419	**0.844**	**0.694**	ND	ND	ND	**1.08**	0.6	2	2
Benzo(g,h,i)perylene	191-24-2	ND	0.222	0.655	0.337	ND	ND	ND	0.776	380000	30000	--
Benzo(k)fluoranthene	207-08-9	ND	0.277	0.57	0.307	ND	ND	ND	0.687	6	23	16
bis(2-Chloroethoxy) methane	111-91-1	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
bis(2-Chloroethyl)ether	111-44-4	ND	ND	ND	ND	ND	ND	ND	ND	0.4	2	0.2
bis(2-Chloroisopropyl)ether	39638-32-9	ND	ND	ND	ND	ND	ND	ND	ND	23	67	3
bis-(2-Ethylhexyl)phthalate	117-81-7	ND	ND	0.608	ND	0.231	0.0517 J	ND	ND	35	140	790
Butylbenzylphthalate	85-68-7	ND	ND	ND	ND	ND	ND	ND	ND	1200	14000	150
Chrysene	218-01-9	ND	0.491	0.611	0.858	ND	ND	ND	1.06	62	230	52
Di-n-butylphthalate	84-74-2	ND	ND	ND	ND	ND	ND	ND	ND	2400	27000	620
Di-n-octylphthalate	75-65-0	ND	ND	ND	ND	ND	ND	ND	ND	6100	68000	3300
Dibenzo(a,h)anthracene	53-70-3	ND	0.142	**0.247**	0.176	ND	ND	ND	**0.32**	0.2	0.2	0.5
Diethylphthalate	84-66-2	ND	ND	ND	ND	ND	ND	ND	ND	49000	550000	57
Dimethylphthalate	131-11-3	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
Fluoranthene	206-44-0	ND	1.13	1.05	0.882	0.0369 J	0.0341 J	ND	2.25	2300	24000	840
Fluorene	86-73-7	0.118 J	0.208	0.0278 J	0.989	0.0247 J	ND	ND	0.264	2300	24000	110
Hexachlorobenzene	118-74-1	ND	ND	ND	ND	ND	ND	ND	ND	0.3	1	0.2
Hexochlorobutadiene	87-68-3	ND	ND	ND	ND	ND	ND	ND	ND	6	25	0.6
Hexachlorocyclopentadiene	77-47-4	ND	ND	ND	ND	ND	ND	ND	ND	45	110	210
Hexachloroethane	67-72-1	ND	ND	ND	ND	ND	ND	ND	ND	35	140	0.2
Indeno(1,2,3-cd)pyrene	193-39-5	ND	0.244	**0.62**	0.335	ND	ND	ND	**0.677**	0.6	2	5
Isophorone	78-59-1	ND	ND	ND	ND	ND	ND	ND	ND	510	2000	0.2
N-Nitro-Di-n-propylamine	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	0.3	0.2
N-Nitrosodimethylamine	62-75-9	ND	ND	ND	ND	ND	ND	ND	ND	0.7	0.7	0.7
N-Nitrosodiphenylamine	86-30-6	ND	ND	ND	ND	ND	ND	ND	ND	99	390	0.2
Naphthalene	91-20-3	ND	0.353	0.06	0.694	ND	ND	ND	0.215	6	17	16
Nitrobenzene	98-95-3	ND	ND	ND	ND	ND	ND	ND	ND	31	340	0.2
Pentachlorophenol	87-86-5	ND	ND	ND	ND	ND	ND	ND	ND	3	10	0.3
Phenanthrene	85-01-8	0.208 J	1.25	0.266	4.35	0.0375 J	0.0337 J	ND	1.45	--	300000	--
Pyrene	129-00-0	0.132 J	0.851	0.937	1.7	0.0359 J	0.0318 J	ND	1.74	1700	18000	550
TSVOC	--	0.458	6.9699	7.3327	13.849	0.3966	0.1714	ND	13.541	10,000*	10,000*	10,000*
TISVOC	--	342.2 J	44.52 J	98.5 J	281.6 J	50.77 J	50.94 J	3.05 J	86.3 J	10,000*	10,000*	10,000*

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
TSVOC: Targeted Semi-Volatile Organic Compounds
TISVOC: Tentatively Identified Semi-Volatile Organic Compounds
0.221 Concentration in excess of the most stringent applicable NJDEP SRS
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
*: NJDEP Guidance Value

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	HF-6	STG-1	HF-7	TRENCH-1	STG-2	STG-3	LD-5	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-18	JA28754-19	JA28754-20	JA28754-21	JA28754-22	JA28754-23	JA28754-24			
Date Collected		9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		10.5-11.0	1.5-2.0	16.0-16.5	5.5-6.0	10.0-10.5	2.5-3.0	10.0-10.5			
Semi-Volatile Organic Compounds (SVOC), mg/kg											
1,2,4-Trichlorobenzene	120-82-1	ND	ND	ND	ND	ND	ND	ND	73	820	0.4
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	ND	ND	ND	ND	5300	59000	11
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	ND	ND	ND	ND	5300	59000	12
1,4-Dichlorobenzene	106-46-7	ND	ND	ND	ND	ND	ND	ND	5	13	1
2,4,6-Trichlorophenol	88-06-2	ND	ND	ND	ND	ND	ND	ND	19	74	0.2
2,4-Dichlorophenol	120-83-2	ND	ND	ND	ND	ND	ND	ND	180	2100	0.2
2,4-Dimethylphenol	105-67-9	ND	ND	ND	ND	ND	ND	ND	1,200	14,000	0.7
2,4-Dinitrophenol	51-28-5	ND	ND	ND	ND	ND	ND	ND	120	1400	0.3
2,4-Dinitrotoluene	121-14-2	ND	ND	ND	ND	ND	ND	ND	0.7	3	--
2,6-Dinitrotoluene	606-20-2	ND	ND	ND	ND	ND	ND	ND	0.7	3	--
2-Chloronapthalene	91-58-7	ND	ND	ND	ND	ND	ND	ND	--	--	--
2-Chlorophenol	95-57-8	ND	ND	ND	ND	ND	ND	ND	310	2200	0.5
2-Nitrophenol	88-75-5	ND	ND	ND	ND	ND	ND	ND	--	--	--
3,3-Dichlorobenzidine	91-94-1	ND	ND	ND	ND	ND	ND	ND	1	4	0.2
4-Bromophenyl-phenylether	--	ND	ND	ND	ND	ND	ND	ND	--	--	--
4-Chloro-3-methylphenol	59-50-7	ND	ND	ND	ND	ND	ND	ND	--	--	--
4-Chloroaniline	106-47-8	ND	ND	ND	ND	ND	ND	ND	--	--	--
4-Chlorophenyl-phenylether	7005-72-3	ND	ND	ND	ND	ND	ND	ND	--	--	--
4-Nitrophenol	100-02-7	ND	ND	ND	ND	ND	ND	ND	--	--	--
Acenaphthene	83-32-9	0.0504	ND	ND	1.14	0.434	ND	0.776	3400	37000	74
Acenaphthylene	71-55-6	ND	ND	ND	0.0759	ND	ND	0.063	--	300000	--
Anthracene	120-12-7	ND	ND	0.0586	1.88	0.111	0.0162 J	0.414	17000	30000	1500
Benzidine	92-87-5	ND	ND	ND	ND	ND	ND	ND	0.7	0.7	0.7
Benzo(a)anthracene	56-55-3	0.0198 J	0.0190 J	0.152	**1.8**	0.0588	0.0349 J	**0.624**	0.6	2	0.5
Benzo(a)pyrene	50-32-8	ND	0.0154 J	0.136	**1.54**	0.0395 J	0.0443	**0.514**	0.2	0.2	0.2
Benzo(b)fluoranthene	205-99-2	ND	0.0168 J	0.0914	1.19	0.0612	0.0573	0.594	0.6	2	2
Benzo(g,h,i)perylene	191-24-2	ND	ND	0.0696	0.796	0.0263 J	0.0463	0.253	380000	30000	--
Benzo(k)fluoranthene	207-08-9	ND	ND	0.0801	1.02	ND	0.0303 J	0.12	6	23	16
bis(2-Chloroethoxy) methane	111-91-1	ND	ND	ND	ND	ND	ND	ND	--	--	--
bis(2-Chloroethyl)ether	111-44-4	ND	ND	ND	ND	ND	ND	ND	0.4	2	0.2
bis(2-Chloroisopropyl)ether	108-60-1	ND	ND	ND	ND	ND	ND	ND	23	67	3
bis-(2-Ethylhexyl)phthalate	117-81-7	ND	ND	ND	0.394	ND	0.563	ND	35	140	790
Butylbenzylphthalate	85-68-7	ND	ND	ND	ND	ND	0.0696 J	ND	1200	14000	150
Chrysene	218-01-9	0.0175 J	0.0244 J	0.165	2.05	0.085	0.0653	0.694	62	230	52
Di-n-butylphthalate	84-74-2	ND	ND	ND	ND	0.121	0.0549 J	0.212	2400	27000	620
Di-n-octylphthalate	75-65-0	ND	ND	ND	ND	ND	ND	ND	6100	68000	3300
Dibenzo(a,h)anthracene	53-70-3	ND	ND	0.0428	0.293	ND	ND	0.113	0.2	0.2	0.5
Diethylphthalate	84-66-2	ND	ND	ND	0.129	ND	ND	ND	49000	550000	57
Dimethylphthalate	131-11-3	ND	ND	ND	ND	ND	ND	2.78	--	--	--
Fluoranthene	206-44-0	0.0393 J	0.0412	0.318	5.76	0.237	0.0718	1.55	2300	24000	840
Fluorene	86-73-7	ND	ND	ND	1.03	0.117	ND	0.278	2300	24000	110
Hexachlorobenzene	118-74-1	ND	ND	ND	ND	ND	ND	ND	0.3	1	0.2
Hexochlorobutadiene	87-68-3	ND	ND	ND	ND	ND	ND	ND	6	25	0.6
Hexachlorocyclopentadiene	77-47-4	ND	ND	ND	ND	ND	ND	ND	45	110	210
Hexachloroethane	67-72-1	ND	ND	ND	ND	ND	ND	ND	35	140	0.2
Indeno(1,2,3-cd)pyrene	193-39-5	ND	ND	0.0675	**0.923**	0.0263 J	0.0415	0.288	0.6	2	5
Isophorone	78-59-1	ND	ND	ND	ND	ND	ND	ND	510	2000	0.2
N-Nitro-Di-n-propylamine	621-64-7	ND	ND	ND	ND	ND	ND	ND	0.2	0.3	0.2
N-Nitrosodimethylamine	62-75-9	ND	ND	ND	ND	ND	ND	ND	0.7	0.7	0.7
N-Nitrosodiphenylamine	86-30-6	ND	ND	ND	ND	ND	ND	ND	99	390	0.2
Naphthalene	91-20-3	ND	ND	ND	0.432	0.413	0.072	0.342	6	17	16
Nitrobenzene	98-95-3	ND	ND	ND	ND	ND	ND	ND	31	340	0.2
Pentachlorophenol	87-86-5	ND	ND	ND	ND	ND	ND	ND	3	10	0.3
Phenanthrene	85-01-8	0.0321 J	0.0254 J	0.201	8.47	0.472	0.0363	1.8	--	300000	--
Pyrene	129-00-0	0.0407 J	0.0364	0.339	3.13	0.216	0.0825	1.53	1700	18000	550
TSVOC	--	0.1998	0.1786	1.721	32.0529	2.4181	1.2862	12.945	10,000*	10,000*	10,000*
TISVOC	--	42.11 J	0.160 J	26.95 J	47.35 J	72.7 J	43.67 J	86.6 J	10,000*	10,000*	10,000*

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
TSVOC: Targeted Semi-Volatile Organic Compounds
TISVOC: Tentatively Identified Semi-Volatile Organic Compounds
1.42 Concentration in excess of the most stringent applicable NJDEP SRS
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
*: NJDEP Guidance Value

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	UST-DG/HF-1	HF-2	TRANS-1	HF-3	TT-1	LD-1	HF-4	LD-2	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-1	JA28754-2	JA28754-3	JA28754-4	JA28754-5	JA28754-6	JA28754-7	JA28754-8			
Date Collected		9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		6.5-7.0	11.0-12.5	0.5-1.0	7.0-7.5	1.5-2.0	1.5-2.0	11.0-11.5	1.5-2.0			
PCBs & Pesticides, mg/kg												
Aldrin	309-00-2	ND	ND	NA	ND	ND	ND	ND	ND	0.04	0.2	0.1
alpha-BHC	319-84-6	ND	ND	NA	ND	ND	ND	ND	ND	0.1	0.5	0.002
beta-BHC	319-85-7	ND	ND	NA	ND	ND	ND	ND	ND	0.4	2	0.002
Chlordane	57-74-9	ND	ND	NA	ND	ND	ND	ND	ND	0.2	1	0.03
delta-BHC	--	ND	ND	NA	ND	ND	ND	ND	ND	--	--	--
Dieldrin	7440-48-4	ND	ND	NA	ND	ND	ND	ND	ND	0.04	0.2	0.003
Endosulfan 1	959-98-8	ND	ND	NA	ND	ND	ND	ND	ND	470	6800	2
Endosulfan II	7439-92-1	ND	ND	NA	ND	ND	ND	ND	ND	470	6800	2
Endosulfan sulfate	1031-07-8	ND	ND	NA	ND	ND	ND	ND	ND	470	6800	1
Endrin	79-20-9	ND	ND	NA	ND	ND	ND	ND	ND	23	340	0.6
Endrin aldehyde	91-58-7	ND	ND	NA	ND	ND	0.0034	ND	ND	--	--	--
gamma-BHC (Lindane)	88-75-5	ND	ND	NA	ND	ND	ND	ND	ND	0.4	2	0.002
Heptachlor	76-44-8	ND	ND	NA	ND	ND	ND	ND	ND	0.1	0.7	0.3
Heptachlorepoxide	1024-57-3	ND	ND	NA	ND	ND	ND	ND	ND	0.07	0.3	0.009
Methoxychlor	72-43-5	ND	0.0094	NA	ND	ND	ND	ND	ND	390	5700	100
4,4-DDD	91-57-6	ND	ND	NA	ND	ND	ND	ND	0.0023	3	13	3
4,4-DDE	72-55-9	ND	ND	NA	ND	ND	ND	ND	ND	2	9	12
4,4-DDT	50-29-3	0.0025	ND	NA	ND	ND	0.0075	ND	ND	2	8	7
Toxaphene	71-55-6	ND	ND	NA	ND	ND	ND	ND	ND	0.6	3	0.2
Aroclor-1016	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1221	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1232	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1242	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1248	100-02-7	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1254	132-64-9	ND	ND	ND	ND	ND	ND	ND	0.0948	0.2	1	0.2
Aroclor-1260	--	ND	ND	ND	ND	ND	ND	ND	0.0598	0.2	1	0.2
Total PCBs	--	ND	ND	ND	ND	ND	ND	ND	0.1546	0.2	1	0.2
Metals, mg/kg												
Antimony	7440-36-0	3.8	**8.7**	NA	ND	5.4	3.1	4.2	ND	31	450	6
Arsenic	7440-38-2	13.3	**56.6**	NA	9.8	**51.7**	8.9	8.1	5	19	19	19
Beryllium	105-67-9	**0.82**	**0.52**	NA	**0.98**	**0.91**	**0.82**	ND	**1.5**	16	140	0.5
Cadmium	7440-43-9	0.66	**3.4**	NA	0.62	**5.7**	**1.9**	0.58	**2.6**	78	78	1
Chromium	7440-47-3	15.8	119	NA	14.8	63.4	25.2	59.6	22.4	--	--	--
Copper	7440-50-8	177	167	NA	101	219	96.4	79.6	138	3,100	45,000	7,300
Lead	7439-92-1	**657**	**10,800**	NA	**355**	**3,580**	**967**	**296**	**415**	400	800	59
Mercury	7439-97-6	**0.41**	**5.7**	NA	**0.4**	**14.4**	**1.1**	**1.9**	**0.85**	23	65	0.1
Nickel	1634-04-4	18	**33.7**	NA	16.6	**70**	12.8	10.2	21	1,600	23,000	31
Selenium	91-58-7	2.8	ND	NA	2.5	3.5	ND	2.2	ND	390	5,700	7
Silver	7440-22-4	**1.4**	ND	NA	ND	ND	ND	ND	ND	390	5,700	1
Thallium	71-55-6	ND	ND	NA	ND	ND	ND	ND	ND	5	79	3
Zinc	7440-66-6	540	**1,270**	NA	251	**6,730**	**966**	530	348	23,000	110,000	600
Cyanide	57-12-5	ND	5.3	NA	ND	6	1.8	0.58	ND	1,600	23,000	13
Phenols	108-95-2	3.9	ND	NA	ND	ND	ND	ND	ND	18,000	210,000	5

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
7.9 Concentration in excess of the most stringent applicable NJDEP SCC
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	HF-5	LD-3	LD-1A	HF-NWA	HF-NWB	HF-NWC	HF-NWD	LD-4	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-9	JA28754-10	JA28754-11	JA28754-12	JA28754-13	JA28754-14	JA28754-15	JA28754-17			
Date Collected		9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		6.5-7.0	1.5-2.0	4.5-5.0	2.0-2.5	6.5-7.0	11.5-12.0	18.0-18.5	2.5-3.0			
PCBs & Pesticides, mg/kg												
Aldrin	309-00-2	ND	ND	ND	ND	ND	ND	ND	ND	0.04	0.2	0.1
alpha-BHC	319-84-6	ND	ND	ND	ND	ND	ND	ND	ND	0.1	0.5	0.002
beta-BHC	319-85-7	ND	ND	ND	ND	ND	ND	ND	ND	0.4	2	0.002
Chlordane	57-74-9	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.03
delta-BHC	--	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
Dieldrin	7440-48-4	ND	ND	ND	ND	ND	ND	ND	ND	0.04	0.2	0.003
Endosulfan 1	959-98-8	ND	ND	ND	ND	ND	ND	ND	ND	470	6800	2
Endosulfan II	7439-92-1	ND	ND	ND	ND	ND	ND	ND	ND	470	6800	2
Endosulfan sulfate	1031-07-8	ND	ND	ND	ND	ND	ND	ND	ND	470	6800	1
Endrin	79-20-9	ND	ND	ND	ND	ND	ND	ND	ND	23	340	0.6
Endrin aldehyde	91-58-7	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
gamma-BHC (Lindane)	88-75-5	ND	ND	ND	ND	ND	ND	ND	ND	0.4	2	0.002
Heptachlor	76-44-8	ND	ND	ND	ND	ND	ND	ND	ND	0.1	0.7	0.3
Heptachlorepoxide	1024-57-3	ND	ND	ND	ND	ND	ND	ND	ND	0.07	0.3	0.009
Methoxychlor	72-43-5	ND	ND	ND	ND	ND	ND	ND	ND	390	5700	100
4,4-DDD	91-57-6	ND	ND	ND	ND	ND	ND	ND	ND	3	13	3
4,4-DDE	72-55-9	ND	ND	ND	ND	ND	ND	ND	ND	2	9	12
4,4-DDT	50-29-3	ND	ND	ND	ND	ND	ND	ND	ND	2	8	7
Toxaphene	71-55-6	ND	ND	ND	ND	ND	ND	ND	ND	0.6	3	0.2
Aroclor-1016	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1221	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1232	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1242	--	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1248	100-02-7	ND	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1254	132-64-9	ND	ND	**1.74**	ND	**0.518**	0.171	ND	0.17	0.2	1	0.2
Aroclor-1260	--	ND	**0.506**	ND	ND	ND	ND	ND	0.0778	0.2	1	0.2
Total PCBs	--	ND	**0.506**	**1.74**	ND	**0.518**	0.171	ND	**0.2478**	0.2	1	0.2
Metals, mg/kg												
Antimony	7440-36-0	ND	3.1	ND	2.8	4.9	3.3	ND	2.5	31	450	6
Arsenic	7440-38-2	7.9	**21.9**	6	16.5	**30.3**	12.7	ND	10.1	19	19	19
Beryllium	105-67-9	**0.9**	**0.9**	**0.86**	**0.62**	**1.2**	**0.78**	**0.65**	**0.79**	16	140	0.5
Cadmium	7440-43-9	0.61	**3.5**	0.88	**6.2**	**2.1**	**1.3**	ND	1	78	78	1
Chromium	7440-47-3	15.5	51.9	28	86.2	29.1	24.3	13.3	19	--	--	--
Copper	7440-50-8	59.6	90.8	104	150	75.5	79.8	8	114	3,100	45,000	7,300
Lead	7439-92-1	**166**	**1,610**	**455**	**2,470**	**1,680**	**1,520**	4.1	**494**	400	800	59
Mercury	7439-97-6	**0.24**	**5.3**	**0.93**	**4.7**	**1.5**	**3.3**	ND	**0.58**	23	65	0.1
Nickel	1634-04-4	21.6	15.5	11.9	15	20.6	14.5	7.8	22.7	1,600	23,000	31
Selenium	91-58-7	2.8	ND	ND	ND	**20.7**	**3.7**	ND	ND	390	5,700	7
Silver	7440-22-4	ND	ND	ND	ND	ND	ND	ND	ND	390	5,700	1
Thallium	71-55-6	ND	ND	ND	ND	ND	ND	ND	ND	5	79	3
Zinc	7440-66-6	181	**1,850**	363	**2,400**	**1,130**	581	29.5	**917**	23,000	110,000	600
Cyanide	57-12-5	ND	1.7	0.83	2.2	ND	ND	ND	ND	1,600	23,000	13
Phenols	108-95-2	ND	ND	ND	ND	ND	ND	ND	3.9	18,000	210,000	5

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
7.9 Concentration in excess of the most stringent applicable NJDEP SCC
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

TABLE 3
SOIL ANALYTICAL RESULTS (SEPTEMBER 2009)
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
BLOCK 2688, LOTS 1, 3 - 15 & 51 - 58
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	HF-6	STG-1	HF-7	TRENCH-1	STG-2	STG-3	LD-5	Residential Direct Contact SRS (mg/kg)	Non-Residential Direct Contact SRS (mg/kg)	Impact to Ground water SRS (mg/kg)
Laboratory ID.#		JA28754-18	JA28754-19	JA28754-20	JA28754-21	JA28754-22	JA28754-23	JA28754-24			
Date Collected		9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009	9/23/2009			
Sampling Depth (ft.)		10.5-11.0	1.5-2.0	16.0-16.5	5.5-6.0	10.0-10.5	2.5-3.0	10.0-10.5			
PCBs & Pesticides, mg/kg											
Aldrin	309-00-2	ND	ND	ND	ND	ND	ND	ND	0.04	0.2	0.1
alpha-BHC	319-84-6	ND	ND	ND	ND	ND	ND	ND	0.1	0.5	0.002
beta-BHC	319-85-7	ND	ND	ND	ND	ND	ND	ND	0.4	2	0.002
Chlordane	57-74-9	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.03
delta-BHC	--	ND	ND	ND	ND	ND	ND	ND	--	--	--
Dieldrin	7440-48-4	ND	ND	ND	ND	ND	ND	ND	0.04	0.2	0.003
Endosulfan 1	959-98-8	ND	ND	ND	ND	ND	ND	ND	470	6800	2
Endosulfan II	7439-92-1	ND	ND	ND	ND	ND	ND	ND	470	6800	2
Endosulfan sulfate	1031-07-8	ND	ND	ND	ND	ND	ND	ND	470	6800	1
Endrin	79-20-9	ND	ND	ND	ND	ND	ND	ND	23	340	0.6
Endrin aldehyde	91-58-7	ND	ND	ND	ND	ND	ND	ND	--	--	--
gamma-BHC (Lindane)	88-75-5	ND	ND	ND	ND	ND	ND	ND	0.4	2	0.002
Heptachlor	76-44-8	ND	ND	ND	ND	ND	ND	ND	0.1	0.7	0.3
Heptachlorepoxide	1024-57-3	ND	ND	ND	ND	ND	ND	ND	0.07	0.3	0.009
Methoxychlor	72-43-5	ND	ND	ND	ND	ND	ND	ND	390	5700	100
4,4-DDD	91-57-6	ND	ND	ND	0.0136	ND	0.0091	ND	3	13	3
4,4-DDE	72-55-9	ND	ND	ND	ND	ND	0.0075	ND	2	9	12
4,4-DDT	50-29-3	ND	ND	ND	ND	ND	ND	ND	2	8	7
Toxaphene	71-55-6	ND	ND	ND	ND	ND	ND	ND	0.6	3	0.2
Aroclor-1016	--	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1221	--	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1232	--	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1242	--	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1248	100-02-7	ND	ND	ND	ND	ND	ND	ND	0.2	1	0.2
Aroclor-1254	132-64-9	ND	ND	ND	**0.266**	0.105	**0.223**	ND	0.2	1	0.2
Aroclor-1260	--	ND	ND	ND	0.114	**0.226**	0.0895	0.129	0.2	1	0.2
Total PCBs	--	ND	ND	ND	**0.38**	**0.331**	**0.3125**	0.129	0.2	1	0.2
Metals, mg/kg											
Antimony	7440-36-0	ND	ND	ND	ND	**12.4**	2.2	5.7	31	450	6
Arsenic	7440-38-2	9.8	2.4	7.5	7.7	**40.1**	11.3	**42**	19	19	19
Beryllium	105-67-9	**0.92**	**0.95**	ND	**0.82**	**1.6**	**0.91**	ND	16	140	0.5
Cadmium	7440-43-9	ND	ND	ND	**2.6**	**7.3**	**4.7**	**2.8**	78	78	1
Chromium	7440-47-3	19.9	14.6	21.3	50.1	173	32	94.9	--	--	--
Copper	7440-50-8	97	20.2	1,650	77.6	330	107	162	3,100	45,000	7,300
Lead	7439-92-1	**627**	**99.6**	**59.4**	**522**	**3,420**	**1,510**	**4,420**	400	800	59
Mercury	7439-97-6	**3.7**	**0.18**	**0.16**	**1.2**	**4.2**	**1.2**	**3.8**	23	65	0.1
Nickel	1634-04-4	24.9	10.1	17.5	21.4	**43.4**	18.1	15.4	1,600	23,000	31
Selenium	91-58-7	3.8	ND	ND	ND	ND	ND	ND	390	5,700	7
Silver	7440-22-4	ND	ND	ND	ND	ND	ND	**2.2**	390	5,700	1
Thallium	71-55-6	ND	ND	ND	ND	ND	ND	ND	5	79	3
Zinc	7440-66-6	352	79.2	290	**746**	6,560	**1,390**	**4,510**	23,000	110,000	600
Cyanide	57-12-5	3.2	0.32	0.39	ND	1	ND	0.87	1,600	23,000	13
Phenols	108-95-2	ND	ND	ND	ND	**6.8**	ND	ND	18,000	210,000	5

Legend:

mg/kg: milligrams per kilogram
SRS: NJDEP Soil Remediation Standard
NA: Not Analyzed
ND: Not Detected above Laboratory Reported Detection Limits
9.6 Concentration in excess of the most stringent applicable NJDEP SCC
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

TABLE 4
GROUNDWATER LABORATORY RESULTS
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	TW-1	TW-2	GWFB	Trip Blank	NJDEP GQC (µg/l)
Laboratory ID.#		JA28677-1	JA28677-2	JA28677-3	JA28677-4	
Date Collected		9/22/2009	9/22/2009	9/22/2009	9/22/2009	
Total Petroleum Hydrocarbon (TPH), µg/l						
TPH	--	48,500	2,570	ND	NA	--
Volatile Organic Compounds (VOC), µg/l						
1,1,1-Trichloroethane	71-55-6	ND	ND	ND	ND	30
1,1,2,2-Tetrachloroethane	79-34-5	ND	ND	ND	ND	1
1,1,2-Trichloroethane	79-00-5	ND	ND	ND	ND	3
1,1-Dichloroethane	75-34-3	ND	ND	ND	ND	50
1,1-Dichloroethene	75-35-4	ND	ND	ND	ND	1
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	ND	600
1,2-Dichloroethane	107-06-2	ND	ND	ND	ND	2
1,2-Dichloropropane	78-87-5	ND	ND	ND	ND	1
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	ND	600
1,4-Dichlorobenzene	106-46-7	ND	ND	ND	ND	75
2-Chloroethyl vinyl ether	110-75-8	ND	ND	ND	ND	100^
Acrolein	107-02-8	ND	ND	ND	ND	5
Acrylonitrile	107-13-1	ND	ND	ND	ND	2
Benzene	71-43-2	4.3	1.2 J	ND	ND	1
Bromodichloromethane	75-27-4	ND	ND	ND	ND	1
Bromoform	75-25-2	ND	ND	ND	ND	4
Bromomethane	74-83-9	ND	ND	ND	ND	10
Carbon tetrachloride	56-23-5	ND	ND	ND	ND	1
Chlorobenzene	108-90-7	ND	1.1 J	ND	ND	50
Chloroethane	75-00-3	1.8	ND	ND	ND	100^
Chloroform	67-66-3	ND	0.74 J	ND	ND	70
Chloromethane	74-87-3	2.9	ND	ND	ND	100^

Legend:

µg/l: micrograms per liter, ppb
GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers
NA: Not Available
ND: Not Detected above Laboratory Reported Detection Limits
TVOC: Total Volatile Organic Compounds
TIVOC: Tentatively Identified Volatile Organic Compounds
10: Concentration in excess of NJDEP GQC
^: Interim Specific GQC
*: Interim Generic GQC
J: The analyte was positively identified; the associated numerical value is the approximate concentrati

TABLE 4
GROUNDWATER LABORATORY RESULTS
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	TW-1	TW-2	GWFB	Trip Blank	NJDEP GQC (µg/l)
Laboratory ID.#		JA28677-1	JA28677-2	JA28677-3	JA28677-4	
Date Collected		9/22/2009	9/22/2009	9/22/2009	9/22/2009	
Total Petroleum Hydrocarbon (TPH), µg/l						
cis-1,2-Dichloroethene	156-59-2	ND	ND	ND	ND	70
cis-1,3-Dichloropropene	10061-01-5	ND	ND	ND	ND	100^
Dibromochloromethane	124-48-1	ND	ND	ND	ND	1
Dichlorodifluoromethane	75-71-8	ND	ND	ND	ND	1000
Ethylbenzene	100-41-4	3.6	ND	ND	ND	700
Methylene chloride	75-09-2	ND	ND	ND	ND	3
Tetrachloroethene	127-18-4	ND	ND	ND	ND	1
Toluene	108-88-3	3.3	ND	ND	ND	1000
trans-1,2-Dichloroethene	156-60-5	ND	ND	ND	ND	100
trans-1,3-Dichloropropene	10061-02-6	ND	ND	ND	ND	100^
Trichloroethene	79-01-6	ND	ND	ND	ND	1
Trichlorofluoromethane	75-69-4	ND	ND	ND	ND	2000
Vinyl chloride	75-01-4	ND	ND	ND	ND	1
Xylene (total)	1330-20-7	16.1	ND	ND	ND	1000
TVOC	--	32	3	ND	ND	500*
TIVOC	--	2,612	32 J	ND	ND	500*

Legend:

µg/l: micrograms per liter, ppb
GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers
NA: Not Available
ND: Not Detected above Laboratory Reported Detection Limits
TVOC: Total Volatile Organic Compounds
TIVOC: Tentatively Identified Volatile Organic Compounds
10 Concentration in excess of NJDEP GQC
^: Interim Specific GQC
*: Interim Generic GQC
J: The analyte was positively identified; the associated numerical value is the approximate concentrati

TABLE 4
GROUNDWATER LABORATORY RESULTS
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	TW-1	TW-2	GWFB	Trip Blank	NJDEP GQC (µg/l)
Laboratory ID.#		JA28677-1	JA28677-2	JA28677-3	JA28677-4	
Date Collected		9/22/2009	9/22/2009	9/22/2009	9/22/2009	
Semi-Volatile Organic Compounds (SVOC), µg/l						
1,2,4-Trichlorobenzene	120-82-1	ND	ND	ND	NA	9
1,2-Dichlorobenzene	95-50-1	ND	ND	ND	NA	600
1,2-Diphenylhydrazine	122-66-7	ND	ND	ND	NA	20
1,3-Dichlorobenzene	541-73-1	ND	ND	ND	NA	600
1,4-Dichlorobenzene	106-46-7	ND	ND	ND	NA	75
2,4,6-Trichlorophenol	88-06-2	ND	ND	ND	NA	20
2,4-Dichlorophenol	120-83-2	ND	ND	ND	NA	20
2,4-Dimethylphenol	105-67-9	127	ND	ND	NA	100
2,4-Dinitrophenol	51-28-5	ND	ND	ND	NA	40
2,4-Dinitrotoluene	121-14-2	ND	ND	ND	NA	10
2,6-Dinitrotoluene	606-20-2	ND	ND	ND	NA	10
2-Chloronaphthalene	91-58-7	ND	ND	ND	NA	600
2-Chlorophenol	95-57-8	ND	ND	ND	NA	40
2-Nitrophenol	88-75-5	ND	ND	ND	NA	100^
3,3'-Dichlorobenzidine	91-94-1	ND	ND	ND	NA	30
4,6-Dinitro-o-cresol	534-52-1	ND	ND	ND	NA	100^
4-Bromophenyl phenyl ether	101-55-3	ND	ND	ND	NA	100^
4-Chloro-3-methyl phenol	59-50-7	ND	ND	ND	NA	100^
4-Chloroaniline	106-47-8	ND	3.6 J	ND	NA	30
4-Chlorophenyl phenyl ether	7005-72-3	ND	ND	ND	NA	100^
Acenaphthene	83-32-9	4.55	0.419	ND	NA	400

Legend:

µg/l: micrograms per liter, ppb
GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers
NA: Not Available
ND: Not Detected above Laboratory Reported Detection Limits
TSVOC: Total Semi-Volatile Organic Compounds
TISVOC: Tentatively Identified Semi-Volatile Organic Compounds
10 Concentration in excess of NJDEP GQC
^: Interim Specific GQC
*: Interim Generic GQC
J: The analyte was positively identified; the associated numerical value is the approximate concer

TABLE 4
GROUNDWATER LABORATORY RESULTS
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	TW-1	TW-2	GWFB	Trip Blank	NJDEP GQC (µg/l)
Laboratory ID.#		JA28677-1	JA28677-2	JA28677-3	JA28677-4	
Date Collected		9/22/2009	9/22/2009	9/22/2009	9/22/2009	
Semi-Volatile Organic Compounds (SVOC), µg/l						
4-Nitrophenol	100-02-7	ND	ND	ND	NA	100^
Acenaphthylene	208-96-8	ND	0.184	ND	NA	100^
Anthracene	120-12-7	4.42	0.642	ND	NA	2000
Benzidine	92-87-5	ND	ND	ND	NA	20
Benzo(a)anthracene	56-55-3	4.75	1.73	ND	NA	0.1
Benzo(a)pyrene	50-32-8	2.82	0.733	ND	NA	0.1
Benzo(b)fluoranthene	205-99-2	3.6	1.75	ND	NA	0.2
Benzo(g,h,i)perylene	191-24-2	0.832	0.322	ND	NA	100^
Benzo(k)fluoranthene	207-08-9	2	0.239	ND	NA	0.5
bis(2-Chloroethoxy)methane	111-91-1	ND	ND	ND	NA	100^
bis(2-Chloroethyl)ether	111-44-4	ND	ND	ND	NA	7
bis(2-Chloroisopropyl)ether	108-60-1	ND	ND	ND	NA	300
bis(2-Ethylhexyl)phthalate	117-81-7	3.2	ND	ND	NA	3
Butyl benzyl phthalate	85-68-7	ND	ND	ND	NA	100
Chrysene	218-01-9	2.51	0.637	ND	NA	5
Dibenzo(a,h)anthracene	53-70-3	0.217	ND	ND	NA	0.3
Diethyl phthalate	84-66-2	ND	ND	ND	NA	6000
Dimethyl phthalate	131-11-3	ND	ND	ND	NA	100^
Di-n-butyl phthalate	84-74-2	ND	ND	ND	NA	700
Di-n-octyl phthalate	117-84-0	ND	ND	ND	NA	100

Legend:

µg/l: micrograms per liter, ppb
GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers
NA: Not Available
ND: Not Detected above Laboratory Reported Detection Limits
TSVOC: Total Semi-Volatile Organic Compounds
TISVOC: Tentatively Identified Semi-Volatile Organic Compounds
10 Concentration in excess of NJDEP GQC
^: Interim Specific GQC
*: Interim Generic GQC
J: The analyte was positively identified; the associated numerical value is the approximate concer

TABLE 4
GROUNDWATER LABORATORY RESULTS
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	TW-1	TW-2	GWFB	Trip Blank	NJDEP GQC (µg/l)
Laboratory ID.#		JA28677-1	JA28677-2	JA28677-3	JA28677-4	
Date Collected		9/22/2009	9/22/2009	9/22/2009	9/22/2009	
Semi-Volatile Organic Compounds (SVOC), µg/l						
Fluoranthene	206-44-0	8.4	1.55	ND	NA	300
Fluorene	86-73-7	12.5	0.336	ND	NA	300
Hexachlorobenzene	118-74-1	ND	ND	ND	NA	0.02
Hexachlorobutadiene	87-68-3	ND	ND	ND	NA	1
Hexachlorocyclopentadiene	77-47-4	ND	ND	ND	NA	40
Hexachloroethane	67-72-1	ND	ND	ND	NA	7
Indeno(1,2,3-cd)pyrene	193-39-5	0.807	0.307	ND	NA	0.2
Isophorone	78-59-1	ND	ND	ND	NA	40
Naphthalene	91-20-3	ND	0.531	ND	NA	300
Nitrobenzene	98-95-3	ND	ND	ND	NA	6
n-Nitrosodimethylamine	62-75-9	ND	ND	ND	NA	0.8
N-Nitroso-di-n-propylamine	621-64-7	ND	ND	ND	NA	10
N-Nitrosodiphenylamine	86-30-6	ND	ND	ND	NA	10
Pentachlorophenol	87-86-5	ND	ND	ND	NA	0.3
Phenanthrene	85-01-8	24.2	2.45	ND	NA	100^
Phenol	108-95-2	ND	ND	ND	NA	2000
Pyrene	129-00-0	8.9	1.49	ND	NA	200
TSVOC	--	209.9	16.9	ND	NA	500*
TISVOC	--	2,793	663	ND	NA	500*

Legend:

µg/l: micrograms per liter, ppb
GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers
NA: Not Available
ND: Not Detected above Laboratory Reported Detection Limits
TSVOC: Total Semi-Volatile Organic Compounds
TISVOC: Tentatively Identified Semi-Volatile Organic Compounds
10 Concentration in excess of NJDEP GQC
^: Interim Specific GQC
*: Interim Generic GQC
J: The analyte was positively identified; the associated numerical value is the approximate concer

TABLE 4
GROUNDWATER LABORATORY RESULTS
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	TW-1	TW-2	GWFB	Trip Blank	NJDEP GQC (µg/l)
Laboratory ID.#		JA28677-1	JA28677-2	JA28677-3	JA28677-4	
Date Collected		9/22/2009	9/22/2009	9/22/2009	9/22/2009	
PCBs & Pesticides, µg/l						
4,4'-DDD	72-54-8	ND	ND	ND	NA	0.1
4,4'-DDE	72-55-9	ND	ND	ND	NA	0.1
4,4'-DDT	50-29-3	ND	ND	ND	NA	0.1
Aldrin	309-00-2	ND	ND	ND	NA	0.04
alpha-BHC	319-84-6	ND	ND	ND	NA	0.02
Aroclor 1016	12674-11-2	ND	ND	ND	NA	0.5
Aroclor 1221	11104-28-2	ND	ND	ND	NA	0.5
Aroclor 1232	11141-16-5	ND	ND	ND	NA	0.5
Aroclor 1242	53469-21-9	ND	ND	ND	NA	0.5
Aroclor 1248	12672-29-6	ND	ND	ND	NA	0.5
Aroclor 1254	11097-69-1	ND	ND	ND	NA	0.5
Aroclor 1260	11096-82-5	ND	ND	ND	NA	0.5
beta-BHC	319-85-7	ND	ND	ND	NA	0.04
Chlordane	12789-03-6	ND	ND	ND	NA	0.5
delta-BHC	319-86-8	ND	ND	ND	NA	100^
Dieldrin	60-57-1	ND	ND	ND	NA	0.03

Legend:

µg/l: micrograms per liter, ppb

GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers

NA: Not Available

ND: Not Detected above Laboratory Reported Detection Limits

10 Concentration in excess of NJDEP GQC

^: Interim Specific GQC

*: Interim Generic GQC

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BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
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Sample No.	CASRN #	TW-1	TW-2	GWFB	Trip Blank	NJDEP GQC (µg/l)
Laboratory ID.#		JA28677-1	JA28677-2	JA28677-3	JA28677-4	
Date Collected		9/22/2009	9/22/2009	9/22/2009	9/22/2009	
PCBs & Pesticides, µg/l						
Endosulfan sulfate	1031-07-8	ND	ND	ND	NA	40
Endosulfan-I	959-98-8	ND	ND	ND	NA	40
Endosulfan-II	33213-65-9	ND	ND	ND	NA	40
Endrin	72-20-8	ND	ND	ND	NA	2
Endrin aldehyde	7421-93-4	ND	ND	ND	NA	100^
gamma-BHC (Lindane)	58-89-9	ND	ND	ND	NA	0.03
Heptachlor	76-44-8	ND	ND	ND	NA	0.05
Heptachlor epoxide	1024-57-3	ND	ND	ND	NA	0.2
Methoxychlor	72-43-5	ND	ND	ND	NA	40
Toxaphene	8001-35-2	ND	ND	ND	NA	2

Legend:

µg/l: micrograms per liter, ppb

GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers

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Sample No.	CASRN #	TW-1	TW-2	GWFB	Trip Blank	NJDEP GQC (µg/l)
Laboratory ID.#		JA28677-1	JA28677-2	JA28677-3	JA28677-4	
Date Collected		9/22/2009	9/22/2009	9/22/2009	9/22/2009	
Metals, µg/l						
Antimony	7440-36-0	ND	8.9	ND	NA	6
Arsenic	7440-38-2	24.8	63.5	ND	NA	3
Beryllium	7440-41-7	ND	1.1	ND	NA	1
Cadmium	7440-43-9	ND	3.6	ND	NA	4
Chromium	7440-47-3	48.5	136	ND	NA	70
Copper	7440-50-8	121	428	ND	NA	1300
Lead	7439-92-1	1,580	2,980	ND	NA	5
Mercury	7439-97-6	1.9	16.3	ND	NA	2
Nickel	7440-02-0	29	114	ND	NA	100
Selenium	7782-49-2	ND	ND	ND	NA	40
Silver	7440-22-4	ND	10.7	ND	NA	40
Thallium	7440-28-0	ND	ND	ND	NA	2
Zinc	7440-66-6	678	2,140	ND	NA	2000
Phenols	108-95-2	ND	200	200	NA	--
Cyanide (free Cyanide)	57-12-5	21	21	10	NA	100

Legend:

µg/l: micrograms per liter, ppb

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NA: Not Available

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10 Concentration in excess of NJDEP GQC

TABLE 5
BASEMENT WATER LABORATORY RESULTS
1700- 1712 McCARTER HIGHWAY
BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	BW-1	BW-2	NJDEP GQC (µg/l)
Laboratory ID.#		JA27233-11	JA27233-12	
Date Collected		9/3/2009	9/3/2009	
Total Petroleum Hydrocarbon (TPH), µg/l				
TPH	--	80,000	248,000	--
Volatile Organic Compounds (VOC), µg/l				
1,1,1-Trichloroethane	71-55-6	284	3,290	30
1,1,2,2-Tetrachloroethane	79-34-5	ND	ND	1
1,1,2-Trichloroethane	79-00-5	ND	ND	3
1,1-Dichloroethane	75-34-3	198	909	50
1,1-Dichloroethene	75-35-4	7.1 J	78.2	1
1,2-Dichlorobenzene	95-50-1	19.4	65	600
1,2-Dichloroethane	107-06-2	ND	24.1	2
1,2-Dichloropropane	78-87-5	ND	ND	1
1,3-Dichlorobenzene	541-73-1	ND	ND	600
1,4-Dichlorobenzene	106-46-7	10.2	ND	75
2-Chloroethyl vinyl ether	110-75-8	ND	ND	100^
Acrolein	107-02-8	ND	ND	5
Acrylonitrile	107-13-1	ND	ND	2
Benzene	71-43-2	65.1	283	1
Bromodichloromethane	75-27-4	ND	ND	1
Bromoform	75-25-2	ND	ND	4
Bromomethane	74-83-9	ND	ND	10
Carbon tetrachloride	56-23-5	ND	ND	1
Chlorobenzene	108-90-7	ND	48.7	50
Chloroethane	75-00-3	6.1 J	67.6	100^
Chloroform	67-66-3	44	2,870	70
Chloromethane	74-87-3	ND	ND	100^

Legend:

µg/l: micrograms per liter, ppb
GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers
NA: Not Available
ND: Not Detected above Laboratory Reported Detection Limits
TVOC: Total Volatile Organic Compounds
TIVOC: Tentatively Identified Volatile Organic Compounds
10: Concentration in excess of NJDEP GQC
^: Interim Specific GQC
*: Interim Generic GQC
J: The analyte was positively identified; the associated numer

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BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	BW-1	BW-2	NJDEP GQC (µg/l)
Laboratory ID.#		JA27233-11	JA27233-12	
Date Collected		9/3/2009	9/3/2009	
Total Petroleum Hydrocarbon (TPH), µg/l				
cis-1,2-Dichloroethene	156-59-2	15.4	31.4	70
cis-1,3-Dichloropropene	10061-01-5	ND	ND	100^
Dibromochloromethane	124-48-1	ND	ND	1
Dichlorodifluoromethane	75-71-8	ND	ND	1000
Ethylbenzene	100-41-4	444	296	700
Methylene chloride	75-09-2	1,590	21,500	3
Tetrachloroethene	127-18-4	9.5 J	280	1
Toluene	108-88-3	684	4,460	1000
trans-1,2-Dichloroethene	156-60-5	ND	ND	100
trans-1,3-Dichloropropene	10061-02-6	ND	ND	100^
Trichloroethene	79-01-6	14	148	1
Trichlorofluoromethane	75-69-4	ND	ND	2000
Vinyl chloride	75-01-4	ND	12.9 J	1
Xylene (total)	1330-20-7	216	1,910	1000
TVOC	--	3,606.80	36,273.90	500*
TIVOC	--	900 J	10,480 J	500*

Legend:

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GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquifers
NA: Not Available
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BLOCK 614, LOTS 63 & 64
NEWARK, NEW JERSEY
PMK GROUP PROJECT # 092976

Sample No.	CASRN #	BW-1	BW-2	NJDEP GQC (µg/l)
Laboratory ID.#		JA27233-11	JA27233-12	
Date Collected		9/3/2009	9/3/2009	
Semi-Volatile Organic Compounds (SVOC), µg/l				
1,2,4-Trichlorobenzene	120-82-1	58.9	55.3	9
1,2-Dichlorobenzene	95-50-1	16.3	19.4	600
1,2-Diphenylhydrazine	122-66-7	ND	ND	20
1,3-Dichlorobenzene	541-73-1	3.9	0.84 J	600
1,4-Dichlorobenzene	106-46-7	13.7	1.1 J	75
2,4,6-Trichlorophenol	88-06-2	ND	ND	20
2,4-Dichlorophenol	120-83-2	ND	ND	20
2,4-Dimethylphenol	105-67-9	250	889	100
2,4-Dinitrophenol	51-28-5	ND	ND	40
2,4-Dinitrotoluene	121-14-2	ND	ND	10
2,6-Dinitrotoluene	606-20-2	ND	ND	10
2-Chloronaphthalene	91-58-7	7.4	157	600
2-Chlorophenol	95-57-8	ND	ND	40
2-Nitrophenol	88-75-5	ND	ND	100^
3,3'-Dichlorobenzidine	91-94-1	ND	ND	30
4,6-Dinitro-o-cresol	534-52-1	ND	ND	100^
4-Bromophenyl phenyl ether	101-55-3	ND	ND	100^
4-Chloro-3-methyl phenol	59-50-7	ND	ND	100^
4-Chloroaniline	106-47-8	ND	ND	30
4-Chlorophenyl phenyl ether	7005-72-3	ND	ND	100^
Acenaphthene	83-32-9	3.3	ND	400

Legend:

µg/l: micrograms per liter, ppb
GQC: NJDEP Groundwater Quality Criteria for Class II-A Aq
NA: Not Available
ND: Not Detected above Laboratory Reported Detection L
TSVOC: Total Semi-Volatile Organic Compounds
TISVOC: Tentatively Identified Semi-Volatile Organic Compoun
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Sample No.	CASRN #	BW-1	BW-2	NJDEP GQC (µg/l)
Laboratory ID.#		JA27233-11	JA27233-12	
Date Collected		9/3/2009	9/3/2009	
Semi-Volatile Organic Compounds (SVOC), µg/l				
4-Nitrophenol	100-02-7	ND	ND	100^
Acenaphthylene	208-96-8	ND	ND	100^
Anthracene	120-12-7	ND	ND	2000
Benzidine	92-87-5	ND	ND	20
Benzo(a)anthracene	56-55-3	1.8	ND	0.1
Benzo(a)pyrene	50-32-8	1.9	ND	0.1
Benzo(b)fluoranthene	205-99-2	5	ND	0.2
Benzo(g,h,i)perylene	191-24-2	1.9	ND	100^
Benzo(k)fluoranthene	207-08-9	1.6	ND	0.5
bis(2-Chloroethoxy)methane	111-91-1	ND	ND	100^
bis(2-Chloroethyl)ether	111-44-4	ND	ND	7
bis(2-Chloroisopropyl)ether	108-60-1	ND	ND	300
bis(2-Ethylhexyl)phthalate	117-81-7	ND	22.7	3
Butyl benzyl phthalate	85-68-7	ND	ND	100
Chrysene	218-01-9	2.4	ND	5
Dibenzo(a,h)anthracene	53-70-3	ND	ND	0.3
Diethyl phthalate	84-66-2	111	219	6000
Dimethyl phthalate	131-11-3	ND	ND	100^
Di-n-butyl phthalate	84-74-2	ND	ND	700
Di-n-octyl phthalate	117-84-0	103	7.1	100

Legend:

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Sample No.	CASRN #	BW-1	BW-2	NJDEP GQC (µg/l)
Laboratory ID.#		JA27233-11	JA27233-12	
Date Collected		9/3/2009	9/3/2009	
Semi-Volatile Organic Compounds (SVOC), µg/l				
Fluoranthene	206-44-0	3.3	ND	300
Fluorene	86-73-7	3	ND	300
Hexachlorobenzene	118-74-1	ND	ND	0.02
Hexachlorobutadiene	87-68-3	ND	ND	1
Hexachlorocyclopentadiene	77-47-4	ND	ND	40
Hexachloroethane	67-72-1	ND	ND	7
Indeno(1,2,3-cd)pyrene	193-39-5	1.5	ND	0.2
Isophorone	78-59-1	ND	ND	40
Naphthalene	91-20-3	11.2	58.5	300
Nitrobenzene	98-95-3	ND	ND	6
n-Nitrosodimethylamine	62-75-9	ND	ND	0.8
N-Nitroso-di-n-propylamine	621-64-7	ND	ND	10
N-Nitrosodiphenylamine	86-30-6	ND	ND	10
Pentachlorophenol	87-86-5	ND	ND	0.3
Phenanthrene	85-01-8	8.2	ND	100^
Phenol	108-95-2	2,850	4,190	2000
Pyrene	129-00-0	3.1	ND	200
TSVOC	--	3,462.40	5,619.94	500*
TISVOC	--	3,508 J	2,866 J	500*

Legend:

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This document is a draft and is based on incomplete an/or preliminary data. This document has not gone through PMK Group's standard quality control review process.

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Laboratory ID.#		JA27233-11	JA27233-12	
Date Collected		9/3/2009	9/3/2009	
PCBs & Pesticides, µg/l				
4,4'-DDD	72-54-8	ND	ND	0.1
4,4'-DDE	72-55-9	ND	ND	0.1
4,4'-DDT	50-29-3	ND	ND	0.1
Aldrin	309-00-2	ND	ND	0.04
alpha-BHC	319-84-6	ND	ND	0.02
Aroclor 1016	12674-11-2	ND	ND	0.5
Aroclor 1221	11104-28-2	ND	ND	0.5
Aroclor 1232	11141-16-5	ND	ND	0.5
Aroclor 1242	53469-21-9	ND	ND	0.5
Aroclor 1248	12672-29-6	ND	ND	0.5
Aroclor 1254	11097-69-1	0.7	ND	0.5
Aroclor 1260	11096-82-5	ND	ND	0.5
beta-BHC	319-85-7	ND	ND	0.04
Chlordane	12789-03-6	ND	ND	0.5
delta-BHC	319-86-8	ND	ND	100^
Dieldrin	60-57-1	ND	ND	0.03

Legend:

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Laboratory ID.#		JA27233-11	JA27233-12	
Date Collected		9/3/2009	9/3/2009	
PCBs & Pesticides, µg/l				
Endosulfan sulfate	1031-07-8	ND	ND	40
Endosulfan-I	959-98-8	ND	ND	40
Endosulfan-II	33213-65-9	0.087	ND	40
Endrin	72-20-8	ND	ND	2
Endrin aldehyde	7421-93-4	ND	ND	100^
gamma-BHC (Lindane)	58-89-9	ND	ND	0.03
Heptachlor	76-44-8	ND	ND	0.05
Heptachlor epoxide	1024-57-3	ND	ND	0.2
Methoxychlor	72-43-5	ND	ND	40
Toxaphene	8001-35-2	ND	ND	2

Legend:

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Laboratory ID.#		JA27233-11	JA27233-12	
Date Collected		9/3/2009	9/3/2009	
Metals, µg/l				
Antimony	7440-36-0	ND	ND	6
Arsenic	7440-38-2	ND	ND	3
Beryllium	7440-41-7	ND	ND	1
Cadmium	7440-43-9	ND	ND	4
Chromium	7440-47-3	10.9	ND	70
Copper	7440-50-8	55.9	65.5	1300
Lead	7439-92-1	112	22.1	5
Mercury	7439-97-6	ND	0.6	2
Nickel	7440-02-0	37.5	12.8	100
Selenium	7782-49-2	ND	ND	40
Silver	7440-22-4	ND	ND	40
Thallium	7440-28-0	ND	ND	2
Zinc	7440-66-6	185	114	2000
MISCELLANEOUS PARAMETERS, mg/L				**(mg/L)**
Phenols	108-95-2	20.4	345	--
Cyanide (free Cyanide)	57-12-5	ND	ND	0.1
Total Organic Carbon (TOC)	--	32.7	759	--
Chemical Oxygen Demand (COD)	--	220	4,880	--
Biochemical Oxygen Demand (BOD_5)	--	95.8	>759	--

Legend:

µg/l: micrograms per liter, ppb
GQC: NJDEP Groundwater Quality Criteria for Class II-A Aquife
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10 Concentration in excess of NJDEP GQC

APPENDIX 1
CHRONOLOGICAL SITE HISTORY
FROM PAR DATED MAY 2009

APPENDIX A

SUMMARY OF SITE HISTORY

City of Newark
1700-1716 McCarter Highway
Newark, NJ

Prior ownership and use information at this location is limited. The history is based on publicly available records, interview with City of Newark employees, and historical records obtained from Environmental Data Resources, Inc. (EDR). Records reviewed included the Proposed Subdivision – Newark Tax Map dated June 25, 1984, EDR Certified Sanborn® Map Report dated March 18, 2009 (maps dated 2003, 1994, 1989, 1973, 1950, 1931, 1909, and 1892), and the EDR Radius Map Report with GeoCheck® dated March 18, 2009. The City of Newark Tax Assessor's Office provided the current and previous property ownership information. Aerial photographs dated 2006, 1995, 1984, 1976, 1966, 1953, and 1933 in the EDR Aerial Photo Decade Package dated March 18, 2009, as well as historical topographic maps included in the EDR Historical Topographic Map Report dated March 18, 2009, were also reviewed as part of this Preliminary Assessment (PA). Copies of these documents are included in Appendix B. The address 1700-1712 & 1702-1716 McCarter Highway, was only identified on the VCP (Voluntary Clean-Up) database, which is the State program this Preliminary Assessment is being completed under. A request for information regarding environmental files through the Freedom of Information Act (FOIA) was submitted by Weston Solutions, Inc. (Weston®) to the New Jersey Department of Environmental Protection (NJDEP). NJDEP indicated that there were no files pertaining to the property known as 1700-1712 & 1702-1716 McCarter Highway. However, interviews with City of Newark Property Management employees indicate the property is located in the Riverside Industrial Park, also known as 29-47 Riverside Avenue, which was previously operated by Frey Industries. Another request for information regarding environmental files through the FOIA was submitted by Weston to NJDEP for 29-47 Riverside Avenue, Newark. However, no information has been received to date. If additional information is received from the FOIA request that changes the recommendations of this Preliminary Assessment, the pertinent information will be forwarded to NJDEP.

The 1700-1712 & 1702-1716 McCarter Highway Site is currently owned by the City of Newark and is located in Newark, Essex County, New Jersey (Refer to Figure 1 for property location). This property is identified as Block 614; Lots 63 and 64 in the City of Newark Tax Assessor's Office (Appendix B). The City of Newark obtained this property through foreclosure around 1993 from Industrial Development Assoc (Lot 64) and Industrial Development Corp. (Lot 63). Currently, the property is vacant with two buildings, one 3-story building known as Building No. 7 and one 5-story building, known as Building No. 12, and a former concrete building foundation adjacent to Building No. 7. The remaining portions of the site are covered with gravel and vegetation. The site is bordered to the north by Chemical Compounds, Inc. and a vacant lot owned by the City of Newark, the Passaic River to the east, Chemical Compounds, Inc. and a vacant lot to the south, and railroad tracks to the west, beyond which is McCarter Highway (Figure 2).

The Sanborn® Map dated 1892 shows the land as vacant with a water line indicating the property was once possibly covered by the Passaic River. In 1909, the Sanborn Map® indicates the property may be part of the Patton Paint Co., which is identified on the map as manufacturers of paints and varnish, until at least 1931. No buildings are present on the property according to the 1909 map. One 385-gallon, underground storage tank (UST) used for Naphtha, appears to have been located in the current parking area near the eastern corner of Building No. 12. In addition, several iron tanks; four (4) 9,500-gallon and two (2) 56,000-gallon, used for the storage of turpentine and substitutes, and linseed oils were indicated on the map in the approximate location of the current Building No. 12.

The 1931 Sanborn® Map depicts what appears to be the current Building No. 12, identified as a warehouse. The six iron tanks and naphtha USTs are no longer depicted. The property appears to be part of the Pittsburgh Plate Glass Co., Paint and Varnish Division until sometime before1973. As shown on the 1931 Sanborn Map and the 1933 aerial photograph, factory buildings to the north have been expanded and abut the northwest portion of Building No. 12. Two naphtha tanks, assumed to be above-ground, are present near the southern property line between Building Nos. 12 and 8. Building 8 appears to be located at the current location of Building 7. Building No. 8, identified as barrel staging, is present to the east of Building No. 12 and adjacent to the Passaic River. Several buried oil tanks and oil tanks, assumed to be above-ground storage tanks (ASTs), are present in the parking area north of Building No. 12.

On the Sanborn® Map dated 1950 the site remains part of the property known as Pittsburgh Plate Glass Co., Paint and Varnish Division. Building No. 8 is no longer present and what appears to be the current Building No. 7 has been erected in its place and is identified as a factory building. Building No. 12, identified as a warehouse, is still present and the two naphtha tanks near the southern property line are no longer depicted and two naphtha tanks are located on the adjacent property to the south. The ASTs and USTs are still present in the parking area in the 1950 Sanborn® Map. Building No. 12 is visible in the 1966 aerial photograph and a structure, possibly an AST, is present near the south side of where Building No. 7 is located today; however, due to the poor quality of the photo, the structures and Building No. 7 are not clearly identifiable in the photo. Tank-like structures are also visible in the parking area northeast of Building No. 12 and are possibly the ASTs shown on the Sanborn® Map.

The 1973 Sanborn® Map indicates the property is part of Universal International Industries (various manufacturing) and Buildings No. 12 and No. 7 are in the same locations as observed during Weston's site visit. The uses of the buildings are not readable on the 1973 Sanborn® Map. The USTs and ASTs in the parking lot area are still identified on the 1973 map and the building that abuts the western portion of Building No. 12 to the north is still present. In the 1953 and 1966 aerial photographs, Buildings 12 and 7 are visible and nine (9) ASTs are present in the parking area north of Buildings 12 and 7. The factory building abutting Building 12's northwest corner is still present. In the 1953 aerial photograph, what appears to be a possible outdoor storage area, is visible along the south side of Building No. 12.

The 1989 Sanborn® Map appears the same as the 1973 map; however, the factory building that abuts the northwestern corner of Building No. 12 is no longer depicted and Building No. 12 is

identified as a warehouse and Building No. 7 is a factory building. The presence of the factory building abutting the northwest portion of Building No. 12 could not be confirmed with the aerial photographs from 1976 and 1984 due to the poor quality of the photographs.

Buildings No. 12 and No. 7 are visible in the 1995 aerial photograph; however, due to the poor quality of the aerial photo, the removal of the building abutting the northwestern side of Building No. 12 could not be confirmed. The ASTs in the parking area appear to be gone, but the aerial photo quality is poor.

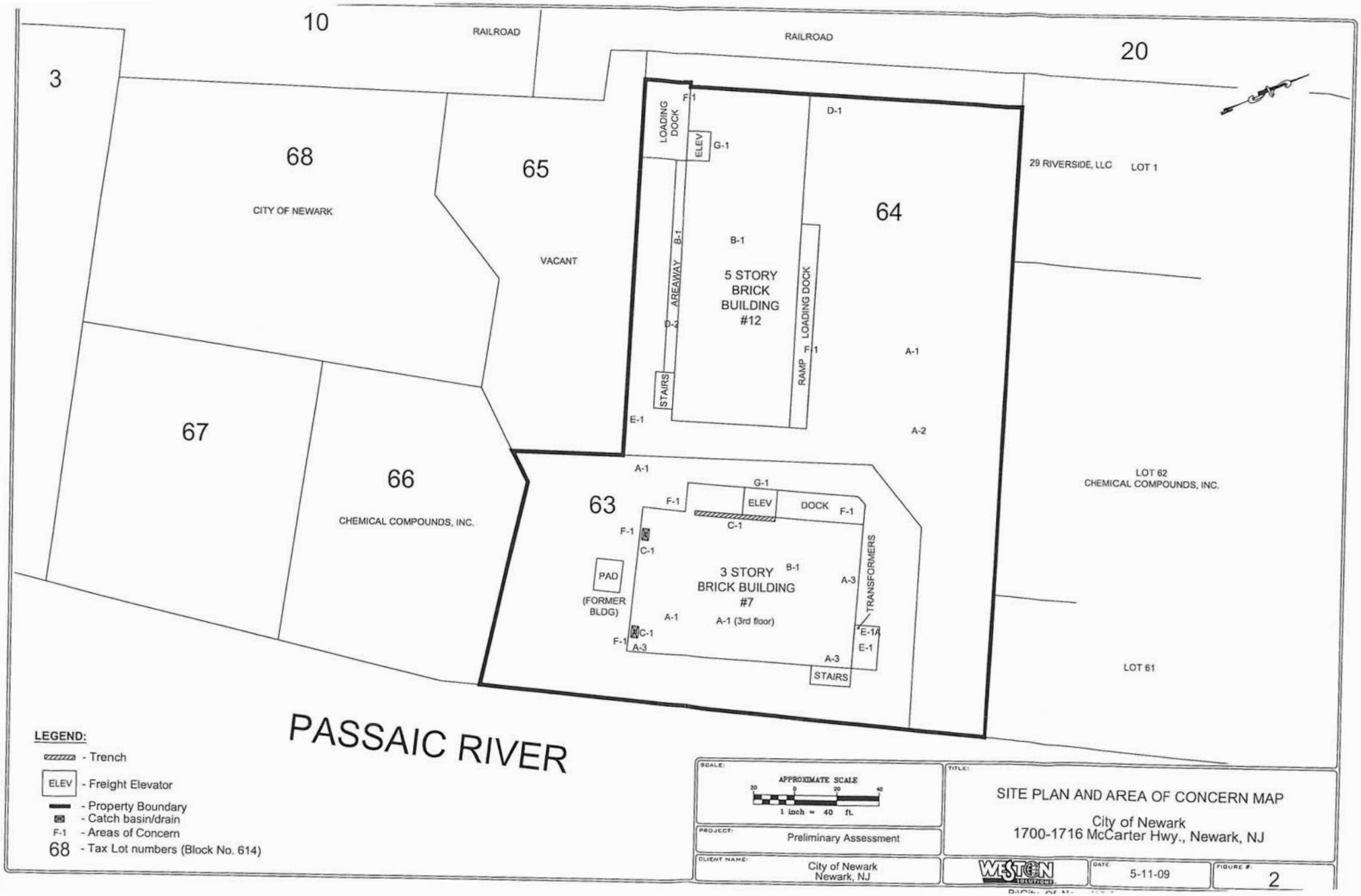
The property on the 2003 Sanborn® Map appears the same as the 1989 map and is still identified as part of the Universal International Industries. The ASTs and USTs in the parking lot are still identified on the map. The 2006 aerial photograph is in color and confirms that the factory building abutting the northwestern side of Building No. 12 has been removed and trees have grown in its place indicating it has been gone for some length of time. Based on Weston's March 23, 2009 site walk, the ASTs identified on the Sanborn® Maps, both in the parking lot and along the south side of the property, are no longer present. There was no evidence of USTs observed in the parking lot areas during Weston's site walk.

Interviews with City of Newark Property Management employees indicates the two buildings, Building No. 7 and Building No. 12, were part of the industrial park complex operated by Frey Industries and the address was known as 29-47 Riverside Avenue, prior to foreclosure by the City of Newark in the early 1990s. In addition, the buildings were also reported to be operated by Chemical Compounds, Inc. at one time.

During Weston's site walk conducted on March 23, 2009 and April 28, 2009, Buildings No. 12 and No. 7 were not in use. Building No. 12 was constructed with concrete floors on the first floor. Several empty drums and paint cans were observed throughout the first floor. One drum was labeled and addressed to Frey Industries, 29 Riverside Avenue. No floor drains or significant cracks were observed on the first floor areas inspected. At least two loading/unloading areas were noted in Building No. 12. Floors 2 and 3 were constructed with concrete floors and were empty. The basement and floors 4 and 5 in Building No. 12 were not inspected due to the collapse of the stairs.

The first floor of Building No. 7 contained several drums, wooden pallets and ponded water. Many runs of overhead piping were also observed on the first floor. Up to four suspected loading/unloading areas were observed in Building No. 7 and two contained catch basins covered by steel grates. A trench was also observed on the first floor. Several ASTs and associated piping were observed on the second and third floors. A concrete pad surrounded by concrete block walls was observed adjacent to the south side of Building No. 7. A gas line appears to have previously entered this building.

APPENDIX 2
AOC SUMMARY


10
RAILROAD
RAILROAD
20
3
68
CITY OF NEWARK
65
VACANT
64
29 RIVERSIDE, LLC
LOT 1
LOADING DOCK
F-1
ELEV
G-1
D-1
AREAWAY
B-1
D-2
B-1
5 STORY BRICK BUILDING #12
LOADING DOCK
RAMP
F-1
A-1
STAIRS
E-1
A-2
67
66
CHEMICAL COMPOUNDS, INC.
A-1
63
G-1
F-1
ELEV
DOCK
F-1
C-1
F-1
C-1
PAD
(FORMER BLDG)
3 STORY BRICK BUILDING #7
B-1
A-3
TRANSFORMERS
A-1
A-1 (3rd floor)
F-1
C-1
A-3
E-1A
E-1
A-3
STAIRS
LOT 62
CHEMICAL COMPOUNDS, INC.
LOT 61
PASSAIC RIVER
LEGEND:
- Trench
ELEV - Freight Elevator
- Property Boundary
- Catch basin/drain
F-1 - Areas of Concern
68 - Tax Lot numbers (Block No. 614)
SCALE:
APPROXIMATE SCALE
20 0 20 40
1 inch = 40 ft.
PROJECT:
Preliminary Assessment
CLIENT NAME:
City of Newark
Newark, NJ
TITLE:
SITE PLAN AND AREA OF CONCERN MAP
City of Newark
1700-1716 McCarter Hwy., Newark, NJ
WESTON SOLUTIONS
DATE:
5-11-09
FIGURE #:
2

APPENDIX C
SUMMARY OF IDENTIFIED POTENTIAL AREAS OF CONCERN

1700-1712 & 1702-1716 McCarter Highway
Newark, NJ

AOC A-1 – Aboveground Storage Tanks and Associated Piping

The presence of several suspected ASTs was identified on the Sanborn® Fire Insurance Maps and in aerial photographs. The nine (9) ASTs located in the parking lot area were identified on the Sanborn® Maps as oil tanks and the two (2) ASTs located along the southern portion of the property were identified as naphtha tanks. In addition, observations made during Weston's site visit indicated the presence of several ASTs located on the third floor of Building No. 7 and one AST on the first floor of Building No. 7, near the rear of the building. A Site Plan depicting the potential areas of concern (AOCs) is presented in Figure 2.

A site investigation is recommended to address AOC A-1. Up to four (4) soil borings will be completed in the area around the former location of the oil ASTs in the parking lot. Two additional soil borings will be completed in the former area of the two reported Naphtha ASTs located on the southern side of the property. Soil samples will be collected from the soil borings from a depth of approximately 1 to 1.5 feet below ground surface for laboratory analysis. Based on the potential use for oil storage, the soil samples will be analyzed for total petroleum hydrocarbons (TPH) using the OQA-QAM-025, rev. 6 test method.

The ASTs observed in Building No. 7 should be addressed as part of the building demolition or renovation in accordance with applicable regulations.

AOC A-2 –Underground Storage Tanks and Associated Piping

Based on a review of the Sanborn® Fire Insurance Maps, it appears that up to 11 USTs potentially existed on the property. Observations made during Weston's site visit did not indicate the presence of any USTs.

A site investigation is recommended to address AOC A-2. To confirm the presence or absence of USTs at the site, a geophysical investigation is recommended. If the geophysical investigation indicates the presence of USTs, up to four (4) soil borings will be completed in the area around the assumed UST locations. Soil samples will be collected from the soil borings from the depth with the highest photoionization detector (PID) readings, observed contamination, or a depth of 10 feet below ground surface for laboratory analysis. Based on the potential use for oil storage, the soil samples will be analyzed for TPH using the OQA-QAM-025, rev. 6 test method.

AOC A-3 - Piping, above ground and below ground pumping stations, sumps and pits

During Weston's site visit on March 23, 2009, several areas containing aboveground piping runs were observed in at least three locations of the first floor of Building No. 7. The locations of the

piping runs observed in Building No. 7 are shown on Figure 2. The former use of the piping is unknown at this time. Photographs of the piping runs are included in Appendix E.

A site investigation is recommended to address this potential AOC. A soil investigation in the area immediately outside the building where the piping runs are located is recommended. This will include the collection of one soil sample from each location from a depth of 0.5 to 1.0 foot below the ground surface for laboratory analysis. Due to the unknown chemical use in the building, the soil samples will be analyzed for priority pollutants plus 40 (PP+40).

AOC B-1 – Storage pads including drum and/or waste storage

Observations made during Weston's site visit conducted on March 23, 2009, identified the presence of the remains of a concrete pad measuring approximately 120 feet long by 3 feet wide located along the southern side of Building No. 12. One rusted cylinder was observed in this area by Weston personnel during the site walk. The location of the concrete pad is shown on Figure 2. Photographs of the concrete pad are included in Appendix E. The former use of this area, identified on the Proposed Subdivision – City of Newark map as an "areaway", is unknown at this time.

A site investigation is recommended to address this potential AOC. A soil boring investigation in the area of the concrete pad is recommended. This will include the collection of up to five soil samples along the pad perimeter. Each soil sample will be collected from a depth of 0.5 to1.0 foot below the ground surface for laboratory analysis. Due to the unknown chemical use in the building, the soil samples will be analyzed for PP+40.

Several empty drums were observed during the site visit on the first floor of Building 12. Several 55-gallon drums were also observed on the first floor of Building 7. The contents could not be verified. The drums will be investigated as part of the site investigation and attempt to identify contents.

AOC C-1 – Floor drains, trenches and piping and sumps

Two steel grates covering suspected catch basins were observed immediately inside the loading area doors along the southern side of Building No. 7. A trench was also observed on the first floor in Building No. 7, approximately 35 feet in length and 4 feet wide. The use of these catch basins and trench is unknown. An attempt will be made to remove the steel grates to observe any piping connected to the catch basins and to determine the approximate depth of the bottom of the basins and their construction. The construction of the basins will be photo documented, if possible.

A site investigation is recommended to address this potential AOC. If sediment is present inside the catch basin, samples will be collected from inside each catch basin for laboratory analysis. Based on the unknown use of the manholes, the samples will be analyzed for PP+40. Photographs of the steel grates and trench are included in Appendix E.

AOC D-1 – Waste piles

A pile, consisting of soil, concrete blocks, wooden pallets and miscellaneous debris was observed adjacent to the northwestern corner of Building No. 12 during Weston's March 23, 2009 site walk. According to the Sanborn® Maps reviewed, this area of the site was the location of a former factory building. The use of this former building is unknown at this time.

A site investigation is recommended to address this potential AOC. Up to four soil samples will be collected from the waste pile for laboratory analysis. Based on the unknown origin of the waste pile, the soil samples will be analyzed for PP+40. Photographs of the waste pile are included in Appendix E.

AOC D-2 – Open pipe discharges

During Weston's site walk on March 23, 2009, an open pipe was observed from the southern side of Building No. 12 (Figure 2). The former use and origin of this pipe is unknown at this time.

A site investigation is recommended to address this potential AOC and will be included as part of the AOC B-1 investigation, discussed above. This area will be included in the sampling proposed for AOC B-1. Photographs of the open pipe are included in Appendix E.

AOC E-1 – Electrical transformers & capacitors

During Weston's site visit, three (3), pad-mounted transformers were observed within a fenced area near the northeastern corner of Building No. 7 (Figure 2). The transformers were also identified on a Proposed Subdivision Map dated June 25, 1984 (Appendix B). During Weston's site walk, staining was observed on the grassy area around one of the transformers. In addition, three pole-mounted transformers were observed near the southern property building near the southeastern corner of Building No. 12 (Figure 2). No staining was observed on the soil surrounding the utility pole.

A site investigation is recommended to address this potential AOC. To address the transformers located on site, two soil surface soil samples will be collected from the area around the pad-mounted transformers and one soil sample will be collected from the soil at the base of the pole-mounted transformers. The surface soil samples will be collected from an estimated depth of 0 to 0.5 foot below ground surface. Soil samples will be analyzed for polychlorinated biphenyls (PCBs). Photographs of the transformers are included in Appendix E.

AOC E-1A– Discolored or spill areas

During Weston's site visit, staining of the grassy area was observed around one of the three pad-mounted transformers, located near the northeastern corner of Building No. 7 (Figure 2). A site investigation is recommended to address this potential AOC. The investigation of this stained area will be investigated as part of AOC E-1, discussed above. Photographs of the stained area around the transformer are included in Appendix E.

AOC F-1 – Loading or Transfer Areas

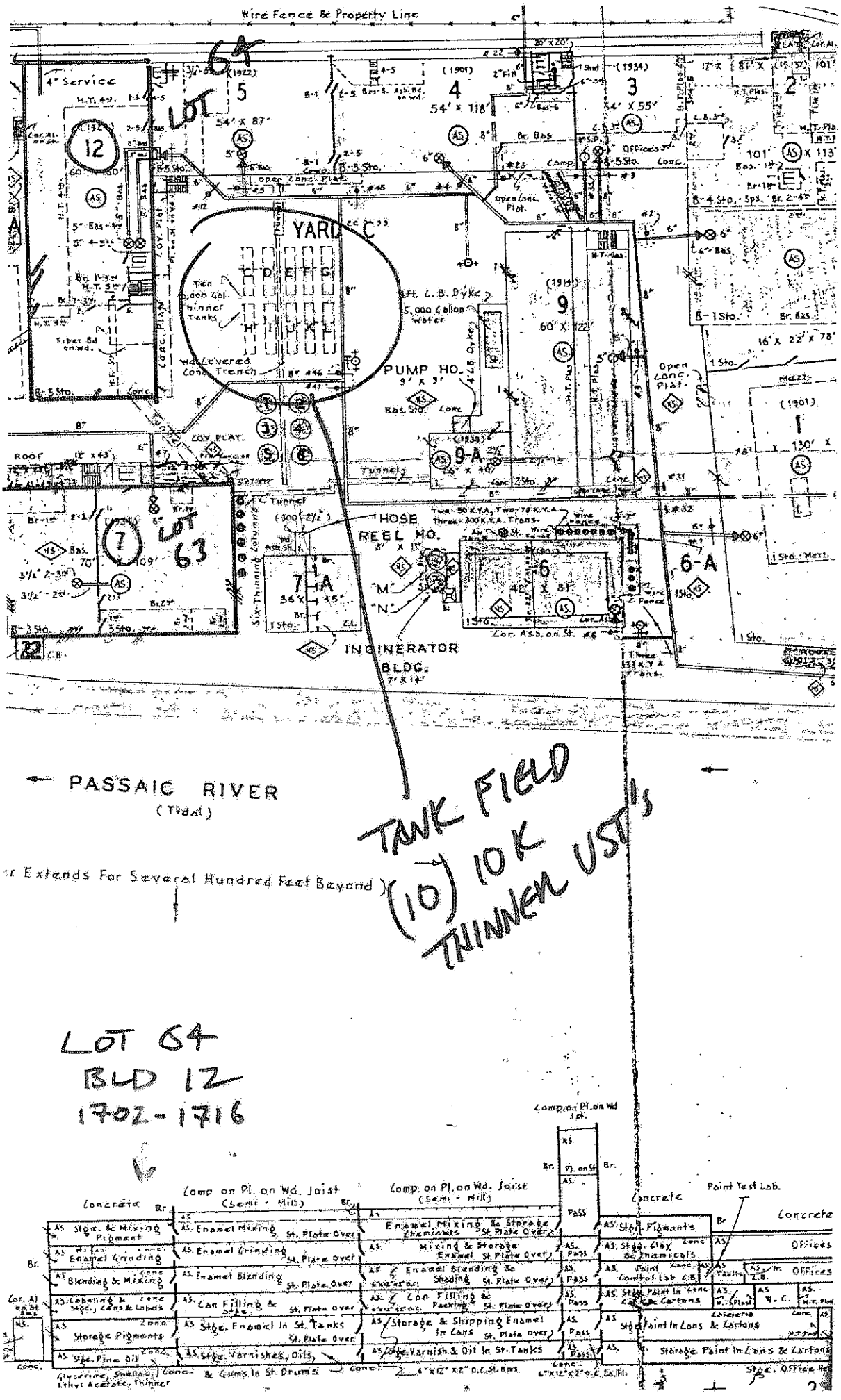
Several suspected loading/unloading dock areas were observed in Building No. 12 and Building No. 7. In Building No. 12, no floor drains were observed on the first floor of the building near the loading/unloading dock areas.

A site investigation is recommended to address this potential AOC. Since the materials previously warehoused in Building No. 12 and used in Building No. 7 are unknown at this time, up to three soil borings will be installed (one near each loading dock area) to address each area. Some of the loading/unloading dock areas are located in other areas identified as AOCs and will be addressed in combination with those AOCs. Soil samples will be collected from the soil borings from a depth of approximately 1 to 1.5 feet below ground surface for laboratory analysis. Based on the unknown use of the manholes, the soil samples will be analyzed for PP+40. Photographs of the suspected loading/unloading areas are included in Appendix E.

AOC G-1 – Freight Elevators

During Weston's site visit, a freight elevator was observed in Building 12 and Building 7. The elevators potentially have hydraulic tanks. Closure of these elevators is recommended. Upon closure, if soil is encountered at the bottom of the elevator shafts, a soil sample will be collected and analyzed for TPH. A photograph of the freight elevator in Building 7 is included in Appendix E.

APPENDIX 3
HISTORIC FACILITY MAP


Wire Fence & Property Line
LOT 64
LOT 63
YARD "C"
PUMP HO.
HOSE REEL NO.
INCINERATOR BLDG.
PASSAIC RIVER
(Tidal)
TANK FIELD
(10) 10K THINNER USTs
LOT 64
BLD 12
1702-1716
Comp. on Pl. on Wd. Joist (Semi - Mill)
Concrete
Paint Test Lab.
Offices

APPENDIX 4
NEW JERSEY GEOLOGICAL SURVEY MAP,
HISTORIC FILL

DEPARTMENT OF ENVIRONMENTAL PROTECTION
LAND USE MANAGEMENT
NEW JERSEY GEOLOGICAL SURVEY

74°15' 40°52'30" PATERSON 74°07'30" 40°52'30"

CALDWELL WEEHAWKEN

40°45' 74°15' ELIZABETH 40°45' 74°07'30"

EXPLANATION

The “Brownfield and Contaminated Site Remediation Act” (N.J.S.A. 58:10B-1 et seq.) requires the Department of Environmental Protection to map regions of the state where large areas of historic fill exist and make this information available to the public. This map shows areas of historic fill covering more than approximately 5 acres. For the purposes of this map, historic fill is non-indigenous material placed on a site in order to raise the topographic elevation of the site. No representation is made as to the composition of the fill or presence of contamination in the fill. Some areas mapped as fill may contain chemical-production waste or ore-processing waste that exclude them from the legislative definition of historic fill.

Fill was mapped from stereo aerial photography taken in March 1979, supplemented in places by planimetric aerial photography taken in the spring of 1991 and 1992. Additional areas of fill were mapped by comparing areas of swamp, marsh, and floodplain shown on archival topographic and geologic maps on file at the N. J. Geological Survey, dated between 1840 and 1910, to their modern extent. In a few places, fill was mapped from field observations and from drillers’ logs of wells and borings.

Most urban and suburban areas are underlain by a discontinuous layer of excavated indigenous soil mixed with varying amounts of non-indigenous material. This material generally does not meet the definition of historic fill and is not depicted on this map. Also, there may be historic fills that are not detectable on aerial photography or by archival map interpretation and so are not shown on this map, particularly along streams in urban and suburban areas.

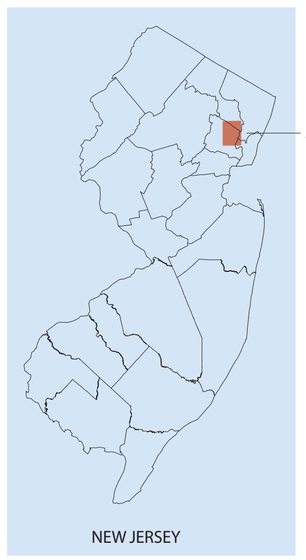
Use of the maps related to the Technical Rules, N.J.A.C. 7:26E

This map is provided for informational purposes only. The use of this map as the only source of information regarding the presence of historic fill at a site does not fulfill the diligent inquiry requirements of the Preliminary Assessment set forth at, N.J.A.C. 7:26E-3.1(c). This map may be used as one source of information to fulfill the requirements of the Site Investigation at, N.J.A.C. 7:26E-3.12. **This map is not intended to fulfill the Remedial Investigation requirements associated with historic fill at, N.J.A.C. 7:26E-4.6(b).**

Historic Fill

Non-Fill Area

NEW JERSEY GEOLOGICAL SURVEY 1835



12° MAGNETIC NORTH TRUE NORTH
APPROXIMATE MEAN DECLINATION, 1998

SCALE 1:24 000

1 1/2 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

The information shown here is subject to periodic update and revision. Base map from U.S. Geological Survey, 1955. Photorevised 1981. Digital data is available upon request from the New Jersey Geological Survey.

Fill mapping by S.D.Stanford
GIS cartography by M.Girard

HISTORIC FILL OF THE ORANGE QUADRANGLE

2004

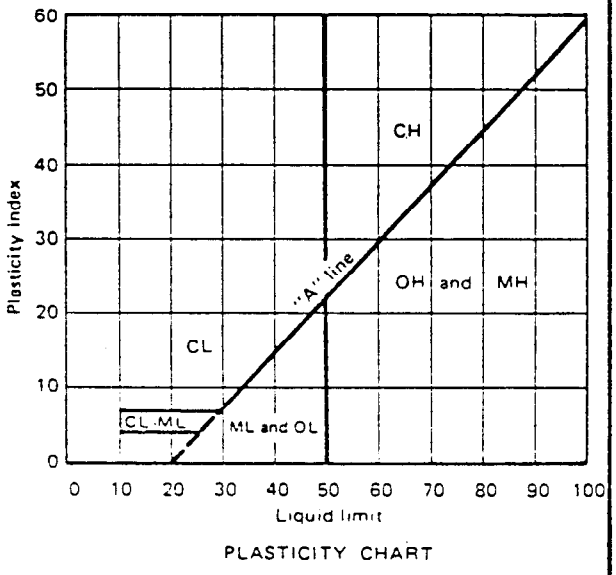
APPENDIX 5
UNIFIED SOIL CLASSIFICATION SYSTEM

Major divisions			Group symbols	Typical names	Laboratory classification criteria
Coarse-grained soils (More than half of material is larger than No. 200 sieve size)	Gravels (More than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines	Not meeting all gradation requirements for GW
		Gravel with fines (Appreciable amount of fines)	GM* d / u	Silty gravels, gravel-sand-silt mixtures	Atterburg limits below "A" line or P.I. less than 4
			GC	Clayey gravels, gravel-sand-clay mixtures	Atterburg limits above "A" line with P.I. greater than 7
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3
			SP	Poorly graded sands, gravelly sands, little or no fines	Not meeting all gradation requirements for SW
		Sands with fines (Appreciable amount of fines)	SM* d / u	Silty sands, sand-silt mixtures	Atterburg limits below "A" line or P.I. less than 4
			SC	Clayey sands, sand-clay mixtures	Atterburg limits above "A" line with P.I. greater than 7
Fine-grained soils (More than half of material is smaller than No. 200 sieve)	Silts and clays (Liquid limit less than 50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity	
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
			OL	Organic silts and organic silty clays of low plasticity	
	Silts and Clays (Liquid limit greater than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
			CH	Inorganic clays of high plasticity, fat clays	
			OH	Organic clays of medium to high plasticity, organic silts	
	Highly organic soils		Pt	Peat and other highly organic soils	

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:
- Less than 5 per cent ..... GW, GP, SW, SP
- More than 12 per cent ..... GM, GC, SM, SC
- 5 to 12 per cent ..... *Borderline* cases requiring dual symbols**

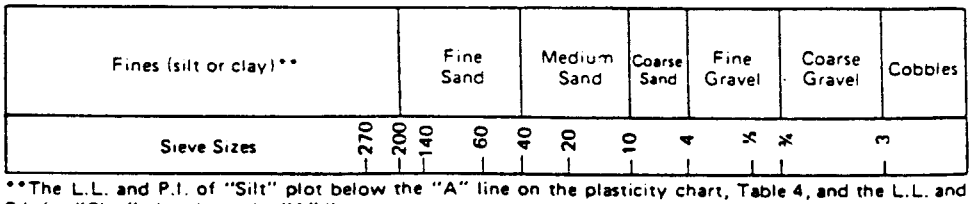
Above "A" line with P.I. between 4 and 7 *borderline* cases requiring use of dual symbols

Limits plotting in hatched zone with P.I. between 4 and 7 are *borderline* cases requiring use of dual symbols.



PLASTICITY CHART

*Division of GM and SM groups into subdivisions of d and u are for roads and airfields only. Subdivision is based on Atterburg limits; suffix d used when L.L. is 28 or less and the P.I. is 6 or less; the suffix u used when L.L. is greater than 28.
**Borderline classifications, used for soils possessing characteristics of two groups, are designated by combinations of group symbols. For example: GW-GC, well-graded gravel-sand mixture with clay binder.



**The L.L. and P.I. of "Silt" plot below the "A" line on the plasticity chart, Table 4, and the L.L. and P.I. for "Clay" plot above the "A" line.

Unified Soil Classification System
Figure F332A

APPENDIX 6
SOIL BORING LOGS

LOG OF BORING HF-3R

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: HF-3R
Project No: 092976
Date Completed: 09/28/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background (0 2000 4000 6000 8000 9999)	Comments
Depth	Symbol	Description	Number	Recovery (inches)		
		Ground Surface				
0		2" top soil brown SAND (f), s., organic material (damp) 28" white-tan to tan-gray SAND (c-f) (ash, slag), grvl (c-m) (shell, brick) (moist) 23" gray-tan to black SAND (c-m) (ash), grvl (c-m) (wet)	TRANS-1	30"	229.0 769.0 519.0 235.0 652.0 1119.0 562.0 1892.0	SampleTRANS-1 collected from 0.5-1.0 ft bsg. Submitted for PCB analysis.
4		7" white-tan to tan-gray SAND (c-f) (ash, slag), grv (c-m)l (shell, brick) (moist) 23" gray-tan to black SAND (c-m) (ash), grvl (c-m) (wet)	HF-3R	30"	1752.0 1658.0 1658.0 1597.0 1583.0 1572.0 1572.0 1123.0	Sample HF-3R collected from 7.0-7.5 ft bsg on 9/28/09. Submitted for VO+10 analysis.
8		8" gray SAND (m-f) (wet) 7" fill (china, brick, paper, wood) (wet)		15"	1024.0 1011.0 963.0 856.0 795.0 792.0 792.0 792.0	
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: PMK
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING HF-6

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: HF-6
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
0		6" top soil brown SAND (m-f), t. grvl (m) (moist) 16" brown-red to brown-black SAND (m-f), fill (moist) 6" SAND (ash) (c-m), t. grvl (m) (moist)		28"	7.0 10.0 11.0 10.0 58.0 152.0 239.0 290.0	
4		28" SAND (ash) (c-m), grvl (cinder, brick) (c-f) (moist)		28"	20.2 28.7 42.4 14.9 12.8 6.9 12.0 7.0	
8		28" brown-gray SAND (c-f), t. grvl (m) (moist) 4" gray-brown to gray-red silty SAND (f) (moist)	HF-6	32"	89.0 152.0 2000.0 2460.0 2640.0 2460.0 1110.0 228.0	Sample HF-6 collected from 10.5-11.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING HF-7

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: HF-7
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 20
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
0		4" GRVL (c), s., sand (m-f) (damp) 16" red-brown SAND (c-f), grvl (brick) (m) (damp) 4" brown SAND (m-f), t. grvl (m) (damp)		24"	0.3 1.7 1.9 0.8	
2					1.0 0.0 0.3 1.0	
4		8" brown SAND (m-f), t. grvl (m) (damp) 4" SAND (ash, cinders) (c-f) (damp)		12"	3.0 0.3 5.0 10.0 11.0 14.9	
8		12" SAND (ash, cinders) (c-f) (moist) 24" black SAND (fill) (c-f), grvl (c) (moist)		24"	12.0 10.9 9.0 107.0 107.0 107.0 107.0 105.0	
12		8" gray to grayish brown SAND (c-f), silt (f) (moist)		8"	105.0 105.0 107.0 107.0 107.0 100.0 100.0 101.0	
16		12" GRVL (m), s. silt (f) (moist) 12" gray silty SAND (f) (moist)	HF-7	24"	98.4 98.4 95.0 95.0 89.5 89.5 45.0 17.9 14.8 14.8	Sample HF-7 collected from 16.0-16.5 ft bsg. Submitted for PP+ 40 and QAM analysis.
20		End of Borehole at 20 ft				
21						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING HF-NW

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: HF-NW
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 20
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
0–4		8" concrete/qp (moist) 16" black-brown SAND (moist)	HF-NWA	24"	400.0 400.0 400.0 400.0 576.0 576.0 576.0 576.0	Sample HF-NWA collected from 2.0-2.5 ft bsg. Submitted for PP+ 40 and TPHC analysis.
4–8		10" black-brown SAND (c-f) (moist) 19" black SAND (ash) (c-f) t. grvl, (moist)	HF-NWB	29"	2372.0 2372.0 1617.0 1617.0 2167.0 2167.0 2078.0 2078.0	Sample HF-NWB collected from 6.5-7.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
8–12		19" brown-red SAND (c-f) (very wet)	HF-NWC	19"	2012.0 2012.0 2012.0 2012.0 2012.0 2012.0 2012.0 2012.0	Sample HF-NWC collected from 11.5-12.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
12–16		NO RECOVERY		0"		
16–20		12" black SAND (c-f), fill (china, wood) (damp) 8" black-gray silty SAND (c-f) (damp) 18" weathered SAND stone (damp)	HF-NWD	48"	1017.0 1017.0 167.0 167.0 179.0 112.0 73.0 50.0 39.0	Sample HF-NWD collected from 18.0-18.5 ft bsg. Submitted for PP+ 40 and TPHC analysis.
20		End of Borehole at 20 ft				
21						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING LD-1/HF-4

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: LD-1/HF-4
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
		6" concrete (damp) 6" pinkinsh tan SAND (m-f) and GRVL (c) (damp) 12" black-brown SAND (m-f), s. grvl (c-m) (damp)		24"	8.0 10.0 12.0 12.8 15.0 16.0 17.0 17.0	Sample LD-1 collected from 1.5-2.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
4		5" black-brown SAND (m-f), s. grvl (c-m) (wet) 4" white-tan SAND (m-f), t. grvl (m) (wet) 10" red-brown SAND (m-f), t. grvl (m) (wet) 5" black-brown SAND (c-f), t. grvl (m) (very wet)		24"	10.0 9.3 6.0 5.8 25.0 58.0 354.0 950.0	
8		17" GRVL (c-m), s. sand (f) (very wet) 3" brown SAND (m-f), s. grvl (m) (very wet) 13" black fill (china, wood) (very wet) 3" red-brown SAND (m-f) (very wet)	HF-4	36"	1100.0 1498.0 1401.0 1325.0 1122.0 298.0 188.0 179.0	Sample HF-4 collected from 11.0-11.5ft bsg. Submitted for PP+ 40 and TPHC analysis.
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING LD-1A

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: LD-1A
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 8
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background (0 2000 4000 6000 8000 9999)	
Depth	Symbol	Description	Number	Recovery (inches)		Comments
		Ground Surface				
0		12" concrete (damp) 2" fill, gray-brown SAND (m-f), s. grvl (m) (damp) 22" GRVL (brick) (m-f) (damp)			52.0	
1					52.0 47.0	
2				36"	47.0 8.7	
3					9.0 9.8	
4		8" GRVL (brick) (m-f) (damp) 2" pinkish tan SAND (m-f) (damp) 4" brown SAND (m-f) grvl (c), fill (wood) (damp)	LD-1A		9.0 8.7	Sample LD-1A collected from 4.5-5.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
5				14"	112.0 24.0	
6		Rejection at the end of 6 ft. due to second concrete pad. End of Borehole at 6 ft			1067.0	
7						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING LD-2/HF-5

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: LD-2/HF-5
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
		29" fill, red-brown and black-gray SAND (c-f), t. grvl (c-f) (moist) 7" black SAND (ash, slag) (c) (moist)			106.0 299.0	
1					169.0 519.0	
2			LD-2	36"	519.0 19.0	Sample LD-2 collected from 1.5-2.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
3					1119.0 800.0	
4		9" black SAND (ash, slag) (c) (moist) 17" tanish gray SAND (m-f) (ash) (very wet)			450.0 562.0	
5					654.0 740.0	
6			HF-5	26"	1125.0 1689.0	Sample HF-5 collected from 6.5-7.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
7					1754.0 1892.0	
8		5" SAND (ash slag) (wet) 8" brown-black SAND (m-f) (very wet) 13" brown-black SAND (m-f), s. grvl (m) (wet)			1687.0 1545.0	
9					1572.0 1120.0	
10				26"	924.0 853.0	
11					792.0 792.0	
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING LD-3

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: LD-3
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
0		3" top soil SAND (f), qp (damp) 6" concrete (damp) 9"gray-white GRVL (m) and SAND (c-f) (damp) 16" black to red-brown SAND (c-f), t.grvl (m) (damp) 2" GRVL (c) (damp) 2" SAND (ash) (c) (damp)	LD-3	38"	4.3 5.0 7.0 11.0 12.8 7.0 8.4 2.5	Sample LD-3 collected from 1.5-2.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
4		28" SAND (ash) (c-f), grvl (brick) (c) (moist) 10" black SAND (c-f), grvl (m) (wet)		48"	2.5 2.8 6.0 7.0 14.8 12.0 9.0 8.9	
8		10" black SAND (c-f), grvl (m) (very wet)		10"	120.0 500.0 632.0 1149.0 1236.0 1363.0 1122.0 1456.0	
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING LD-4

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: LD-4
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	Comments
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	
0		Ground Surface				
		6" concrete (damp) 25" fill, gray-brown SAND (c-f), grvl (brick) (m) (damp)	LD-4	31"	22.4 50.0 100.0 197.0 200.0 419.0 543.0 379.0	Sample LD-4 collected from2.5-3.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
4		9" fill, gray-brown SAND (c-f), grvl (brick) (m) (damp) 3" red-brown SAND			379.0 329.0	
5					200.0 200.0	
6				12"	122.0 85.0	
7					50.0 47.0	
8		Rejection at the end of 8 ft. Unable to advance boring. End of Borehole at 8 ft				
9						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING LD-5

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: LD-5
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
		4" concrete (damp) 12" red-brown to brown-tan SAND (m-f), t. grvl (m) fill (brick, concrete) (damp) 15" gray-brown SAND (m-f), s. silt (f) (damp)	LD-5	31"	4.7 4.7 8.9 8.9 8.9 10.8 10.8 10.8	
4		20" gray-brown SAND (m-f), t. grvl (m) (damp)		20"	12.9 12.9 14.9 14.9 10.4 10.4 18.0 18.0	
8		12" brown-tan SAND (c-f), t. grvl (c-m) (very wet) 17" black SAND (c) strong odor (very wet) 7" tan-red silty SAND (m-f) (very wet)		36"	0.9 0.9 1.9 7.9 8.0 8.0 7.9 7.9	Sample LD-5 collected from 10.0-10.5 ft bsg. Submitted for PP+ 40 and QAM analysis.
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING STG-1

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: STG-1
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 6
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
		14" red-brown to pink-tan SAND (c-f), t. grvl (m) (damp)			217.0	
		6" red-brown to tan SAND (m-f), t. grvl (m) (damp)			100.0	
1					55.0	
			STG-1			Sample STG-1 collected from 1.5-2.0 ft bsg. Submitted for PP+ 40 and TPHC analysis.
2				20"	32.0	
					22.0	
3					20.0	
					20.0	
					19.0	
4		4" red-brown silty SAND (m-f), t. grvl (c-m) (damp)				
		20" SAND (ash, fill layer) (m-f) (damp)			20.0	
					24.0	
5					23.0	
					8.9	
6		End of Borehole at 6 ft		24"		
7						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING STG-2

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: STG-2
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
		4" concrete (damp) 14" red-brown to black SAND (m-f) (damp) 13" gray-brown SAND (m-f) (damp)		31"	4.3 4.3 4.3 4.3 5.0 6.0 8.0 9.0	
4		18" gray-brown SAND (m-f) (damp)		18"	9.0 10.0 12.0 16.8 17.0 18.0 18.8 19.3	
8		12" brow- tan SAND (c-f), (very wet) 16" black SAND (c) (strong odor ant killer) (very wet) 3" tan-red SAND (m-f), s. silt (f) (very wet)	STG-2	31"	19.3 0.9 1.0 1.3 2.0 5.0 8.0 9.8	Sample STG-2 collected from 10.0-10.5 ft bsg. Submitted for PP+ 40 and QAM analysis.
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING STG-2

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: STG-2
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 20
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
0		2" GRVL (c-m) (damp) 22" fill (brick, concrete) (damp)	STG-3	24"	0.2 0.2 0.4 0.4 0.4 0.4 0.4 1.0	Sample STG-3 collected from 2.5-3.0 ft bsg. Submitted for PP+ 40 and QAM analysis.
4		5" fill (concrete) (damp) 13" concrete, fill (ash, slag) (damp)		18"	9.0 9.0 9.0 9.0 10.0 12.0 11.6 11.6	
8		24" black SAND (c-f), fill (brick, ash, slag), brown-tan sand (f) (damp)		24"	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	
12		24" clay SAND (f) (damp) 24" silty CLAY (f) (damp)		48"		
16		48" gray SAND (m-f) (damp)		48"		
20		End of Borehole at 20 ft				
21						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING TRANS-1/HF-3

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: TRANS-1/HF-3
Project No: 092976
Date Completed: 09/22/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background (0 2000 4000 6000 8000 9999)	Comments
Depth	Symbol	Description	Number	Recovery (inches)		
0		Ground Surface				
0		2" top soil brown SAND (f), s. organic material (damp) 28" white-tan to tan-gray SAND (ash, slag) (c-f), grvl (c-m) (shell, brick) (damp)	TRANS-1	30"	229.0 769.0 519.0 235.0 652.0 1119.0	SampleTRANS-1 collected from 0.5-1.0 ft bsg. Submitted for PCB analysis.
4		7" white-tan to tan gray SAND (ash, slag) (c-f), grvl (shell, brick) (wet) 23" gray-tan to black SAND (ash) (c-m), grvl (c-m) (wet)	HF-3/HF-3R	30"	562.0 1892.0 1752.0 1658.0 1658.0 1597.0	Sample HF-3 collected from 7.0-7.5 ft bsg. Submitted for PP+40 and QAM analysis. Sample HF-3R collected from 7.0-7.5 ft bsg on 9/28/09. Submitted for VO+10 analysis.
8		8" gray SAND (m-f) (wet) 7" fill (china, brick, paper, wood) (wet)		15"	1583.0 1572.0 1572.0 1123.0 1024.0 1011.0 963.0 856.0 795.0 792.0	
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING TRENCH-1

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: TRENCH-1
Project No: 092976
Date Completed: 09/23/09
Ground Surface Elev: 20
Total Depth (ft): 6
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	Comments
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	
0		Ground Surface				
		19" top soil, brown-tan SAND (c-f), s. grvl (m) (damp) 12" red-brown SAND (m-f), t. grvl (m) (damp)			4.8	
1					6.0 6.5	
2				31"	10.9 11.0	
3					10.3 10.3	
4		8" red-brown SAND (m-f), t. grvl (m) (damp) 10" black SAND (m-f), t, grvl (m) (damp)			10.3 12.0	
5			TRENCH-1	18"	89.0 100.0	SampleTRENCH-1 collected from 5.5-6.0 ft bsg. Submitted for PP+ 40 and QAM analysis.
6		End of Borehole at 6 ft			117.0	
7						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING TT-1

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: TT-1
Project No: 092976
Date Completed: 09/22/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
		12" concrete (damp) 14" brown-tan SAND (m-f), t. grvl (c-m) (damp)	TT-1/TT-1R	26"	33.1 48.6 38.5 37.5 33.0 48.0 37.0 38.5	Sample TT-1 collected from 1.5-2.0 ft bsg. Submitted for PP+40 and QAM analysis. Sample TT-1R collected from 1.5-2.0 ft bsg on 9/28/09. Submitted for VO+40 analysis.
4		6" gray-brown SAND (c-f), s. grvl (c-m) (wet)		6"	59.0 80.0 156.0 398.0 562.0 785.0 802.0 957.0	
8		7" gray-brown SAND (f) (damp) 24" gray-brown silty CLAY (f) (damp) 9" gray-brown SAND (m-f), silt (f) (damp)		40"	209.0 109.0 81.9 12.1 13.0 14.0 14.0 18.4	
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING TT-1R

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: TT-1R
Project No: 092976
Date Completed: 09/28/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
		12" concrete (damp) 14" brown-tan SAND (m-f), t. grvl (c-m) (damp)	TT-1R	26"	33.1 48.6 38.5 37.5 33.0 48.0 37.0 38.5	Sample TT-1R collected from 1.5-2.0 ft bsg on 9/28/09. Submitted for VO+40 analysis.
4		6" gray-brown SAND (c-f), s. grvl (c-m) (wet)		6"	59.0 80.0 156.0 398.0 562.0 785.0 802.0 957.0	
8		7" gray-brown SAND (f) (damp) 24" gray-brown silty CLAY (f) (damp) 9" gray-brown SAND (m-f), silt (f) (damp)		40"	209.0 109.0 81.9 12.1 13.0 14.0 14.0 18.4	
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: PMK
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING TW-1/UST-DG/HF-1/HF-2

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

Boring No: TW-A/UST-DG/HF-1/HF-2
Project No: 092976
Date Completed: 09/22/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
		8" GRVL (qp) (m), s. silt (f) (damp) 6" yellow SAND (m-f), red-brown sand (m-f), grvl (c-m) (damp) 6" blackish tan SAND (m-f), s. grvl (m) (damp) 5" reddish pink SAND (brick) (f), clay (f) (damp) 6" GRVL (c), pinkish gray grvl, s., concrete (damp) 5" black-brown SAND (m-f), grvl (m) (damp)	UST-DG/HF-1 UST-DG/HF-1R	36"	31.0 360.0 1952.0 269.0 277.0 1447.0 1876.0 2254.0	
4		9" black-brown SAND (m-c), t. red-orange sand (m-c) (moist) 6" gray SAND (c-f) (ash) (moist) 21" gray SAND (c-f) (ash,cinders) (moist)		38"	2537.0 2537.0 2631.0 2655.0 2785.0 2856.0 2985.0 2631.0	Sample UST-DG/HF-1 collected from 6.5-7.0 ft. bsg. Submitted for PP+40 and TPH analysis. Sample UST-DG/HF-1R collected from 6.5-7.0 ft. bsg. on 9/28/09. Submitted for VO+10 analysis.
8		8" SAND (c-f), grvl (c-m) (wet) 5" GRVL (c-m), t. sand (m-f) (wet) 11" fill (china, brick, leather, paper, wood) (wet)		24"	2754.0 2556.0 2213.0 1002.0 965.0 854.0 346.0 694.0	
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

LOG OF BORING TW-1/UST-DG/HF-1/HF-2

65 Jackson Drive
P.O. Box 5000
Cranford, New Jersey 07016-5000

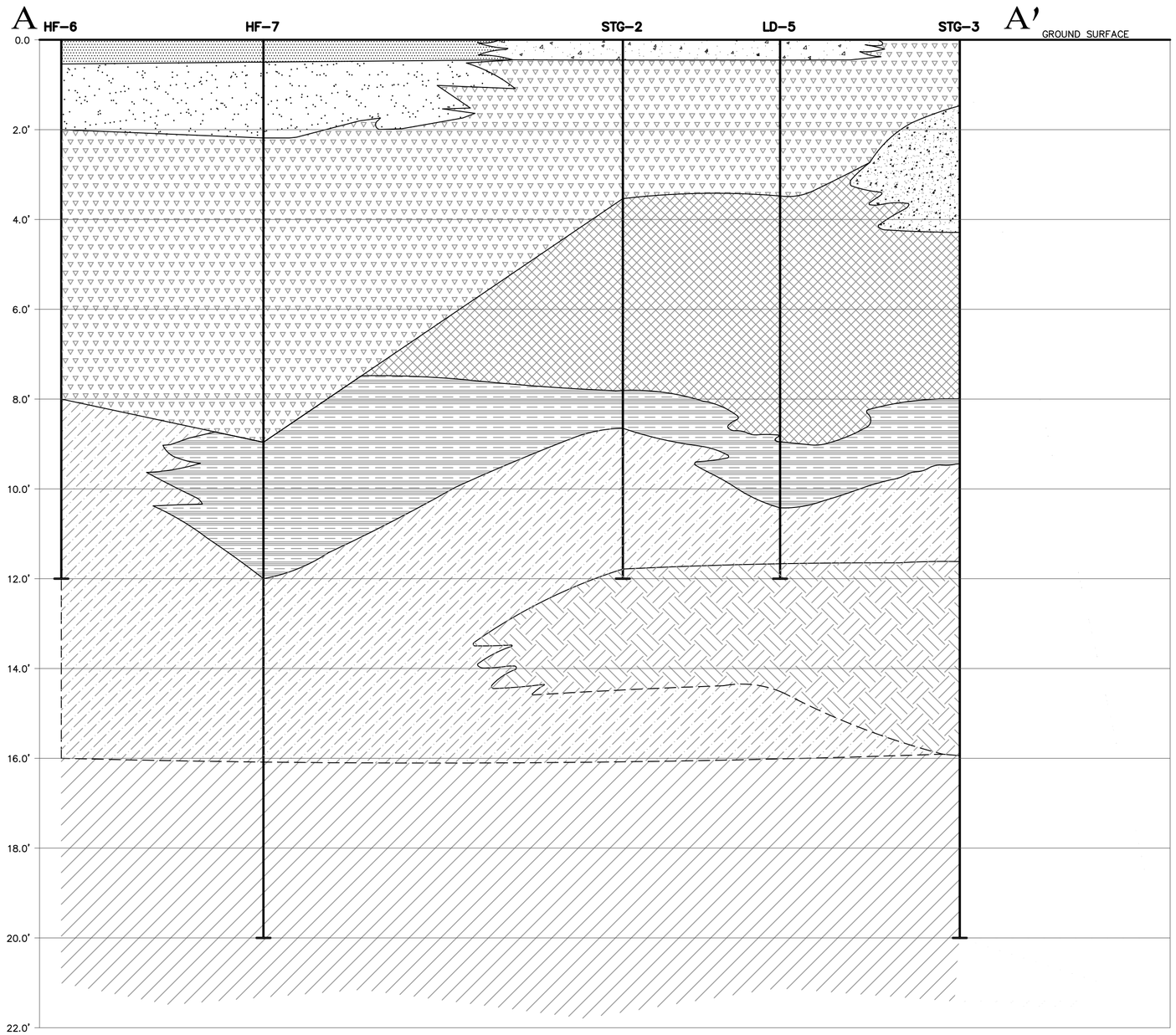
Boring No: UST-DG/HF-1R/HF-2R
Project No: 092976
Date Completed: 09/22/09
Ground Surface Elev: 20
Total Depth (ft): 12
Depth to Groundwater (ft): 6

SUBSURFACE PROFILE			SAMPLE		PID Readings above background	
Depth	Symbol	Description	Number	Recovery (inches)	0 2000 4000 6000 8000 9999	Comments
0		Ground Surface				
0		8" GRVL (qp) (m), s. silt (f) (damp) 6" yellow SAND (m-f), red-brown sand (m-f), grvl (c-m) (damp) 6" blackish tan SAND (m-f), s., grvl (m) (damp) 5" reddish pink SAND (brick) (f), clay (f) (damp) 6" GRVL (c) pinkish gray grvl, s., concrete (damp) 5" black-brown SAND (m-f), grvl (m) (damp)		36"	31.0 360.0 1952.0 269.0 277.0 1447.0 1876.0 2254.0	
4		9" black-brown SAND (m-c), .t red-orange sand (m-c) (moist) 6" gray SAND (c-f) (ash) (moist) 21" gray SAND (c-f) (ash, cinders) (moist)	UST-DG/HF-1 UST-DG/HF-1R	38"	2537.0 2537.0 2631.0 2655.0 2785.0 2856.0 2985.0 2631.0	Sample UST-DG/HF-1 collected from 6.5-7.0 ft. bsg. Submitted for PP+40 and TPH analysis. Sample UST-DG/HF-1R collected from 6.5-7.0 ft. bsg. on 9/28/09. Submitted for VO+10 analysis.
8		8" SAND (c-f), grvl (c-m) (wet) 5" GRVL (c-m), t. sand (m-f) (wet) 11" fill (china, brick, leather, paper, wood) (wet)		24"	2754.0 2556.0 2213.0 1002.0 965.0 854.0 346.0 694.0	
12		End of Borehole at 12 ft				
13						

Client: City of Newark
Project: 1700-1712 McCarter Hwy
Location: Newark
Project Manager: Eric Meyer

Field Scientist: Thomas Buchanan
Driller: AWT
Sampler Type: Geoprobe Direct Push
Bore Hole Diameter: 2 inches

APPENDIX 7
STRATIGRAPHIC CROSS SECTIONS



SECTION A-A'

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=2'

LEGEND

- TOPSOIL, SAND, GRAVEL
- SAND, CINDER, BRICK, ASH
- GREY / BROWN C-F SAND
- BLACK C-F SAND, C GRAVEL
- TAN / RED SILTY (M-F) SAND
- SAND & FILL
- CONCRETE
- CONCRETE, SLAG, ASH
- GREY / BROWN C-F SAND
- GREY SILTY SAND

CROSS SECTION A-A'
BLOCK 614, LOTS 63 AND 64
CITY OF NEWARK
1700-1712 McCARTER HWY R

SITUATED IN
CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY

BIRDSALL SERVICES GROUP
ENGINEERS & CONSULTANTS

PMK Group, Inc.
65 Jackson Drive
Cranford, NJ 07016
NJ Certificate of Authorization No. 24GA28028000
Tel.: 908.497.8900
Fax.: 908.497.9134
WWW.BIRDSALL.COM

Drawing Name:	Drawn	Designed	Checked	Released
092976-XS.dwg	JF		EJM	EJM
Job No.	**Date**	**Scale: (H) 1" = 20.0'**		**Plate No.**
092976	10-27-09	(V) 1" = 2.0'		**2**

APPENDIX 8
GEOPHYSICAL REPORT

HAGER-RICHTER
GEOSCIENCE, INC.

GEOPHYSICAL SURVEY
1700-1716 McCARTER HIGHWAY
(BLOCK 614, Lot 63 & 64)
NEWARK, NEW JERSEY

Prepared for:

PMK Group
65 Jackson Drive
Cranford, New Jersey 07016

Prepared by:

Hager-Richter Geoscience, Inc.
846 Main Street
Fords, New Jersey 08863

File 09JCC37
September, 2009

HAGER-RICHTER
GEOSCIENCE, INC.

CONSULTANTS IN GEOLOGY AND GEOPHYSICS
846 MAIN STREET
FORDS, NEW JERSEY
TELEPHONE (732) 661-0555
FAX (732) 661-0123

September 1, 2009
File 09JCC37

Eric Meyer
PMK Group
65 Jackson Drive
Cranford, New Jersey 07016

RE: Geophysical Survey
1700-1716 McCarter Highway
(Block 614, Lot 63 & 64)
Newark, New Jersey

Dear Mr. Meyer:

In this report, we summarize the results of a geophysical survey conducted on August 19, 2009 by Hager-Richter Geoscience, Inc. (H-R) at the above referenced site for PMK Group (PMK). The scope of the survey and areas of interest were specified by PMK. The geophysical survey is part of an environmental investigation by PMK.

INTRODUCTION

The Site is an inactive industrial facility located at 1700-1716 McCarter Highway in Newark, New Jersey. Figure 1 shows the general location of the site. The site is bounded on the west by the McCarter Highway and on the east by the Passaic River. Two multi-story industrial buildings are present in the site, designated as Building # 12 (North) and Building #7 (South). PMK specified the area of interest (AOI) as the accessible exterior portion of the site, approximately 1 acre in size. The accessible portions of the AOI were unpaved.

PMK was interested in determining whether underground storage tanks (USTs) are present and in locating subsurface utilities within the accessible portions of the AOI. Reportedly, several USTs may be present. At the time of the survey, no UST fill port or vent pipe was visible.

OBJECTIVES

The objectives of the geophysical survey were to detect, and if detected, to locate possible USTs and subsurface utilities in the accessible exterior portions of the AOI.

THE SURVEY

Brooks MacFarquhar and Harrison Newman of Hager-Richter conducted the field operations on August 19, 2009. The project was coordinated with Mr. Eric Meyer of PMK who was present on site and specified the area of interest for the geophysical survey. The field work was originally scheduled for July 1, 2009 but was postponed until August 19, 2009 after the vegetation was cleared from the site.

The geophysical survey was conducted using three complementary geophysical methods: time domain electromagnetic induction (EM61), ground penetrating radar (GPR), and precision utility location (PUL). The EM61 data were acquired at approximately 8-inch intervals along lines spaced 5 feet apart in the accessible portions of the area of interest. The EM survey detects and outlines areas containing buried metal. However, the EM method cannot provide information on the type of objects causing EM anomalies. In order to aid in the identification of the objects, GPR data were acquired in two mutually perpendicular directions and spaced no more than 5 feet apart across the accessible portions of the AOI. The GPR method is useful for detecting and identifying both metallic and non-metallic subsurface objects. The GPR system was used with a 250 MHz antenna and a 50 ns[1] time window. A PUL survey was conducted to aid in detecting possible subsurface utilities. No UST vent pipe and fill port were visible at the time of the survey.

EQUIPMENT

EM61. For the EM61 survey, we used a Geonics EM61-MK2 time domain electromagnetic induction metal detector. The EM61 is a time-domain electromagnetic induction type instrument designed specifically for detecting buried metal objects. An air-cored 1-meter by ½-meter transmitter coil generates a pulsed primary magnetic field in the earth, thereby inducing eddy currents in nearby metal objects. The decay of the eddy current produces a secondary magnetic field that is sensed by two receiver coils, one coincident with the transmitter and one positioned 40 cm above the main coil. By measuring the secondary magnetic field after the current in the ground has dissipated but before the current in metal objects has dissipated, the instrument responds only to the secondary magnetic field produced by metal objects. Four channels of secondary response are measured in mV and are recorded on a digital data logger. The system is generally operated by pushing the coils as a wagon with an odometer mounted on the axle to trigger the data logger automatically at approximately 8-inch intervals.

GPR. The GPR survey was conducted using a Sensors & Software Smart Cart Noggin Plus digital subsurface interface radar system. The GPR unit includes a survey wheel, which

[1] ns, abbreviation for nanosecond, 1/1,000,000,000 second. Light and the GPR signal require about 1 ns to travel 1 ft in air. The GPR signal requires about 3.5 ns to travel 1 ft in unsaturated sandy soil.

provides data at a uniform horizontal scale, increasing the precision of locating subsurface objects over that of units without the survey wheel. The system was used with a 250 MHz antenna and a 50 ns[1] time window.

GPR uses a high-frequency electromagnetic pulse (referred to herein as “radar signal”) transmitted from a radar antenna to probe the subsurface. The transmitted radar signals are reflected from subsurface interfaces of materials with contrasting electrical properties. The travel times of the radar signal can be converted to *approximate* depth below the surface by correlation with targets of known depths, including stratigraphic horizons, pipes, cables, and other utilities, or by using handbook values of velocities for the materials in the subsurface. The acquisition of GPR data was monitored in the field on a graphic recorder and the real time images were immediately available for field use. The GPR data were also recorded digitally for subsequent processing. Interpretation of the records is based on the nature and intensity of the reflected signals and on the resulting patterns.

PUL. The PUL survey was conducted using a precision electromagnetic pipe and cable locator, Radiodetection RD4000 series. The RD4000 series consists of separate transmitter and receiver. The system can be used in "passive" and "active" modes to locate buried pipes by detecting electromagnetic signals carried by the pipes. In the "passive" mode, only the receiver unit is used to detect signals carried by the pipe from nearby power lines, live signals transmitted along underground power cables, or very low frequency radio signals resulting from long wave radio transmissions that flow along buried conductors. In the "active" mode of operation, the transmitter is used to induce a signal on a target pipe, and the receiver is used to trace the signal along the length of the pipe. Our system uses a 10W transmitter.

LIMITATIONS OF THE METHODS

HAGER-RICHTER GEOSCIENCE, INC. MAKES NO GUARANTEE THAT ALL SUBSURFACE TARGETS OF INTEREST WERE DETECTED IN THIS SURVEY. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR DETECTING SUBSURFACE TARGETS THAT NORMALLY CANNOT BE DETECTED BY THE METHODS EMPLOYED OR THAT CANNOT BE DETECTED BECAUSE OF SITE CONDITIONS. GPR SIGNAL PENETRATION MAY NOT BE DEEP ENOUGH TO DETECT SOME TARGETS. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR MAINTAINING FIELD MARKOUTS AFTER LEAVING THE WORK AREA. PMK UNDERSTANDS THAT MARK-OUTS MADE DURING INCLEMENT WEATHER OR IN AREAS OF HIGH PEDESTRIAN OR VEHICULAR TRAFFIC MAY NOT LAST.

EM61. All electromagnetic geophysical methods, including the EM method used here, are affected by the presence of power lines and surface metal objects (steel sided buildings, dumpsters, vehicles, railroad tracks, reinforced concrete, etc.). Where such are present, the effects of materials in the subsurface may be masked, and firm conclusions about subsurface conditions cannot be made.

Detection and identification should be clearly differentiated. Detection is the recognition of the presence of a metal object, and the electromagnetic method is excellent for such purposes. Identification, on the other hand, is determination of the nature of the causative body (i.e., what is the body -- a cache of drums, UST, automobile, white goods, etc.?). Although the EM61 data cannot be used to *identify* buried metal objects, they provide excellent guides to the identification of some objects. For example, buried metal utilities produce anomalies with lengths many times their widths.

GPR. There are limitations of the GPR technique as used to detect and/or locate targets such as those of the objectives of this survey: (1) surface conditions, (2) electrical conductivity of the ground, (3) contrast of the electrical properties of the target and the surrounding soil, and (4) spacing of the traverses. Of these restrictions, only the last is controllable by us.

The condition of the ground surface can affect the quality of the GPR data and the depth of penetration of the GPR signal. Sites covered with snow piles, high grass, bushes, landscape structures, debris, obstacles, soil mounds, etc. limit the survey access and the coupling of the GPR antenna with the ground. In many cases, the GPR signal will not penetrate below concrete pavement, especially inside buildings, and a target may not be detectable. The GPR method also commonly does not provide useful data under canopies found at some facilities. GPR surveys inside buildings may be severely constrained by space limitations and interference from above-grade structures.

The electrical conductivity of the ground determines the attenuation of the GPR signals, and thereby limits the maximum depth of exploration. For example, the GPR signal does not penetrate clay-rich soils, and targets buried in clay might not be detected.

A definite contrast in the electrical conductivities of the surrounding ground and the target material is required to obtain a reflection of the GPR signal. If the contrast is too small, possibly due to construction details or deeply corroded metal in the target, then the reflection may be too weak to recognize and the target can be missed. In many cases, plastic, clay, asbestos concrete (transite), brick-lined, stone-lined, and other non-metallic utilities cannot be detected.

Spacing of the traverses is limited by access at many sites, but where flexibility of traverse spacing is possible, the spacing is adjusted to the size of the target. The GPR operator controls the spacing between lines, and the design of the survey is based on the dimensions of the

smallest feature of interest. Targets with dimensions smaller than the spacing between GPR survey lines can be missed.

PUL. The PUL equipment cannot detect non-metallic utilities, such as pipes constructed of vitrified clay, transite, plastic, PVC, fiberglass, and unreinforced concrete, when used in passive mode alone. Such pipes can be detected if a wire tracer is installed with access to such tracer for transmission of a signal or where access (such as floor drains and clean-outs) permits insertion of a device on which a signal can be transmitted.

In some, but not all, cases, the subsurface utility designation equipment cannot detect metal utilities reliably under reinforced concrete because the signal couples onto the metal reinforcing in the concrete. Similarly, the method commonly cannot be used adjacent to grounded metal structures such as chain link fences and metal guardrails.

In congested areas, where several utilities are bundled or located within a short distance, the signal transmitted on one utility can couple onto adjacent utilities, and the accuracy of the location indicated by the instrument decreases.

RESULTS

The geophysical survey was conducted using EM61 and GPR methods across the accessible portions of the specified AOI. The PUL method was also used to track utilities present in the AOI. Figure 2 is a color contour plot of the results of the EM61 survey, and Figure 3 shows the locations of the GPR traverses and the integrated interpretation of the geophysical data.

EM61. Interpretation of EM data is based on the relative response of the instrument in millivolts to local conditions. The instrument is not calibrated to provide an absolute measure of a particular property, such as the conductivity of the soil or the strength of the earth's magnetic field. Subsurface metal objects produce sharply defined positive anomalies when the EM61 is positioned directly over them. Acquiring data at short intervals along closely spaced lines, as was done at the subject site, provides high spatial resolution of the location and footprint of the targets. Thus, buried metal is recognized in contour plots of EM data by positive anomalies roughly corresponding to the dimensions of the buried metal.

Two broad rectangular areas of moderate to high-amplitude EM61 response are located northeast of Building 12. Several scattered EM61 anomalies, and linear anomalies interpreted as possible metallic utilities are also present and are shown in Figure 3. The GPR records were carefully examined at the location of the EM anomalies to determine their cause.

Surface metal objects also produce positive EM anomalies. Surface metal in buildings was present in the AOI. We note that the presence or absence of subsurface metal in such areas cannot be determined on the basis of the EM data alone due to the anomaly caused by the surface metal object.

GPR. The locations of the GPR traverses and integrated interpretation of the geophysical data are shown in Figure 3. Apparent GPR signal penetration for most of the area of interest was limited with reflections received for about 20-25 nsec. Based on handbook time-to-depth conversions for the GPR signal in average soils, the GPR signal penetration is estimated to have been approximately 2½ - 3 feet.

GPR reflections typical of nine small USTs were detected at the location of the broader rectangular EM anomaly described above, and the locations of the possible USTs are shown in Figure 3. Figure 4 shows an example GPR record for a traverse across several of the possible USTs. We note that reflections typical of USTs were not observed in other portions of the broad high amplitude EM anomaly described above, but based on the similarity of the EM anomalies, we infer that additional possible USTs may be present at a depth greater than the effective depth of penetration of the GPR signal (approximately 2½ - 3 feet).

A partially exposed concrete pad was observed at the location of a high amplitude EM anomaly located next to the northeast wall of Building 12. The GPR records at that location exhibit reflections typical of rebar, therefore we infer that the EM anomaly is caused by reinforcement in the concrete pad, as shown on Figure 3.

No other USTs were detected at the location of small scattered EM anomalies. The GPR data were also used to confirm the location of utilities detected with the EM61 and the PUL equipment. Small scattered unidentified buried objects were also detected. GPR reflections detected near the northeast wall of Building 7 were interpreted to be caused by four possible buried manholes, and their locations are shown in Figure 3. A possible buried unreinforced concrete pad was also detected, and its location is shown in Figure 3.

PUL. The PUL transmitter was attached to a fire hydrant located in the AOI. We could not access to the building to connect the PUL transmitter to utilities present inside. We also conducted a PUL survey in “passive” mode to detect signals carried by utilities from nearby power lines. PMK specified that spark hazard was present at the vicinity of a gas valve located near the southwest wall of Building 7, and therefore, the PUL could not be used to trace gas piping associated with the gas valve.

CONCLUSIONS

Based on the geophysical survey performed by Hager-Richter Geoscience at 1700-1716 McCarter Highway in Newark, New Jersey, we conclude that:

- Nine possible USTs were detected at the location of a broad EM61 anomaly. Additional USTs may be present at other locations within breadth of the EM61 anomaly, but if so, they are located deeper than the effective depth of GPR signal penetration. No other UST with: (1) electrical properties to produce an EM61 anomaly or sufficiently contrasting with the surrounding soils to produce GPR reflections, or (2) a capacity of 500 gallons or more was detected within the effective depth of penetration of the GPR signal. *Whether a UST occurs at a depth greater than the effective depth of penetration of the GPR signal (approximately 2.5-3.0 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.*

- A reinforced concrete pad and a buried unreinforced concrete pad were detected

- Segments of possible utilities, areas of buried metal, scattered small unidentified buried objects were detected.

- Four possible buried manholes were detected.

LIMITATIONS ON USE OF REPORT

This letter report was prepared for the exclusive use of PMK Corporation (Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to the Client by Hager-Richter Geoscience, Inc. (H-R) in the performance of its work. The Report relates solely to the specific project for which H-R has been retained and shall not be used or relied upon by the Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of H-R. Any unpermitted use by the Client or any third party shall be at the Client's or such third party's own risk and without any liability to H-R.

H-R has used reasonable care, skill, competence and judgment in the performance of its services for this project consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by H-R should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be

modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, H-R makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

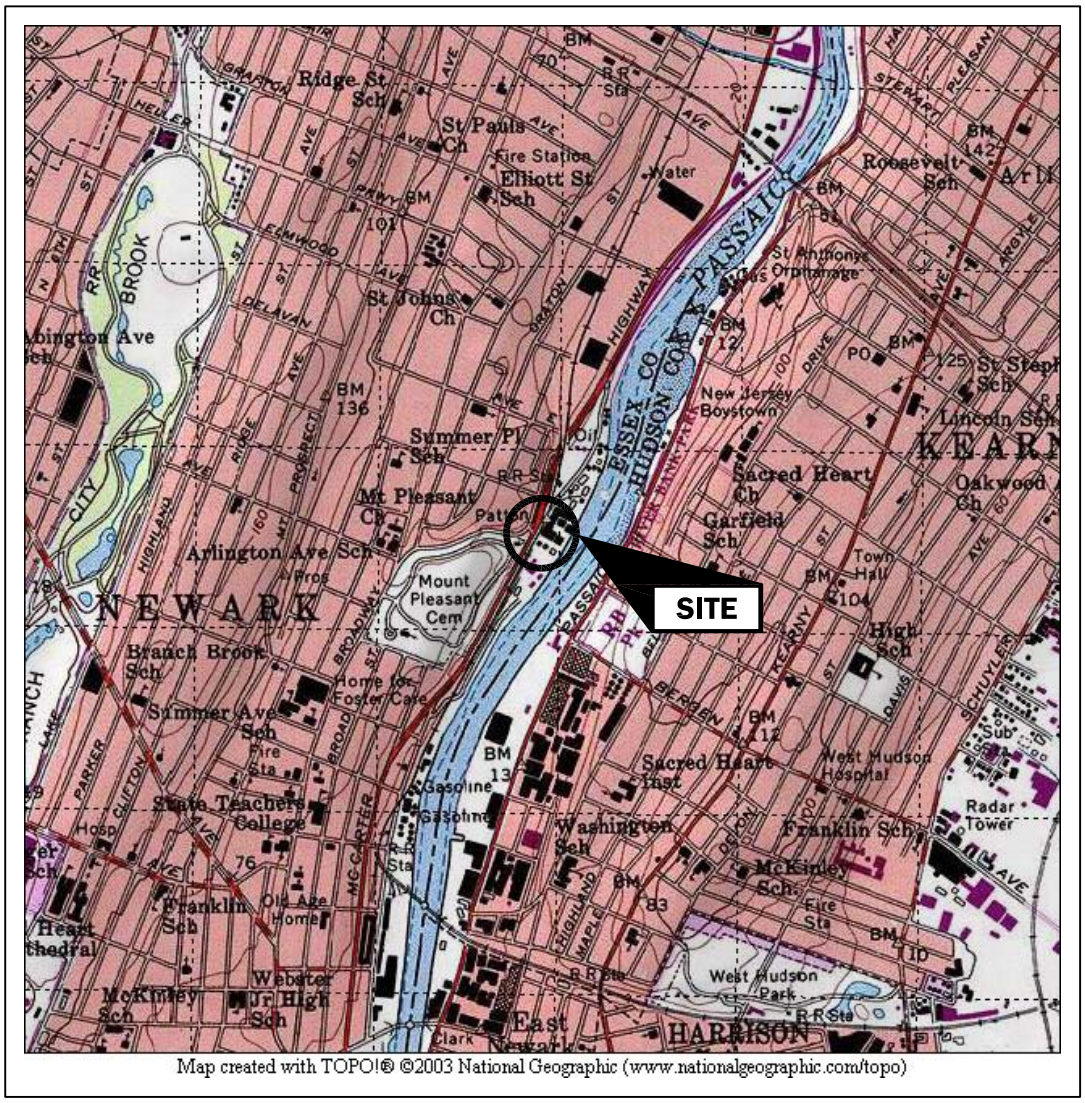
If you have any questions or comments on this letter report, please contact us at your convenience. It has been a pleasure to work with PMK on this project. We look forward to working with you again in the future.

Sincerely yours,
HAGER-RICHTER GEOSCIENCE, INC.

by José Carlos Cambero Calzada
Senior Geophysicist

Dorothy Richter, P.G.
President

Attachments: Figures 1 - 4



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

LOCATION

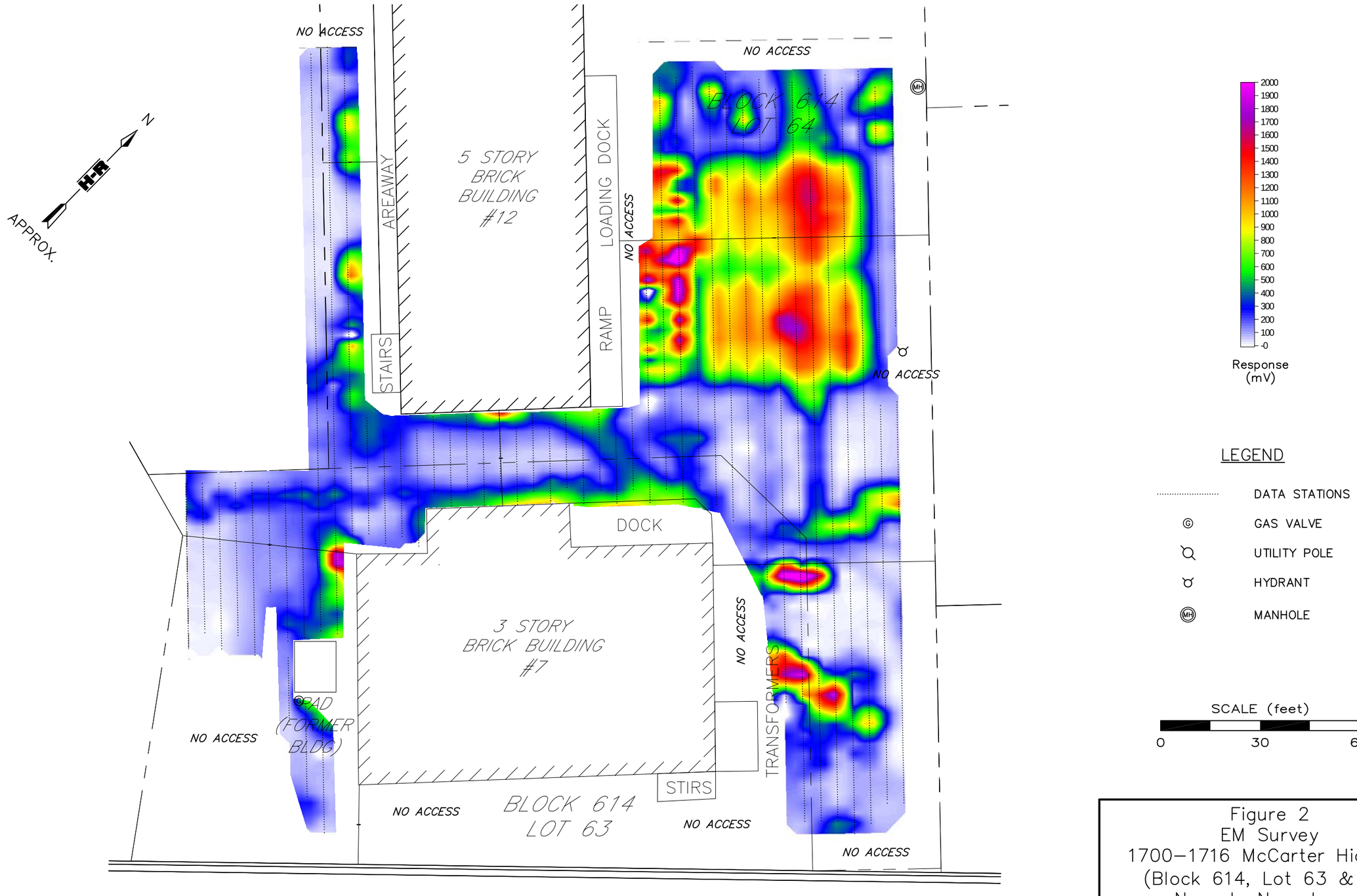
SCALE (feet)

0 2000 4000

Figure 1
General Site Location
1700–1716 McCarter Highway
(Block 614, Lot 63 & 64)
Newark, New Jersey

File 09JCC37 | August, 2009

HAGER–RICHTER GEOSCIENCE, INC.
Fords, New Jersey



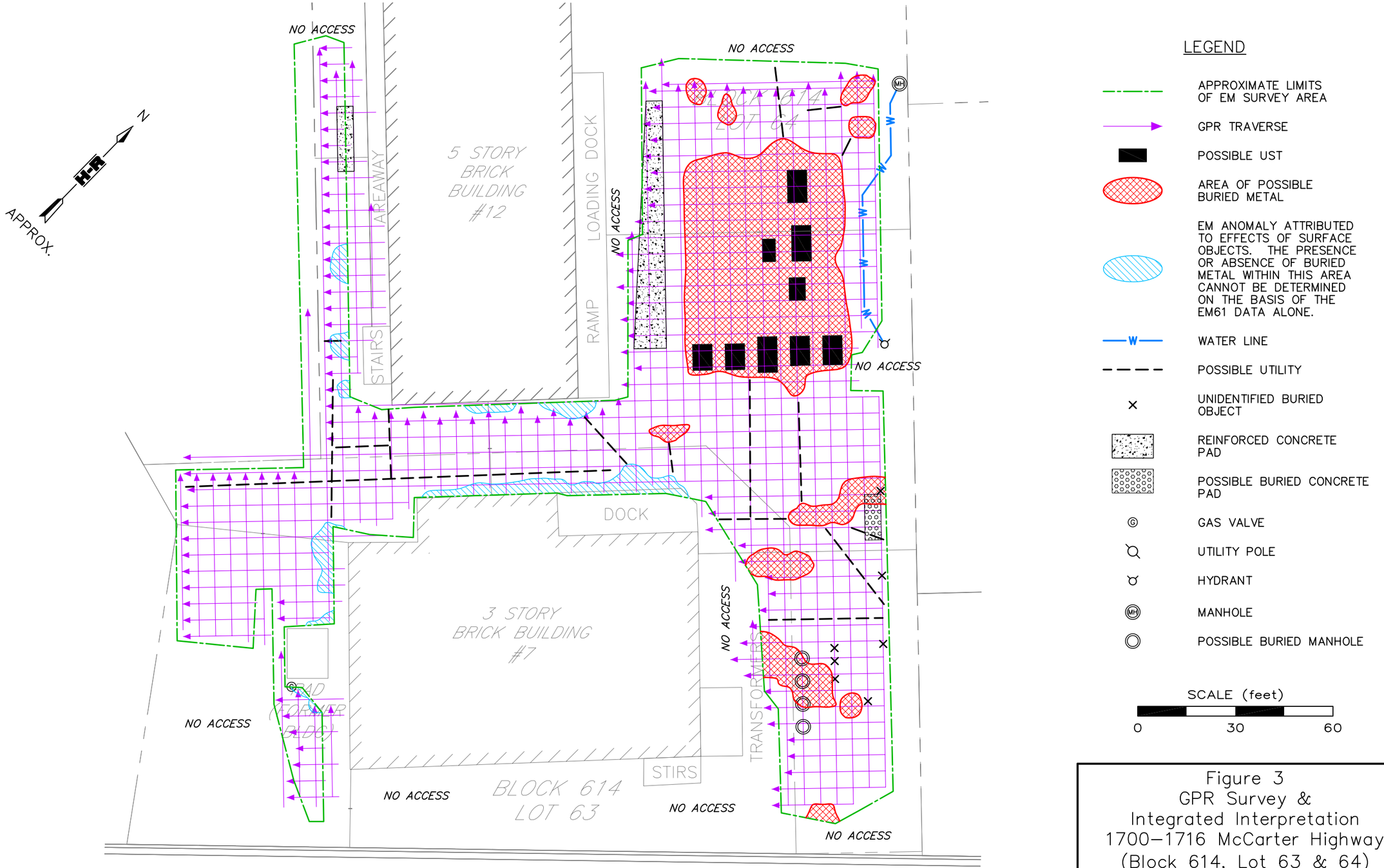
NOTES:

1. Modified from site plan provided by PMK Group.
2. Data were recorded with Geonics EM61–MK2. Differential response shown.
3 Differential response equals top coil response – bottom coil response.

Figure 2
EM Survey
1700–1716 McCarter Highway
(Block 614, Lot 63 & 64)
Newark, New Jersey

File 09JCC37 | August, 2009

HAGER–RICHTER GEOSCIENCE, INC.
Fords, New Jersey



LEGEND

- APPROXIMATE LIMITS OF EM SURVEY AREA
- GPR TRAVERSE
- POSSIBLE UST
- AREA OF POSSIBLE BURIED METAL
- EM ANOMALY ATTRIBUTED TO EFFECTS OF SURFACE OBJECTS. THE PRESENCE OR ABSENCE OF BURIED METAL WITHIN THIS AREA CANNOT BE DETERMINED ON THE BASIS OF THE EM61 DATA ALONE.
- WATER LINE
- POSSIBLE UTILITY
- UNIDENTIFIED BURIED OBJECT
- REINFORCED CONCRETE PAD
- POSSIBLE BURIED CONCRETE PAD
- GAS VALVE
- UTILITY POLE
- HYDRANT
- MANHOLE
- POSSIBLE BURIED MANHOLE

SCALE (feet)

0 30 60

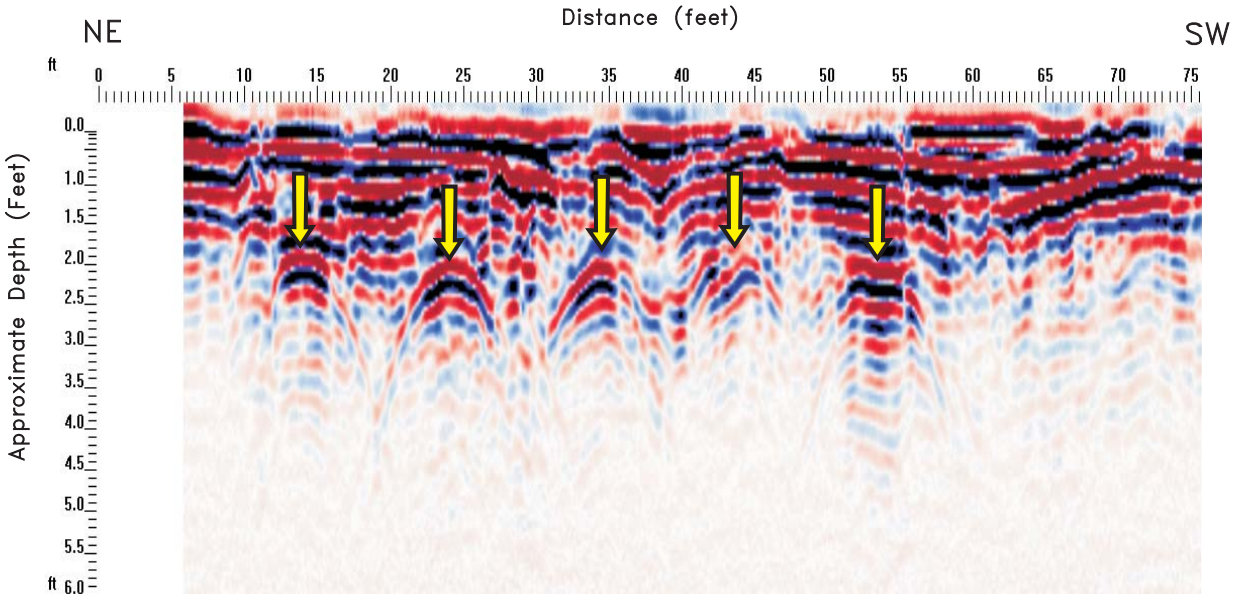
Figure 3
GPR Survey &
Integrated Interpretation
1700–1716 McCarter Highway
(Block 614, Lot 63 & 64)
Newark, New Jersey

File 09JCC37 | August, 2009

HAGER–RICHTER GEOSCIENCE, INC.
Fords, New Jersey

NOTE:

Modified from site plan provided by PMK Group.



Legend

Possible UST

Notes:

1. Shading represents relative amplitude of reflected signals. Lighter shades are lower amplitude; Darker shades are higher amplitude.
2. Accuracy of distance along the GPR record is approximately ±1 foot.

Figure 4
GPR Records of Possible USTs
1700–1713 McCarter Boulevard
(Block 614,Lot 63 & 64)
Newark, New Jersey

FILE 09JCC37 | September 2009

HAGER–RICHTER GEOSCIENCE, INC.
Fords, New Jersey

APPENDIX 9
NOAA TIDE CHARTS FOR 2009

Click HERE for printable version

2009 NOAA Tide Predictions: Belleville

(Reference station: New York, Corrections Applied: Times: High +0 hr. 9 min., Low +0 hr. 49 min., Heights: High *1.23, Low *1.19)

January - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
01/01/2009	Thu	05:35AM LST	0.6	L	10:59AM LST	5.3	H	06:10PM LST	0.1	L	11:39PM LST	4.8	H			
01/02/2009	Fri	06:14AM LST	0.7	L	11:41AM LST	5.2	H	06:45PM LST	0.2	L						
01/03/2009	Sat	12:19AM LST	4.9	H	07:08AM LST	1.0	L	12:29PM LST	4.9	H	07:30PM LST	0.4	L			
01/04/2009	Sun	01:05AM LST	5.2	H	08:30AM LST	1.0	L	01:22PM LST	4.8	H	08:33PM LST	0.4	L			
01/05/2009	Mon	01:56AM LST	5.4	H	09:47AM LST	0.7	L	02:22PM LST	4.7	H	09:43PM LST	0.2	L			
01/06/2009	Tue	02:55AM LST	5.7	H	10:52AM LST	0.4	L	03:31PM LST	4.7	H	10:47PM LST	0.0	L			
01/07/2009	Wed	04:03AM LST	5.9	H	11:51AM LST	0.0	L	04:45PM LST	4.8	H	11:46PM LST	-0.2	L			
01/08/2009	Thu	05:11AM LST	6.3	H	12:47PM LST	-0.4	L	05:52PM LST	5.0	H						
01/09/2009	Fri	12:44AM LST	-0.6	L	06:14AM LST	6.6	H	01:42PM LST	-0.8	L	06:51PM LST	5.4	H			
01/10/2009	Sat	01:41AM LST	-0.8	L	07:09AM LST	6.9	H	02:35PM LST	-1.1	L	07:45PM LST	5.7	H			
01/11/2009	Sun	02:37AM LST	-1.1	L	08:02AM LST	7.0	H	03:26PM LST	-1.3	L	08:38PM LST	5.9	H			
01/12/2009	Mon	03:30AM LST	-1.1	L	08:54AM LST	7.0	H	04:14PM LST	-1.4	L	09:32PM LST	6.0	H			
01/13/2009	Tue	04:21AM LST	-1.1	L	09:47AM LST	6.8	H	05:01PM LST	-1.3	L	10:27PM LST	6.0	H			
01/14/2009	Wed	05:12AM LST	-0.8	L	10:41AM LST	6.4	H	05:48PM LST	-1.1	L	11:22PM LST	5.9	H			
01/15/2009	Thu	06:03AM LST	-0.5	L	11:34AM LST	5.9	H	06:36PM LST	-0.7	L						
01/16/2009	Fri	12:14AM LST	5.8	H	06:58AM LST	0.0	L	12:26PM LST	5.4	H	07:26PM LST	-0.2	L			
01/17/2009	Sat	01:05AM LST	5.7	H	07:59AM LST	0.4	L	01:18PM LST	5.0	H	08:21PM LST	0.1	L			
01/18/2009	Sun	01:55AM LST	5.4	H	09:03AM LST	0.6	L	02:10PM LST	4.6	H	09:18PM LST	0.5	L			
01/19/2009	Mon	02:47AM LST	5.3	H	10:05AM LST	0.7	L	03:08PM LST	4.3	H	10:14PM LST	0.6	L			
01/20/2009	Tue	03:43AM LST	5.2	H	11:01AM LST	0.6	L	04:10PM LST	4.2	H	11:06PM LST	0.6	L			
01/21/2009	Wed	04:41AM LST	5.2	H	11:52AM LST	0.5	L	05:11PM LST	4.2	H	11:54PM LST	0.6	L			
01/22/2009	Thu	05:35AM LST	5.3	H	12:40PM LST	0.4	L	06:04PM LST	4.4	H						
01/23/2009	Fri	12:41AM LST	0.5	L	06:23AM LST	5.5	H	01:25PM LST	0.1	L	06:50PM LST	4.6	H			
01/24/2009	Sat	01:27AM LST	0.4	L	07:05AM LST	5.7	H	02:08PM LST	0.0	L	07:31PM LST	4.8	H			
01/25/2009	Sun	02:10AM LST	0.2	L	07:43AM LST	5.8	H	02:49PM LST	-0.2	L	08:09PM LST	4.9	H			
01/26/2009	Mon	02:52AM LST	0.0	L	08:18AM LST	5.9	H	03:28PM LST	-0.4	L	08:44PM LST	5.0	H			
01/27/2009	Tue	03:31AM LST	0.0	L	08:51AM LST	5.8	H	04:03PM LST	-0.4	L	09:16PM LST	5.0	H			
01/28/2009	Wed	04:09AM LST	0.0	L	09:22AM LST	5.8	H	04:36PM LST	-0.4	L	09:47PM LST	5.2	H			
01/29/2009	Thu	04:44AM LST	0.0	L	09:54AM LST	5.5	H	05:07PM LST	-0.4	L	10:19PM LST	5.2	H			
01/30/2009	Fri	05:20AM LST	0.1	L	10:30AM LST	5.4	H	05:36PM LST	-0.2	L	10:56PM LST	5.3	H			
01/31/2009	Sat	05:58AM LST	0.4	L	11:13AM LST	5.2	H	06:08PM LST	0.0	L	11:39PM LST	5.4	H			

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

February - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
02/01/2009	Sun	06:47AM LST	0.5	L	12:03PM LST	4.9	H	06:49PM LST	0.1	L						
02/02/2009	Mon	12:29AM LST	5.5	H	08:00AM LST	0.7	L	12:59PM LST	4.7	H	07:49PM LST	0.4	L			
02/03/2009	Tue	01:24AM LST	5.5	H	09:22AM LST	0.6	L	02:02PM LST	4.6	H	09:13PM LST	0.4	L			
02/04/2009	Wed	02:28AM LST	5.7	H	10:32AM LST	0.4	L	03:14PM LST	4.6	H	10:28PM LST	0.2	L			
02/05/2009	Thu	03:42AM LST	5.8	H	11:33AM LST	0.0	L	04:33PM LST	4.7	H	11:33PM LST	-0.1	L			
02/06/2009	Fri	04:59AM LST	6.0	H	12:30PM LST	-0.4	L	05:42PM LST	5.0	H						
02/07/2009	Sat	12:32AM LST	-0.5	L	06:05AM LST	6.4	H	01:25PM LST	-0.7	L	06:41PM LST	5.5	H			
02/08/2009	Sun	01:29AM LST	-0.7	L	07:01AM LST	6.8	H	02:16PM LST	-1.1	L	07:33PM LST	5.9	H			
02/09/2009	Mon	02:24AM LST	-1.1	L	07:51AM LST	6.9	H	03:05PM LST	-1.3	L	08:22PM LST	6.3	H			
02/10/2009	Tue	03:15AM LST	-1.2	L	08:39AM LST	6.8	H	03:51PM LST	-1.3	L	09:11PM LST	6.4	H			
02/11/2009	Wed	04:04AM LST	-1.1	L	09:27AM LST	6.5	H	04:35PM LST	-1.2	L	10:00PM LST	6.4	H			
02/12/2009	Thu	04:52AM LST	-0.8	L	10:16AM LST	6.2	H	05:17PM LST	-1.0	L	10:49PM LST	6.2	H			
02/13/2009	Fri	05:39AM LST	-0.5	L	11:05AM LST	5.8	H	06:00PM LST	-0.5	L	11:38PM LST	6.0	H			
02/14/2009	Sat	06:28AM LST	0.0	L	11:55AM LST	5.3	H	06:44PM LST	0.0	L						
02/15/2009	Sun	12:26AM LST	5.7	H	07:22AM LST	0.5	L	12:45PM LST	4.8	H	07:34PM LST	0.5	L			
02/16/2009	Mon	01:14AM LST	5.4	H	08:23AM LST	0.8	L	01:37PM LST	4.4	H	08:32PM LST	1.0	L			
02/17/2009	Tue	02:04AM LST	5.2	H	09:27AM LST	1.0	L	02:33PM LST	4.2	H	09:35PM LST	1.1	L			
02/18/2009	Wed	03:00AM LST	4.9	H	10:27AM LST	1.0	L	03:35PM LST	4.1	H	10:33PM LST	1.1	L			
02/19/2009	Thu	04:02AM LST	4.9	H	11:21AM LST	0.8	L	04:39PM LST	4.2	H	11:26PM LST	1.0	L			
02/20/2009	Fri	05:03AM LST	5.0	H	12:09PM LST	0.6	L	05:36PM LST	4.4	H						
02/21/2009	Sat	12:15AM LST	0.7	L	05:55AM LST	5.3	H	12:54PM LST	0.4	L	06:24PM LST	4.7	H			
02/22/2009	Sun	01:01AM LST	0.5	L	06:39AM LST	5.5	H	01:37PM LST	0.1	L	07:04PM LST	5.0	H			
02/23/2009	Mon	01:45AM LST	0.2	L	07:17AM LST	5.8	H	02:17PM LST	-0.1	L	07:40PM LST	5.3	H			
02/24/2009	Tue	02:28AM LST	0.0	L	07:52AM LST	5.9	H	02:55PM LST	-0.2	L	08:12PM LST	5.5	H			
02/25/2009	Wed	03:09AM LST	-0.1	L	08:24AM LST	5.9	H	03:31PM LST	-0.4	L	08:42PM LST	5.7	H			
02/26/2009	Thu	03:48AM LST	-0.2	L	08:56AM LST	5.9	H	04:04PM LST	-0.5	L	09:11PM LST	5.8	H			
02/27/2009	Fri	04:27AM LST	-0.2	L	09:30AM LST	5.7	H	04:37PM LST	-0.4	L	09:44PM LST	5.9	H			
02/28/2009	Sat	05:06AM LST	-0.1	L	10:09AM LST	5.5	H	05:09PM LST	-0.2	L	10:23PM LST	6.0	H			

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

March - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
03/01/2009	Sun	05:47AM LST	0.0	L	10:56AM LST	5.3	H	05:44PM LST	0.0	L	11:10PM LST	6.0	H			
03/02/2009	Mon	06:37AM LST	0.4	L	11:50AM LST	5.0	H	06:28PM LST	0.2	L						
03/03/2009	Tue	12:05AM LST	5.9	H	07:46AM LST	0.6	L	12:50PM LST	4.8	H	07:32PM LST	0.5	L			
03/04/2009	Wed	01:06AM LST	5.8	H	09:04AM LST	0.6	L	01:56PM LST	4.7	H	09:01PM LST	0.6	L			
03/05/2009	Thu	02:14AM LST	5.7	H	10:15AM LST	0.5	L	03:09PM LST	4.8	H	10:17PM LST	0.5	L			
03/06/2009	Fri	03:32AM LST	5.8	H	11:16AM LST	0.1	L	04:24PM LST	5.0	H	11:22PM LST	0.1	L			
03/07/2009	Sat	04:49AM LST	5.9	H	12:12PM LST	-0.2	L	05:31PM LST	5.4	H						
03/08/2009	Sun	12:20AM LST	-0.2	L	06:53AM LDT	6.3	H	02:04PM LDT	-0.6	L	07:27PM LDT	5.9	H			
03/09/2009	Mon	02:16AM LDT	-0.6	L	07:47AM LDT	6.5	H	02:53PM LDT	-0.8	L	08:16PM LDT	6.4	H			
03/10/2009	Tue	03:08AM LDT	-0.7	L	08:34AM LDT	6.6	H	03:40PM LDT	-1.0	L	09:02PM LDT	6.6	H			
03/11/2009	Wed	03:58AM LDT	-0.8	L	09:19AM LDT	6.5	H	04:24PM LDT	-1.0	L	09:46PM LDT	6.8	H			
03/12/2009	Thu	04:46AM LDT	-0.8	L	10:04AM LDT	6.3	H	05:06PM LDT	-0.8	L	10:30PM LDT	6.6	H			
03/13/2009	Fri	05:31AM LDT	-0.7	L	10:49AM LDT	6.0	H	05:46PM LDT	-0.5	L	11:14PM LDT	6.5	H			
03/14/2009	Sat	06:15AM LDT	-0.4	L	11:37AM LDT	5.5	H	06:25PM LDT	0.0	L	11:59PM LDT	6.2	H			
03/15/2009	Sun	06:59AM LDT	0.1	L	12:26PM LDT	5.2	H	07:04PM LDT	0.5	L						
03/16/2009	Mon	12:45AM LDT	5.8	H	07:47AM LDT	0.5	L	01:16PM LDT	4.8	H	07:47PM LDT	1.0	L			
03/17/2009	Tue	01:32AM LDT	5.5	H	08:42AM LDT	1.0	L	02:07PM LDT	4.6	H	08:42PM LDT	1.3	L			
03/18/2009	Wed	02:22AM LDT	5.2	H	09:45AM LDT	1.2	L	03:01PM LDT	4.3	H	09:52PM LDT	1.5	L			
03/19/2009	Thu	03:16AM LDT	5.0	H	10:48AM LDT	1.2	L	03:59PM LDT	4.3	H	10:57PM LDT	1.5	L			
03/20/2009	Fri	04:17AM LDT	4.9	H	11:43AM LDT	1.1	L	05:01PM LDT	4.4	H	11:54PM LDT	1.3	L			
03/21/2009	Sat	05:20AM LDT	5.0	H	12:32PM LDT	1.0	L	05:59PM LDT	4.7	H						
03/22/2009	Sun	12:44AM LDT	1.1	L	06:16AM LDT	5.2	H	01:16PM LDT	0.6	L	06:48PM LDT	5.0	H			
03/23/2009	Mon	01:31AM LDT	0.7	L	07:03AM LDT	5.5	H	01:58PM LDT	0.4	L	07:29PM LDT	5.4	H			
03/24/2009	Tue	02:17AM LDT	0.5	L	07:43AM LDT	5.7	H	02:38PM LDT	0.1	L	08:04PM LDT	5.8	H			
03/25/2009	Wed	03:01AM LDT	0.1	L	08:19AM LDT	5.9	H	03:17PM LDT	-0.1	L	08:36PM LDT	6.2	H			
03/26/2009	Thu	03:44AM LDT	-0.1	L	08:54AM LDT	5.9	H	03:55PM LDT	-0.2	L	09:06PM LDT	6.4	H			
03/27/2009	Fri	04:27AM LDT	-0.2	L	09:30AM LDT	5.9	H	04:33PM LDT	-0.2	L	09:39PM LDT	6.6	H			
03/28/2009	Sat	05:09AM LDT	-0.4	L	10:09AM LDT	5.8	H	05:10PM LDT	-0.2	L	10:16PM LDT	6.6	H			
03/29/2009	Sun	05:52AM LDT	-0.4	L	10:54AM LDT	5.7	H	05:48PM LDT	-0.1	L	11:01PM LDT	6.6	H			
03/30/2009	Mon	06:38AM LDT	-0.1	L	11:48AM LDT	5.4	H	06:31PM LDT	0.1	L	11:54PM LDT	6.4	H			
03/31/2009	Tue	07:31AM LDT	0.1	L	12:48PM LDT	5.3	H	07:22PM LDT	0.5	L						

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

April - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
04/01/2009	Wed	12:55AM LDT	6.3	H	08:36AM LDT	0.5	L	01:51PM LDT	5.2	H	08:31PM LDT	0.7	L			
04/02/2009	Thu	02:00AM LDT	6.0	H	09:48AM LDT	0.5	L	02:56PM LDT	5.2	H	09:54PM LDT	0.8	L			
04/03/2009	Fri	03:09AM LDT	5.9	H	10:56AM LDT	0.4	L	04:04PM LDT	5.3	H	11:07PM LDT	0.7	L			
04/04/2009	Sat	04:22AM LDT	5.8	H	11:55AM LDT	0.1	L	05:12PM LDT	5.5	H						
04/05/2009	Sun	12:09AM LDT	0.4	L	05:33AM LDT	5.9	H	12:49PM LDT	-0.1	L	06:15PM LDT	5.9	H			
04/06/2009	Mon	01:07AM LDT	0.1	L	06:35AM LDT	6.0	H	01:39PM LDT	-0.4	L	07:08PM LDT	6.4	H			
04/07/2009	Tue	02:00AM LDT	-0.2	L	07:27AM LDT	6.2	H	02:26PM LDT	-0.5	L	07:55PM LDT	6.8	H			
04/08/2009	Wed	02:51AM LDT	-0.4	L	08:14AM LDT	6.3	H	03:11PM LDT	-0.5	L	08:38PM LDT	6.9	H			
04/09/2009	Thu	03:40AM LDT	-0.5	L	08:58AM LDT	6.2	H	03:55PM LDT	-0.4	L	09:19PM LDT	7.0	H			
04/10/2009	Fri	04:26AM LDT	-0.5	L	09:41AM LDT	6.0	H	04:36PM LDT	-0.2	L	09:59PM LDT	6.9	H			
04/11/2009	Sat	05:09AM LDT	-0.4	L	10:25AM LDT	5.8	H	05:16PM LDT	0.1	L	10:40PM LDT	6.6	H			
04/12/2009	Sun	05:51AM LDT	-0.1	L	11:11AM LDT	5.4	H	05:54PM LDT	0.5	L	11:22PM LDT	6.3	H			
04/13/2009	Mon	06:33AM LDT	0.2	L	12:00PM LDT	5.2	H	06:31PM LDT	0.8	L						
04/14/2009	Tue	12:07AM LDT	5.9	H	07:16AM LDT	0.6	L	12:50PM LDT	4.9	H	07:09PM LDT	1.2	L			
04/15/2009	Wed	12:55AM LDT	5.7	H	08:04AM LDT	1.0	L	01:41PM LDT	4.7	H	07:55PM LDT	1.5	L			
04/16/2009	Thu	01:44AM LDT	5.3	H	09:01AM LDT	1.2	L	02:31PM LDT	4.6	H	09:02PM LDT	1.8	L			
04/17/2009	Fri	02:34AM LDT	5.2	H	10:03AM LDT	1.3	L	03:22PM LDT	4.6	H	10:15PM LDT	1.8	L			
04/18/2009	Sat	03:28AM LDT	5.0	H	10:59AM LDT	1.2	L	04:16PM LDT	4.7	H	11:17PM LDT	1.7	L			
04/19/2009	Sun	04:25AM LDT	5.0	H	11:48AM LDT	1.1	L	05:11PM LDT	4.9	H						
04/20/2009	Mon	12:10AM LDT	1.3	L	05:22AM LDT	5.2	H	12:32PM LDT	0.8	L	06:01PM LDT	5.3	H			
04/21/2009	Tue	12:58AM LDT	1.0	L	06:15AM LDT	5.3	H	01:14PM LDT	0.6	L	06:43PM LDT	5.8	H			
04/22/2009	Wed	01:46AM LDT	0.6	L	07:01AM LDT	5.5	H	01:55PM LDT	0.4	L	07:21PM LDT	6.3	H			
04/23/2009	Thu	02:33AM LDT	0.2	L	07:43AM LDT	5.7	H	02:37PM LDT	0.1	L	07:57PM LDT	6.6	H			
04/24/2009	Fri	03:19AM LDT	-0.1	L	08:24AM LDT	5.8	H	03:20PM LDT	0.0	L	08:34PM LDT	7.0	H			
04/25/2009	Sat	04:06AM LDT	-0.4	L	09:07AM LDT	5.9	H	04:03PM LDT	-0.1	L	09:13PM LDT	7.1	H			
04/26/2009	Sun	04:53AM LDT	-0.5	L	09:52AM LDT	5.9	H	04:48PM LDT	-0.1	L	09:57PM LDT	7.1	H			
04/27/2009	Mon	05:40AM LDT	-0.5	L	10:44AM LDT	5.8	H	05:34PM LDT	0.0	L	10:48PM LDT	7.0	H			
04/28/2009	Tue	06:29AM LDT	-0.4	L	11:44AM LDT	5.7	H	06:24PM LDT	0.1	L	11:47PM LDT	6.8	H			
04/29/2009	Wed	07:23AM LDT	-0.1	L	12:47PM LDT	5.5	H	07:20PM LDT	0.5	L						
04/30/2009	Thu	12:53AM LDT	6.5	H	08:24AM LDT	0.1	L	01:50PM LDT	5.5	H	08:28PM LDT	0.7	L			

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

May - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
05/01/2009	Fri	01:57AM	LDT	6.3	H	09:29AM	LDT	0.2	L	02:50PM	LDT	5.7	H	09:42PM	LDT	0.8	L
05/02/2009	Sat	03:01AM	LDT	6.0	H	10:33AM	LDT	0.2	L	03:52PM	LDT	5.8	H	10:52PM	LDT	0.7	L
05/03/2009	Sun	04:05AM	LDT	5.9	H	11:30AM	LDT	0.1	L	04:53PM	LDT	6.0	H	11:54PM	LDT	0.6	L
05/04/2009	Mon	05:10AM	LDT	5.8	H	12:22PM	LDT	0.0	L	05:52PM	LDT	6.3	H				
05/05/2009	Tue	12:50AM	LDT	0.4	L	06:10AM	LDT	5.8	H	01:10PM	LDT	-0.1	L	06:45PM	LDT	6.6	H
05/06/2009	Wed	01:42AM	LDT	0.1	L	07:04AM	LDT	5.8	H	01:57PM	LDT	0.0	L	07:31PM	LDT	6.9	H
05/07/2009	Thu	02:32AM	LDT	0.0	L	07:52AM	LDT	5.8	H	02:42PM	LDT	0.0	L	08:13PM	LDT	7.0	H
05/08/2009	Fri	03:20AM	LDT	-0.1	L	08:37AM	LDT	5.7	H	03:25PM	LDT	0.1	L	08:53PM	LDT	6.9	H
05/09/2009	Sat	04:05AM	LDT	-0.1	L	09:20AM	LDT	5.7	H	04:08PM	LDT	0.4	L	09:32PM	LDT	6.8	H
05/10/2009	Sun	04:48AM	LDT	-0.1	L	10:03AM	LDT	5.4	H	04:48PM	LDT	0.6	L	10:11PM	LDT	6.5	H
05/11/2009	Mon	05:29AM	LDT	0.1	L	10:48AM	LDT	5.3	H	05:27PM	LDT	0.8	L	10:51PM	LDT	6.3	H
05/12/2009	Tue	06:09AM	LDT	0.2	L	11:36AM	LDT	5.0	H	06:04PM	LDT	1.1	L	11:35PM	LDT	6.0	H
05/13/2009	Wed	06:49AM	LDT	0.6	L	12:26PM	LDT	4.9	H	06:41PM	LDT	1.3	L				
05/14/2009	Thu	12:21AM	LDT	5.8	H	07:32AM	LDT	0.8	L	01:14PM	LDT	4.8	H	07:21PM	LDT	1.5	L
05/15/2009	Fri	01:07AM	LDT	5.5	H	08:18AM	LDT	1.1	L	01:59PM	LDT	4.8	H	08:14PM	LDT	1.8	L
05/16/2009	Sat	01:52AM	LDT	5.3	H	09:11AM	LDT	1.2	L	02:43PM	LDT	4.9	H	09:26PM	LDT	1.9	L
05/17/2009	Sun	02:37AM	LDT	5.2	H	10:06AM	LDT	1.2	L	03:27PM	LDT	5.0	H	10:34PM	LDT	1.8	L
05/18/2009	Mon	03:25AM	LDT	5.2	H	10:56AM	LDT	1.1	L	04:13PM	LDT	5.3	H	11:32PM	LDT	1.4	L
05/19/2009	Tue	04:19AM	LDT	5.0	H	11:42AM	LDT	0.8	L	05:01PM	LDT	5.7	H				
05/20/2009	Wed	12:24AM	LDT	1.1	L	05:17AM	LDT	5.2	H	12:27PM	LDT	0.6	L	05:49PM	LDT	6.0	H
05/21/2009	Thu	01:14AM	LDT	0.7	L	06:15AM	LDT	5.3	H	01:12PM	LDT	0.4	L	06:36PM	LDT	6.5	H
05/22/2009	Fri	02:05AM	LDT	0.4	L	07:08AM	LDT	5.5	H	01:59PM	LDT	0.2	L	07:22PM	LDT	6.9	H
05/23/2009	Sat	02:55AM	LDT	-0.1	L	07:58AM	LDT	5.7	H	02:49PM	LDT	0.0	L	08:07PM	LDT	7.3	H
05/24/2009	Sun	03:46AM	LDT	-0.4	L	08:47AM	LDT	5.8	H	03:40PM	LDT	-0.1	L	08:54PM	LDT	7.4	H
05/25/2009	Mon	04:36AM	LDT	-0.6	L	09:39AM	LDT	5.9	H	04:31PM	LDT	-0.1	L	09:45PM	LDT	7.4	H
05/26/2009	Tue	05:26AM	LDT	-0.6	L	10:35AM	LDT	5.9	H	05:23PM	LDT	-0.1	L	10:41PM	LDT	7.3	H
05/27/2009	Wed	06:16AM	LDT	-0.6	L	11:37AM	LDT	5.9	H	06:16PM	LDT	0.0	L	11:43PM	LDT	7.0	H
05/28/2009	Thu	07:09AM	LDT	-0.4	L	12:39PM	LDT	5.9	H	07:13PM	LDT	0.2	L				
05/29/2009	Fri	12:46AM	LDT	6.6	H	08:05AM	LDT	-0.2	L	01:39PM	LDT	6.0	H	08:16PM	LDT	0.6	L
05/30/2009	Sat	01:46AM	LDT	6.4	H	09:05AM	LDT	0.0	L	02:35PM	LDT	6.0	H	09:25PM	LDT	0.7	L
05/31/2009	Sun	02:44AM	LDT	6.0	H	10:04AM	LDT	0.1	L	03:31PM	LDT	6.2	H	10:33PM	LDT	0.8	L

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

June - Belleville

Date	Day	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
06/01/2009	Mon	03:42AM LDT	5.8 H	11:00AM LDT	0.1 L	04:28PM LDT	6.3 H	11:34PM LDT	0.7 L		
06/02/2009	Tue	04:42AM LDT	5.5 H	11:52AM LDT	0.2 L	05:24PM LDT	6.4 H				
06/03/2009	Wed	12:30AM LDT	0.6 L	05:42AM LDT	5.3 H	12:41PM LDT	0.2 L	06:17PM LDT	6.5 H		
06/04/2009	Thu	01:21AM LDT	0.4 L	06:39AM LDT	5.3 H	01:27PM LDT	0.4 L	07:05PM LDT	6.6 H		
06/05/2009	Fri	02:11AM LDT	0.2 L	07:30AM LDT	5.3 H	02:13PM LDT	0.5 L	07:49PM LDT	6.8 H		
06/06/2009	Sat	02:58AM LDT	0.2 L	08:16AM LDT	5.3 H	02:58PM LDT	0.6 L	08:30PM LDT	6.6 H		
06/07/2009	Sun	03:43AM LDT	0.1 L	09:00AM LDT	5.3 H	03:42PM LDT	0.7 L	09:09PM LDT	6.6 H		
06/08/2009	Mon	04:26AM LDT	0.1 L	09:43AM LDT	5.3 H	04:24PM LDT	0.7 L	09:48PM LDT	6.4 H		
06/09/2009	Tue	05:07AM LDT	0.1 L	10:27AM LDT	5.2 H	05:04PM LDT	0.8 L	10:27PM LDT	6.3 H		
06/10/2009	Wed	05:46AM LDT	0.2 L	11:12AM LDT	5.2 H	05:42PM LDT	1.1 L	11:08PM LDT	6.0 H		
06/11/2009	Thu	06:24AM LDT	0.4 L	11:58AM LDT	5.0 H	06:19PM LDT	1.2 L	11:49PM LDT	5.9 H		
06/12/2009	Fri	07:00AM LDT	0.6 L	12:42PM LDT	5.0 H	06:55PM LDT	1.4 L				
06/13/2009	Sat	12:30AM LDT	5.7 H	07:37AM LDT	0.7 L	01:22PM LDT	5.0 H	07:36PM LDT	1.5 L		
06/14/2009	Sun	01:10AM LDT	5.4 H	08:16AM LDT	0.8 L	01:59PM LDT	5.2 H	08:33PM LDT	1.7 L		
06/15/2009	Mon	01:51AM LDT	5.3 H	09:01AM LDT	1.0 L	02:36PM LDT	5.3 H	09:46PM LDT	1.7 L		
06/16/2009	Tue	02:35AM LDT	5.2 H	09:54AM LDT	1.0 L	03:16PM LDT	5.7 H	10:53PM LDT	1.4 L		
06/17/2009	Wed	03:26AM LDT	5.0 H	10:48AM LDT	0.8 L	04:04PM LDT	5.9 H	11:51PM LDT	1.2 L		
06/18/2009	Thu	04:26AM LDT	5.0 H	11:42AM LDT	0.7 L	04:58PM LDT	6.3 H				
06/19/2009	Fri	12:46AM LDT	0.7 L	05:33AM LDT	5.0 H	12:35PM LDT	0.5 L	05:57PM LDT	6.6 H		
06/20/2009	Sat	01:40AM LDT	0.4 L	06:38AM LDT	5.3 H	01:29PM LDT	0.2 L	06:54PM LDT	7.0 H		
06/21/2009	Sun	02:34AM LDT	0.0 L	07:36AM LDT	5.5 H	02:25PM LDT	0.0 L	07:49PM LDT	7.3 H		
06/22/2009	Mon	03:27AM LDT	-0.4 L	08:31AM LDT	5.8 H	03:22PM LDT	-0.1 L	08:42PM LDT	7.5 H		
06/23/2009	Tue	04:19AM LDT	-0.7 L	09:26AM LDT	6.0 H	04:17PM LDT	-0.4 L	09:36PM LDT	7.5 H		
06/24/2009	Wed	05:10AM LDT	-0.8 L	10:23AM LDT	6.2 H	05:11PM LDT	-0.4 L	10:32PM LDT	7.4 H		
06/25/2009	Thu	05:59AM LDT	-0.8 L	11:22AM LDT	6.3 H	06:04PM LDT	-0.2 L	11:32PM LDT	7.1 H		
06/26/2009	Fri	06:49AM LDT	-0.7 L	12:22PM LDT	6.3 H	06:59PM LDT	0.0 L				
06/27/2009	Sat	12:31AM LDT	6.8 H	07:40AM LDT	-0.5 L	01:18PM LDT	6.4 H	07:58PM LDT	0.4 L		
06/28/2009	Sun	01:27AM LDT	6.4 H	08:34AM LDT	-0.1 L	02:12PM LDT	6.4 H	09:02PM LDT	0.7 L		
06/29/2009	Mon	02:21AM LDT	5.9 H	09:31AM LDT	0.1 L	03:05PM LDT	6.4 H	10:08PM LDT	0.8 L		
06/30/2009	Tue	03:15AM LDT	5.5 H	10:27AM LDT	0.4 L	03:58PM LDT	6.3 H	11:10PM LDT	0.8 L		

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

July - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
07/01/2009	Wed	04:13AM LDT	5.2	H	11:21AM LDT	0.5	L	04:53PM LDT	6.3	H						
07/02/2009	Thu	12:07AM LDT	0.8	L	05:14AM LDT	4.9	H	12:11PM LDT	0.7	L	05:47PM LDT	6.3	H			
07/03/2009	Fri	12:58AM LDT	0.7	L	06:14AM LDT	4.9	H	01:00PM LDT	0.7	L	06:39PM LDT	6.3	H			
07/04/2009	Sat	01:47AM LDT	0.6	L	07:08AM LDT	4.9	H	01:47PM LDT	0.8	L	07:26PM LDT	6.4	H			
07/05/2009	Sun	02:34AM LDT	0.5	L	07:56AM LDT	5.0	H	02:33PM LDT	0.8	L	08:09PM LDT	6.4	H			
07/06/2009	Mon	03:19AM LDT	0.4	L	08:40AM LDT	5.2	H	03:18PM LDT	0.8	L	08:49PM LDT	6.4	H			
07/07/2009	Tue	04:02AM LDT	0.2	L	09:21AM LDT	5.3	H	04:01PM LDT	0.8	L	09:27PM LDT	6.4	H			
07/08/2009	Wed	04:42AM LDT	0.2	L	10:02AM LDT	5.3	H	04:41PM LDT	0.8	L	10:04PM LDT	6.3	H			
07/09/2009	Thu	05:19AM LDT	0.2	L	10:43AM LDT	5.3	H	05:20PM LDT	0.8	L	10:40PM LDT	6.2	H			
07/10/2009	Fri	05:55AM LDT	0.2	L	11:23AM LDT	5.3	H	05:56PM LDT	1.0	L	11:15PM LDT	5.9	H			
07/11/2009	Sat	06:27AM LDT	0.4	L	12:00PM LDT	5.3	H	06:31PM LDT	1.2	L	11:51PM LDT	5.8	H			
07/12/2009	Sun	06:57AM LDT	0.5	L	12:35PM LDT	5.4	H	07:08PM LDT	1.3	L						
07/13/2009	Mon	12:28AM LDT	5.5	H	07:27AM LDT	0.6	L	01:09PM LDT	5.5	H	07:53PM LDT	1.4	L			
07/14/2009	Tue	01:10AM LDT	5.3	H	08:01AM LDT	0.7	L	01:46PM LDT	5.7	H	09:00PM LDT	1.5	L			
07/15/2009	Wed	01:57AM LDT	5.2	H	08:49AM LDT	0.8	L	02:30PM LDT	5.9	H	10:16PM LDT	1.4	L			
07/16/2009	Thu	02:50AM LDT	5.0	H	09:56AM LDT	0.8	L	03:21PM LDT	6.2	H	11:23PM LDT	1.2	L			
07/17/2009	Fri	03:53AM LDT	4.9	H	11:06AM LDT	0.7	L	04:22PM LDT	6.4	H						
07/18/2009	Sat	12:22AM LDT	0.8	L	05:05AM LDT	5.0	H	12:10PM LDT	0.6	L	05:30PM LDT	6.6	H			
07/19/2009	Sun	01:19AM LDT	0.4	L	06:17AM LDT	5.3	H	01:10PM LDT	0.2	L	06:37PM LDT	7.0	H			
07/20/2009	Mon	02:14AM LDT	0.0	L	07:21AM LDT	5.7	H	02:10PM LDT	0.0	L	07:36PM LDT	7.3	H			
07/21/2009	Tue	03:08AM LDT	-0.5	L	08:17AM LDT	6.0	H	03:07PM LDT	-0.2	L	08:31PM LDT	7.5	H			
07/22/2009	Wed	04:00AM LDT	-0.7	L	09:11AM LDT	6.3	H	04:03PM LDT	-0.5	L	09:24PM LDT	7.5	H			
07/23/2009	Thu	04:49AM LDT	-1.0	L	10:05AM LDT	6.5	H	04:56PM LDT	-0.5	L	10:17PM LDT	7.4	H			
07/24/2009	Fri	05:37AM LDT	-1.0	L	11:01AM LDT	6.6	H	05:48PM LDT	-0.4	L	11:12PM LDT	7.0	H			
07/25/2009	Sat	06:23AM LDT	-0.8	L	11:56AM LDT	6.8	H	06:41PM LDT	-0.1	L						
07/26/2009	Sun	12:07AM LDT	6.6	H	07:10AM LDT	-0.5	L	12:51PM LDT	6.6	H	07:35PM LDT	0.4	L			
07/27/2009	Mon	01:02AM LDT	6.2	H	08:00AM LDT	-0.1	L	01:43PM LDT	6.5	H	08:35PM LDT	0.7	L			
07/28/2009	Tue	01:55AM LDT	5.8	H	08:54AM LDT	0.4	L	02:33PM LDT	6.4	H	09:39PM LDT	1.0	L			
07/29/2009	Wed	02:49AM LDT	5.3	H	09:51AM LDT	0.7	L	03:25PM LDT	6.2	H	10:43PM LDT	1.1	L			
07/30/2009	Thu	03:45AM LDT	4.9	H	10:49AM LDT	1.0	L	04:19PM LDT	6.0	H	11:41PM LDT	1.1	L			
07/31/2009	Fri	04:46AM LDT	4.8	H	11:43AM LDT	1.1	L	05:16PM LDT	5.9	H						

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

August - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
08/01/2009	Sat	12:33AM LDT	1.0	L	05:48AM LDT	4.8	H	12:34PM LDT	1.2	L	06:13PM LDT	6.0	H			
08/02/2009	Sun	01:22AM LDT	0.8	L	06:45AM LDT	4.9	H	01:22PM LDT	1.1	L	07:03PM LDT	6.2	H			
08/03/2009	Mon	02:08AM LDT	0.7	L	07:34AM LDT	5.2	H	02:09PM LDT	1.0	L	07:47PM LDT	6.3	H			
08/04/2009	Tue	02:52AM LDT	0.5	L	08:17AM LDT	5.3	H	02:54PM LDT	0.8	L	08:27PM LDT	6.4	H			
08/05/2009	Wed	03:33AM LDT	0.4	L	08:56AM LDT	5.4	H	03:37PM LDT	0.7	L	09:03PM LDT	6.4	H			
08/06/2009	Thu	04:12AM LDT	0.2	L	09:33AM LDT	5.5	H	04:18PM LDT	0.7	L	09:37PM LDT	6.4	H			
08/07/2009	Fri	04:48AM LDT	0.1	L	10:08AM LDT	5.7	H	04:56PM LDT	0.7	L	10:09PM LDT	6.3	H			
08/08/2009	Sat	05:22AM LDT	0.2	L	10:40AM LDT	5.7	H	05:33PM LDT	0.7	L	10:41PM LDT	6.0	H			
08/09/2009	Sun	05:52AM LDT	0.2	L	11:11AM LDT	5.8	H	06:09PM LDT	0.8	L	11:14PM LDT	5.8	H			
08/10/2009	Mon	06:20AM LDT	0.4	L	11:42AM LDT	5.8	H	06:45PM LDT	1.1	L	11:52PM LDT	5.5	H			
08/11/2009	Tue	06:48AM LDT	0.5	L	12:20PM LDT	5.9	H	07:27PM LDT	1.2	L						
08/12/2009	Wed	12:38AM LDT	5.3	H	07:22AM LDT	0.7	L	01:04PM LDT	6.0	H	08:28PM LDT	1.3	L			
08/13/2009	Thu	01:31AM LDT	5.2	H	08:09AM LDT	0.8	L	01:56PM LDT	6.2	H	09:49PM LDT	1.3	L			
08/14/2009	Fri	02:30AM LDT	5.0	H	09:21AM LDT	1.0	L	02:53PM LDT	6.3	H	11:01PM LDT	1.2	L			
08/15/2009	Sat	03:37AM LDT	4.9	H	10:47AM LDT	1.0	L	04:00PM LDT	6.4	H						
08/16/2009	Sun	12:04AM LDT	0.8	L	04:52AM LDT	5.0	H	11:57AM LDT	0.7	L	05:15PM LDT	6.5	H			
08/17/2009	Mon	01:01AM LDT	0.4	L	06:05AM LDT	5.4	H	12:59PM LDT	0.4	L	06:26PM LDT	6.9	H			
08/18/2009	Tue	01:55AM LDT	0.0	L	07:08AM LDT	5.9	H	01:57PM LDT	0.0	L	07:26PM LDT	7.3	H			
08/19/2009	Wed	02:47AM LDT	-0.5	L	08:03AM LDT	6.4	H	02:53PM LDT	-0.4	L	08:18PM LDT	7.4	H			
08/20/2009	Thu	03:37AM LDT	-0.7	L	08:54AM LDT	6.8	H	03:48PM LDT	-0.5	L	09:08PM LDT	7.4	H			
08/21/2009	Fri	04:24AM LDT	-0.8	L	09:44AM LDT	7.0	H	04:39PM LDT	-0.5	L	09:57PM LDT	7.3	H			
08/22/2009	Sat	05:10AM LDT	-0.8	L	10:34AM LDT	7.1	H	05:30PM LDT	-0.4	L	10:48PM LDT	6.9	H			
08/23/2009	Sun	05:54AM LDT	-0.6	L	11:25AM LDT	7.0	H	06:19PM LDT	-0.1	L	11:40PM LDT	6.4	H			
08/24/2009	Mon	06:38AM LDT	-0.2	L	12:17PM LDT	6.9	H	07:10PM LDT	0.4	L						
08/25/2009	Tue	12:34AM LDT	5.9	H	07:24AM LDT	0.2	L	01:08PM LDT	6.5	H	08:05PM LDT	0.7	L			
08/26/2009	Wed	01:28AM LDT	5.5	H	08:14AM LDT	0.8	L	01:59PM LDT	6.3	H	09:06PM LDT	1.1	L			
08/27/2009	Thu	02:22AM LDT	5.2	H	09:12AM LDT	1.2	L	02:50PM LDT	6.0	H	10:10PM LDT	1.3	L			
08/28/2009	Fri	03:18AM LDT	4.9	H	10:16AM LDT	1.5	L	03:45PM LDT	5.8	H	11:11PM LDT	1.3	L			
08/29/2009	Sat	04:18AM LDT	4.7	H	11:15AM LDT	1.5	L	04:43PM LDT	5.7	H						
08/30/2009	Sun	12:05AM LDT	1.2	L	05:20AM LDT	4.8	H	12:08PM LDT	1.4	L	05:42PM LDT	5.8	H			
08/31/2009	Mon	12:53AM LDT	1.1	L	06:18AM LDT	4.9	H	12:57PM LDT	1.3	L	06:35PM LDT	5.9	H			

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

September - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height
09/01/2009	Tue	01:37AM LDT	0.8	L	07:07AM LDT	5.3	H	01:43PM LDT	1.1	L	07:20PM LDT	6.2	H		
09/02/2009	Wed	02:19AM LDT	0.6	L	07:49AM LDT	5.5	H	02:27PM LDT	0.8	L	07:59PM LDT	6.3	H		
09/03/2009	Thu	02:59AM LDT	0.4	L	08:26AM LDT	5.8	H	03:10PM LDT	0.7	L	08:34PM LDT	6.4	H		
09/04/2009	Fri	03:36AM LDT	0.2	L	08:59AM LDT	6.0	H	03:52PM LDT	0.6	L	09:07PM LDT	6.3	H		
09/05/2009	Sat	04:12AM LDT	0.1	L	09:29AM LDT	6.2	H	04:32PM LDT	0.5	L	09:37PM LDT	6.3	H		
09/06/2009	Sun	04:46AM LDT	0.1	L	09:56AM LDT	6.3	H	05:10PM LDT	0.5	L	10:09PM LDT	6.0	H		
09/07/2009	Mon	05:17AM LDT	0.2	L	10:25AM LDT	6.3	H	05:48PM LDT	0.6	L	10:44PM LDT	5.8	H		
09/08/2009	Tue	05:47AM LDT	0.4	L	10:59AM LDT	6.4	H	06:27PM LDT	0.7	L	11:26PM LDT	5.5	H		
09/09/2009	Wed	06:19AM LDT	0.5	L	11:42AM LDT	6.4	H	07:13PM LDT	1.0	L					
09/10/2009	Thu	12:19AM LDT	5.3	H	06:58AM LDT	0.7	L	12:34PM LDT	6.3	H	08:13PM LDT	1.2	L		
09/11/2009	Fri	01:19AM LDT	5.2	H	07:49AM LDT	1.0	L	01:34PM LDT	6.3	H	09:31PM LDT	1.2	L		
09/12/2009	Sat	02:24AM LDT	5.0	H	09:12AM LDT	1.2	L	02:40PM LDT	6.3	H	10:44PM LDT	1.1	L		
09/13/2009	Sun	03:33AM LDT	5.2	H	10:39AM LDT	1.1	L	03:51PM LDT	6.3	H	11:46PM LDT	0.7	L		
09/14/2009	Mon	04:46AM LDT	5.3	H	11:48AM LDT	0.7	L	05:06PM LDT	6.4	H					
09/15/2009	Tue	12:42AM LDT	0.2	L	05:55AM LDT	5.8	H	12:48PM LDT	0.4	L	06:14PM LDT	6.8	H		
09/16/2009	Wed	01:33AM LDT	-0.1	L	06:55AM LDT	6.3	H	01:45PM LDT	0.0	L	07:12PM LDT	7.0	H		
09/17/2009	Thu	02:23AM LDT	-0.5	L	07:46AM LDT	6.8	H	02:39PM LDT	-0.2	L	08:02PM LDT	7.1	H		
09/18/2009	Fri	03:11AM LDT	-0.7	L	08:34AM LDT	7.1	H	03:31PM LDT	-0.5	L	08:49PM LDT	7.0	H		
09/19/2009	Sat	03:57AM LDT	-0.7	L	09:19AM LDT	7.4	H	04:21PM LDT	-0.5	L	09:35PM LDT	6.9	H		
09/20/2009	Sun	04:41AM LDT	-0.6	L	10:05AM LDT	7.3	H	05:09PM LDT	-0.4	L	10:22PM LDT	6.5	H		
09/21/2009	Mon	05:24AM LDT	-0.4	L	10:51AM LDT	7.1	H	05:56PM LDT	0.0	L	11:13PM LDT	6.0	H		
09/22/2009	Tue	06:06AM LDT	0.1	L	11:40AM LDT	6.8	H	06:43PM LDT	0.4	L					
09/23/2009	Wed	12:06AM LDT	5.7	H	06:48AM LDT	0.6	L	12:31PM LDT	6.4	H	07:33PM LDT	0.7	L		
09/24/2009	Thu	01:01AM LDT	5.3	H	07:35AM LDT	1.2	L	01:22PM LDT	6.0	H	08:30PM LDT	1.2	L		
09/25/2009	Fri	01:56AM LDT	5.0	H	08:31AM LDT	1.5	L	02:15PM LDT	5.8	H	09:33PM LDT	1.4	L		
09/26/2009	Sat	02:51AM LDT	4.8	H	09:38AM LDT	1.8	L	03:09PM LDT	5.5	H	10:35PM LDT	1.4	L		
09/27/2009	Sun	03:49AM LDT	4.8	H	10:42AM LDT	1.8	L	04:06PM LDT	5.5	H	11:30PM LDT	1.3	L		
09/28/2009	Mon	04:47AM LDT	4.8	H	11:39AM LDT	1.7	L	05:04PM LDT	5.5	H					
09/29/2009	Tue	12:18AM LDT	1.1	L	05:44AM LDT	5.0	H	12:28PM LDT	1.4	L	05:58PM LDT	5.7	H		
09/30/2009	Wed	01:00AM LDT	0.8	L	06:33AM LDT	5.4	H	01:14PM LDT	1.2	L	06:45PM LDT	5.9	H		

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

October - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height
10/01/2009	Thu	01:41AM LDT	0.6	L	07:14AM LDT	5.7	H	01:59PM LDT	0.8	L	07:25PM LDT	6.0	H		
10/02/2009	Fri	02:19AM LDT	0.4	L	07:50AM LDT	6.0	H	02:42PM LDT	0.6	L	08:01PM LDT	6.2	H		
10/03/2009	Sat	02:57AM LDT	0.2	L	08:21AM LDT	6.4	H	03:25PM LDT	0.4	L	08:35PM LDT	6.2	H		
10/04/2009	Sun	03:34AM LDT	0.1	L	08:50AM LDT	6.5	H	04:07PM LDT	0.2	L	09:08PM LDT	6.0	H		
10/05/2009	Mon	04:10AM LDT	0.1	L	09:19AM LDT	6.8	H	04:49PM LDT	0.2	L	09:43PM LDT	5.9	H		
10/06/2009	Tue	04:46AM LDT	0.1	L	09:51AM LDT	6.8	H	05:30PM LDT	0.2	L	10:23PM LDT	5.7	H		
10/07/2009	Wed	05:22AM LDT	0.2	L	10:31AM LDT	6.8	H	06:14PM LDT	0.4	L	11:11PM LDT	5.5	H		
10/08/2009	Thu	06:02AM LDT	0.5	L	11:19AM LDT	6.6	H	07:03PM LDT	0.6	L					
10/09/2009	Fri	12:11AM LDT	5.3	H	06:47AM LDT	0.7	L	12:19PM LDT	6.4	H	08:04PM LDT	0.8	L		
10/10/2009	Sat	01:17AM LDT	5.2	H	07:48AM LDT	1.0	L	01:26PM LDT	6.3	H	09:16PM LDT	0.8	L		
10/11/2009	Sun	02:24AM LDT	5.2	H	09:11AM LDT	1.1	L	02:35PM LDT	6.2	H	10:25PM LDT	0.7	L		
10/12/2009	Mon	03:30AM LDT	5.3	H	10:31AM LDT	1.0	L	03:44PM LDT	6.2	H	11:26PM LDT	0.5	L		
10/13/2009	Tue	04:37AM LDT	5.7	H	11:37AM LDT	0.7	L	04:54PM LDT	6.3	H					
10/14/2009	Wed	12:20AM LDT	0.1	L	05:41AM LDT	6.0	H	12:36PM LDT	0.4	L	05:58PM LDT	6.4	H		
10/15/2009	Thu	01:10AM LDT	-0.2	L	06:37AM LDT	6.5	H	01:31PM LDT	0.0	L	06:54PM LDT	6.5	H		
10/16/2009	Fri	01:57AM LDT	-0.5	L	07:27AM LDT	7.0	H	02:23PM LDT	-0.2	L	07:44PM LDT	6.5	H		
10/17/2009	Sat	02:44AM LDT	-0.5	L	08:12AM LDT	7.3	H	03:14PM LDT	-0.4	L	08:30PM LDT	6.5	H		
10/18/2009	Sun	03:29AM LDT	-0.5	L	08:55AM LDT	7.4	H	04:02PM LDT	-0.4	L	09:14PM LDT	6.3	H		
10/19/2009	Mon	04:13AM LDT	-0.2	L	09:37AM LDT	7.3	H	04:49PM LDT	-0.2	L	09:59PM LDT	6.0	H		
10/20/2009	Tue	04:55AM LDT	0.0	L	10:20AM LDT	7.0	H	05:33PM LDT	0.0	L	10:47PM LDT	5.7	H		
10/21/2009	Wed	05:36AM LDT	0.4	L	11:05AM LDT	6.6	H	06:18PM LDT	0.2	L	11:39PM LDT	5.3	H		
10/22/2009	Thu	06:17AM LDT	0.8	L	11:54AM LDT	6.2	H	07:03PM LDT	0.6	L					
10/23/2009	Fri	12:34AM LDT	5.0	H	06:59AM LDT	1.2	L	12:46PM LDT	5.9	H	07:54PM LDT	1.0	L		
10/24/2009	Sat	01:28AM LDT	4.8	H	07:49AM LDT	1.5	L	01:38PM LDT	5.5	H	08:51PM LDT	1.2	L		
10/25/2009	Sun	02:21AM LDT	4.7	H	08:52AM LDT	1.8	L	02:30PM LDT	5.4	H	09:51PM LDT	1.3	L		
10/26/2009	Mon	03:14AM LDT	4.7	H	10:02AM LDT	1.9	L	03:22PM LDT	5.3	H	10:47PM LDT	1.2	L		
10/27/2009	Tue	04:07AM LDT	4.8	H	11:02AM LDT	1.7	L	04:16PM LDT	5.3	H	11:35PM LDT	1.1	L		
10/28/2009	Wed	05:00AM LDT	5.0	H	11:55AM LDT	1.4	L	05:10PM LDT	5.3	H					
10/29/2009	Thu	12:18AM LDT	0.8	L	05:49AM LDT	5.3	H	12:43PM LDT	1.1	L	06:00PM LDT	5.4	H		
10/30/2009	Fri	12:58AM LDT	0.6	L	06:31AM LDT	5.7	H	01:28PM LDT	0.8	L	06:45PM LDT	5.5	H		
10/31/2009	Sat	01:37AM LDT	0.4	L	07:08AM LDT	6.2	H	02:13PM LDT	0.5	L	07:26PM LDT	5.7	H		

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

November - Belleville

Date	Day	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
11/01/2009	Sun	01:17AM LST	0.1	L	06:42AM LST	6.5	H	01:59PM LST	0.2	L	07:04PM LST	5.8	H			
11/02/2009	Mon	01:57AM LST	0.0	L	07:15AM LST	6.8	H	02:44PM LST	0.0	L	07:42PM LST	5.8	H			
11/03/2009	Tue	02:39AM LST	0.0	L	07:50AM LST	6.9	H	03:29PM LST	-0.1	L	08:23PM LST	5.7	H			
11/04/2009	Wed	03:22AM LST	-0.1	L	08:30AM LST	7.0	H	04:15PM LST	-0.2	L	09:09PM LST	5.5	H			
11/05/2009	Thu	04:06AM LST	0.0	L	09:15AM LST	6.9	H	05:02PM LST	-0.1	L	10:04PM LST	5.4	H			
11/06/2009	Fri	04:53AM LST	0.1	L	10:10AM LST	6.6	H	05:54PM LST	0.0	L	11:08PM LST	5.3	H			
11/07/2009	Sat	05:45AM LST	0.4	L	11:15AM LST	6.5	H	06:51PM LST	0.2	L						
11/08/2009	Sun	12:15AM LST	5.3	H	06:48AM LST	0.6	L	12:22PM LST	6.3	H	07:56PM LST	0.4	L			
11/09/2009	Mon	01:18AM LST	5.4	H	08:03AM LST	0.8	L	01:27PM LST	6.0	H	09:01PM LST	0.2	L			
11/10/2009	Tue	02:19AM LST	5.5	H	09:17AM LST	0.7	L	02:31PM LST	5.9	H	10:01PM LST	0.1	L			
11/11/2009	Wed	03:21AM LST	5.8	H	10:23AM LST	0.5	L	03:35PM LST	5.8	H	10:55PM LST	-0.1	L			
11/12/2009	Thu	04:21AM LST	6.2	H	11:21AM LST	0.2	L	04:37PM LST	5.8	H	11:44PM LST	-0.2	L			
11/13/2009	Fri	05:17AM LST	6.5	H	12:15PM LST	0.0	L	05:34PM LST	5.8	H						
11/14/2009	Sat	12:31AM LST	-0.4	L	06:06AM LST	6.8	H	01:06PM LST	-0.2	L	06:25PM LST	5.8	H			
11/15/2009	Sun	01:18AM LST	-0.4	L	06:51AM LST	6.9	H	01:56PM LST	-0.4	L	07:12PM LST	5.8	H			
11/16/2009	Mon	02:03AM LST	-0.2	L	07:33AM LST	7.0	H	02:43PM LST	-0.4	L	07:56PM LST	5.7	H			
11/17/2009	Tue	02:47AM LST	-0.1	L	08:14AM LST	6.8	H	03:28PM LST	-0.2	L	08:40PM LST	5.4	H			
11/18/2009	Wed	03:30AM LST	0.1	L	08:54AM LST	6.6	H	04:12PM LST	-0.1	L	09:26PM LST	5.3	H			
11/19/2009	Thu	04:11AM LST	0.4	L	09:37AM LST	6.3	H	04:54PM LST	0.1	L	10:14PM LST	5.0	H			
11/20/2009	Fri	04:51AM LST	0.7	L	10:22AM LST	6.0	H	05:36PM LST	0.4	L	11:05PM LST	4.8	H			
11/21/2009	Sat	05:30AM LST	1.0	L	11:11AM LST	5.7	H	06:19PM LST	0.6	L	11:57PM LST	4.7	H			
11/22/2009	Sun	06:12AM LST	1.2	L	12:00PM LST	5.4	H	07:06PM LST	0.8	L						
11/23/2009	Mon	12:46AM LST	4.6	H	07:02AM LST	1.5	L	12:47PM LST	5.2	H	07:58PM LST	1.0	L			
11/24/2009	Tue	01:32AM LST	4.6	H	08:09AM LST	1.7	L	01:33PM LST	5.0	H	08:52PM LST	1.0	L			
11/25/2009	Wed	02:18AM LST	4.7	H	09:17AM LST	1.5	L	02:20PM LST	4.9	H	09:43PM LST	0.8	L			
11/26/2009	Thu	03:04AM LST	4.9	H	10:16AM LST	1.3	L	03:10PM LST	4.8	H	10:29PM LST	0.7	L			
11/27/2009	Fri	03:51AM LST	5.2	H	11:08AM LST	1.1	L	04:05PM LST	4.8	H	11:12PM LST	0.5	L			
11/28/2009	Sat	04:38AM LST	5.5	H	11:57AM LST	0.7	L	04:59PM LST	4.9	H	11:55PM LST	0.2	L			
11/29/2009	Sun	05:22AM LST	5.9	H	12:45PM LST	0.4	L	05:50PM LST	5.0	H						
11/30/2009	Mon	12:39AM LST	0.0	L	06:05AM LST	6.4	H	01:34PM LST	0.0	L	06:36PM LST	5.3	H			

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

December - Belleville

Date	Day	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
12/01/2009	Tue	01:26AM LST	-0.1 L	06:48AM LST	6.6 H	02:23PM LST	-0.4 L	07:22PM LST	5.4 H		
12/02/2009	Wed	02:15AM LST	-0.4 L	07:31AM LST	6.9 H	03:11PM LST	-0.6 L	08:09PM LST	5.5 H		
12/03/2009	Thu	03:04AM LST	-0.5 L	08:18AM LST	7.0 H	04:00PM LST	-0.7 L	09:00PM LST	5.5 H		
12/04/2009	Fri	03:55AM LST	-0.5 L	09:09AM LST	6.9 H	04:49PM LST	-0.7 L	09:57PM LST	5.5 H		
12/05/2009	Sat	04:46AM LST	-0.4 L	10:06AM LST	6.8 H	05:39PM LST	-0.6 L	11:00PM LST	5.5 H		
12/06/2009	Sun	05:39AM LST	-0.2 L	11:09AM LST	6.4 H	06:33PM LST	-0.5 L				
12/07/2009	Mon	12:02AM LST	5.5 H	06:39AM LST	0.1 L	12:12PM LST	6.2 H	07:31PM LST	-0.4 L		
12/08/2009	Tue	01:02AM LST	5.7 H	07:47AM LST	0.4 L	01:11PM LST	5.9 H	08:32PM LST	-0.2 L		
12/09/2009	Wed	01:59AM LST	5.7 H	08:58AM LST	0.5 L	02:10PM LST	5.5 H	09:31PM LST	-0.1 L		
12/10/2009	Thu	02:57AM LST	5.8 H	10:04AM LST	0.4 L	03:11PM LST	5.3 H	10:26PM LST	-0.2 L		
12/11/2009	Fri	03:55AM LST	6.0 H	11:03AM LST	0.2 L	04:13PM LST	5.0 H	11:18PM LST	-0.2 L		
12/12/2009	Sat	04:52AM LST	6.2 H	11:57AM LST	0.0 L	05:14PM LST	5.0 H				
12/13/2009	Sun	12:06AM LST	-0.1 L	05:45AM LST	6.3 H	12:49PM LST	-0.1 L	06:08PM LST	5.0 H		
12/14/2009	Mon	12:54AM LST	-0.1 L	06:32AM LST	6.4 H	01:37PM LST	-0.2 L	06:56PM LST	5.0 H		
12/15/2009	Tue	01:40AM LST	0.0 L	07:15AM LST	6.4 H	02:24PM LST	-0.4 L	07:41PM LST	5.0 H		
12/16/2009	Wed	02:26AM LST	0.0 L	07:56AM LST	6.4 H	03:08PM LST	-0.4 L	08:23PM LST	5.0 H		
12/17/2009	Thu	03:09AM LST	0.1 L	08:35AM LST	6.3 H	03:50PM LST	-0.2 L	09:06PM LST	4.9 H		
12/18/2009	Fri	03:50AM LST	0.2 L	09:15AM LST	6.0 H	04:30PM LST	-0.2 L	09:50PM LST	4.9 H		
12/19/2009	Sat	04:29AM LST	0.4 L	09:56AM LST	5.8 H	05:08PM LST	0.0 L	10:35PM LST	4.8 H		
12/20/2009	Sun	05:06AM LST	0.6 L	10:38AM LST	5.5 H	05:45PM LST	0.1 L	11:20PM LST	4.7 H		
12/21/2009	Mon	05:42AM LST	0.8 L	11:19AM LST	5.3 H	06:21PM LST	0.4 L				
12/22/2009	Tue	12:02AM LST	4.6 H	06:20AM LST	1.1 L	12:00PM LST	5.0 H	06:59PM LST	0.5 L		
12/23/2009	Wed	12:42AM LST	4.7 H	07:09AM LST	1.2 L	12:40PM LST	4.8 H	07:41PM LST	0.6 L		
12/24/2009	Thu	01:19AM LST	4.7 H	08:19AM LST	1.3 L	01:22PM LST	4.7 H	08:33PM LST	0.7 L		
12/25/2009	Fri	01:59AM LST	4.9 H	09:30AM LST	1.2 L	02:10PM LST	4.4 H	09:29PM LST	0.6 L		
12/26/2009	Sat	02:44AM LST	5.0 H	10:31AM LST	1.0 L	03:07PM LST	4.4 H	10:24PM LST	0.5 L		
12/27/2009	Sun	03:37AM LST	5.4 H	11:26AM LST	0.6 L	04:12PM LST	4.4 H	11:16PM LST	0.2 L		
12/28/2009	Mon	04:36AM LST	5.8 H	12:18PM LST	0.2 L	05:16PM LST	4.7 H				
12/29/2009	Tue	12:09AM LST	0.0 L	05:34AM LST	6.2 H	01:11PM LST	-0.2 L	06:14PM LST	4.9 H		
12/30/2009	Wed	01:03AM LST	-0.4 L	06:28AM LST	6.5 H	02:03PM LST	-0.6 L	07:06PM LST	5.3 H		
12/31/2009	Thu	01:57AM LST	-0.6 L	07:19AM LST	6.8 H	02:53PM LST	-1.0 L	07:57PM LST	5.5 H		

All times are listed in Local Standard Time(LST) or, Local Daylight Time (LDT) (when applicable). All heights are in feet referenced to Mean Lower Low Water (MLLW).

APPENDIX 10
NJDEP SOIL REMEDIATION STANDARDS

APPENDIX 1
SOIL REMEDIATION STANDARDS TABLES

Table 1A – Residential Direct Contact Health Based Criteria and Soil Remediation Standards (mg/kg)

Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Residential Direct Contact Soil Remediation Standard
Acenaphthene	83-32-9	3,400	NA	0.2	3,400
Acenaphthylene	208-96-8	NA	NA	0.2	NA
Acetone (2-Propanone)	67-64-1	70,000	NA	0.01	70,000
Acetophenone	98-86-2	6,100	2	0.2	2
Acrolein	107-02-8	39	0.5	0.5	0.5
Acrylonitrile	107-13-1	1	0.9	0.5	0.9
Aldrin	309-00-2	0.04	5	0.002	0.04
Aluminum	7429-90-5	78,000	NA	20	78,000
Anthracene	120-12-7	17,000	380,000	0.2	17,000
Antimony	7440-36-0	31	360,000	6	31
Arsenic	7440-38-2	0.4	980	1	19*
Atrazine	1912-24-9	210	NA	0.2	210
Barium	7440-39-3	16,000	910,000	20	16,000
Benzaldehyde	100-52-7	6,100	NA	0.2	6100
Benzene	71-43-2	3	2	0.005	2
Benzidine	92-87-5	0.002	0.004	0.7	0.7
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	0.6	38,000	0.2	0.6
Benzo(a)pyrene	50-32-8	0.06	3,800	0.2	0.2
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	0.6	38,000	0.2	0.6
Benzo(ghi)perylene	191-24-2	NA	380,000	0.2	380,000
Benzo(k)fluoranthene	207-08-9	6	38,000	0.2	6
Beryllium	7440-41-7	16	1,800	0.5	16
1,1'-Biphenyl	92-52-4	3,100	NA	0.2	3,100
Bis(2-chloroethyl)ether	111-44-4	0.4	0.6	0.2	0.4
Bis(2-chloroisopropyl)ether	108-60-1	2,400	23	0.2	23
Bis(2-ethylhexyl) phthalate	117-81-7	35	NA	0.2	35
Bromodichloromethane (Dichlorobromomethane)	75-27-4	10	1	0.005	1
Bromoform	75-25-2	81	98	0.005	81
Bromomethane (Methyl bromide)	74-83-9	110	25	0.005	25
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	3,100	NA	0.01	3,100
Butyl benzyl phthalate	85-68-7	1,200	NA	0.2	1,200
Cadmium	7440-43-9	78	1,000	0.5	78
Caprolactam	105-60-2	31,000	NA	0.2	31,000

Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Residential Direct Contact Soil Remediation Standard
Carbazole	86-74-8	24	740,000	0.2	24
Carbon disulfide	75-15-0	7,800	NA	0.5	7,800
Carbon tetrachloride	56-23-5	7	0.6	0.005	0.6
Chlordane (alpha and gamma)	57-74-9	0.2	42,000	0.002	0.2
Chlorobenzene	108-90-7	510	NA	0.005	510
Chloroethane (Ethyl chloride)	75-00-3	220	NA	0.005	220
Chloroform	67-66-3	780	0.6	0.005	0.6
Chloromethane (Methyl chloride)	74-87-3	NA	4	0.005	4
2-Chlorophenol (o-Chlorophenol)	95-57-8	310	910	0.2	310
Chrysene	218-01-9	62	380,000	0.2	62
Cobalt	7440-48-4	1,600	9,100	5	1,600
Copper	7440-50-8	3,100	NA	3	3,100
Cyanide	57-12-5	1,600	NA	3	1,600
4,4'-DDD	72-54-8	3	61,000	0.003	3
4,4'-DDE	72-55-9	2	670	0.003	2
4,4'-DDT	50-29-3	2	44,000	0.003	2
Dibenz(a,h)anthracene	53-70-3	0.06	3,500	0.2	0.2
Dibromochloromethane (Chlorodibromomethane)	124-48-1	8	3	0.005	3
1,2-Dibromo-3-chloropropane	96-12-8	0.3	0.08	0.005	0.08
1,2-Dibromoethane	106-93-4	0.008	0.1	0.005	0.008
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	5,300	NA	0.005	5,300
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	5,300	NA	0.005	5,300
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	610	5	0.005	5
3,3'-Dichlorobenzidine	91-94-1	1	3	0.2	1
Dichlorodifluoromethane	75-71-8	16,000	490	0.005	490
1,1-Dichloroethane	75-34-3	510	8	0.005	8
1,2-Dichloroethane	107-06-2	5	0.9	0.005	0.9
1,1-Dichloroethene	75-35-4	11	61	0.005	11
1,2-Dichloroethene (cis) (c-1,2-Dichloroethylene)	156-59-2	780	230	0.005	230
1,2-Dichloroethene (trans) (t-1,2-Dichloroethylene)	156-60-5	1,300	300	0.005	300
2,4-Dichlorophenol	120-83-2	180	NA	0.2	180
1,2-Dichloropropane	78-87-5	9	2	0.005	2
1,3-Dichloropropene (cis and trans)	542-75-6	6	2	0.005	2
Dieldrin	60-57-1	0.04	1	0.003	0.04
Diethyl phthalate	84-66-2	49,000	NA	0.2	49,000
2,4-Dimethyl phenol	105-67-9	1,200	NA	0.2	1,200
Di-n-butyl phthalate	84-74-2	6,100	NA	0.2	6,100
4,6-Dinitro-2-methylphenol (4,6-	534-52-1	6	730,000	0.3	6

Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Residential Direct Contact Soil Remediation Standard
Dinitro-o-cresol)					
2,4-Dinitrophenol	51-28-5	120	NA	0.3	120
2,4-Dinitrotoluene	121-14-2	0.7	6	0.2	0.7
2,6-Dinitrotoluene	606-20-2	0.7	2	0.2	0.7
2,4-Dinitrotoluene/2,6-Dinitrotoluene (mixture)	25321-14-6	0.7	NA	0.2	0.7
Di-n-octyl phthalate	117-84-0	2,400	NA	0.2	2,400
1,2-Diphenylhydrazine	122-66-7	0.6	5	0.7	0.7
Endosulfan I and Endosulfan II (alpha and beta)	115-29-7	470	NA	0.003	470
Endosulfan sulfate	1031-07-8	470	NA	0.003	470
Endrin	72-20-8	23	NA	0.003	23
Ethyl benzene	100-41-4	7,800	NA	0.005	7,800
Fluoranthene	206-44-0	2,300	NA	0.2	2,300
Fluorene	86-73-7	2,300	NA	0.2	2,300
alpha-HCH (alpha-BHC)	319-84-6	0.1	0.7	0.002	0.1
beta-HCH (beta-BHC)	319-85-7	0.4	8,000	0.002	0.4
Heptachlor	76-44-8	0.1	6	0.002	0.1
Heptachlor epoxide	1024-57-3	0.07	5	0.002	0.07
Hexachlorobenzene	118-74-1	0.3	1	0.2	0.3
Hexachloro-1,3-butadiene	87-68-3	6	12	0.2	6
Hexachlorocyclopentadiene	77-47-4	370	45	0.2	45
Hexachloroethane	67-72-1	35	83	0.2	35
Indeno(1,2,3-cd)pyrene	193-39-5	0.6	38,000	0.2	0.6
Isophorone	78-59-1	510	NA	0.2	510
Lead	7439-92-1	400	44,000	1	400
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	0.4	3	0.002	0.4
Manganese	7439-96-5	11,000	91,000	2	11,000
Mercury	7439-97-6	23	27	0.1	23
Methoxychlor	72-43-5	390	NA	0.02	390
Methyl acetate	79-20-9	78,000	NA	0.005	78,000
Methylene chloride (Dichloromethane)	75-09-2	46	34	0.005	34
2-Methylnaphthalene	91-57-6	230	NA	0.17	230
2-Methylphenol (o-Creosol)	95-48-7	310	NA	0.2	310
4-Methylphenol (p-Creosol)	106-44-5	31	NA	0.2	31
Methyl tert-butyl ether (MTBE)	1634-04-4	780	110	0.005	110
Naphthalene	91-20-3	2,400	6	0.2	6
Nickel (Soluble salts)	7440-02-0	1,600	360,000	4	1,600
2-Nitroaniline	88-74-4	NA	39	0.3	39
Nitrobenzene	98-95-3	31	160	0.2	31
N-Nitrosodimethylamine	62-75-9	0.01	0.02	0.7	0.7
N-Nitrosodi-n-propylamine	621-64-7	0.07	0.2	0.2	0.2

Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Residential Direct Contact Soil Remediation Standard
N-Nitrosodiphenylamine	86-30-6	99	NA	0.2	99
Pentachlorophenol	87-86-5	3	590	0.3	3
Phenanthrene	85-01-8	NA	NA	0.2	NA
Phenol	108-95-2	18,000	NA	0.2	18,000
Polychlorinated biphenyls (PCBs)	1336-36-3	0.2	20	0.03	0.2
Pyrene	129-00-0	1,700	NA	0.2	1,700
Selenium	7782-49-2	390	NA	4	390
Silver	7440-22-4	390	NA	1	390
Styrene	100-42-5	16,000	90	0.005	90
Tertiary butyl alcohol (TBA)	75-65-0	1,400	4,800	0.1	1,400
1,1,2,2-Tetrachloroethane	79-34-5	10	1	0.005	1
Tetrachloroethene (PCE) (Tetrachloroethylene)	127-18-4	8	2	0.005	2
Thallium	7440-28-0	5	360,000	3	5
Toluene	108-88-3	6,300	NA	0.005	6,300
Toxaphene	8001-35-2	0.6	70	0.2	0.6
1,2,4-Trichlorobenzene	120-82-1	73	NA	0.005	73
1,1,1-Trichloroethane	71-55-6	290	NA	0.005	290
1,1,2-Trichloroethane	79-00-5	31	2	0.005	2
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	21	7	0.005	7
Trichlorofluoromethane	75-69-4	23,000	NA	0.005	23,000
2,4,5-Trichlorophenol	95-95-4	6,100	NA	0.2	6,100
2,4,6-Trichlorophenol	88-06-2	19	340	0.2	19
Vanadium	7440-62-2	78	NA	5	78
Vinyl chloride	75-01-4	2	0.7	0.005	0.7
Xylenes	1330-20-7	12,000	NA	0.005	12,000
Zinc	7440-66-6	23,000	NA	6	23,000

NA = Standard not available

* The direct contact standard for arsenic is based on natural background

Table 1B – Non-Residential Direct Contact Health Based Criteria and Soil Remediation Standards (mg/kg)

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Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Non-Residential Direct Contact Soil Remediation Standard
Acenaphthene	83-32-9	37,000	300,000	0.2	37,000
Acenaphthylene	208-96-8	NA	300,000	0.2	300,000
Acetone (2-Propanone)	67-64-1	NA	NA	0.01	NA
Acetophenone	98-86-2	68,000	5	0.2	5
Acrolein	107-02-8	570	1	0.5	1
Acrylonitrile	107-13-1	6	3	0.5	3
Aldrin	309-00-2	0.2	14	0.002	0.2
Aluminum	7429-90-5	NA	NA	20	NA
Anthracene	120-12-7	180,000	30,000	0.2	30,000
Antimony	7440-36-0	450	23,000	6	450
Arsenic	7440-38-2	2	76	1	19*
Atrazine	1912-24-9	2,400	NA	0.2	2,400
Barium	7440-39-3	230,000	59,000	20	59,000
Benzaldehyde	100-52-7	68,000	NA	0.2	68,000
Benzene	71-43-2	14	5	0.005	5
Benzidine	92-87-5	0.008	0.01	0.7	0.7
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	2	3,000	0.2	2
Benzo(a)pyrene	50-32-8	0.2	300	0.2	0.2
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	2	3,000	0.2	2
Benzo(ghi)perylene	191-24-2	NA	30,000	0.2	30,000
Benzo(k)fluoranthene	207-08-9	23	3,000	0.2	23
Beryllium	7440-41-7	230	140	0.5	140
1,1'-Biphenyl	92-52-4	34,000	NA	0.2	34,000
Bis(2-chloroethyl)ether	111-44-4	2	2	0.2	2
Bis(2-chloroisopropyl)ether	108-60-1	27,000	67	0.2	67
Bis(2-ethylhexyl) phthalate	117-81-7	140	140,000	0.2	140
Bromodichloromethane (Dichlorobromomethane)	75-27-4	51	3	0.005	3
Bromoform	75-25-2	400	280	0.005	280

Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Non-Residential Direct Contact Soil Remediation Standard
Bromomethane (Methyl bromide)	74-83-9	1,600	59	0.005	59
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	44,000	NA	0.01	44,000
Butyl benzyl phthalate	85-68-7	14,000	NA	0.2	14,000
Cadmium	7440-43-9	1,100	78	0.5	78
Caprolactam	105-60-2	340,000	NA	0.2	340,000
Carbazole	86-74-8	96	58,000	0.2	96
Carbon disulfide	75-15-0	110,000	NA	0.5	110,000
Carbon tetrachloride	56-23-5	35	2	0.005	2
Chlordane (alpha and gamma)	57-74-9	1	3,300	0.002	1
Chlorobenzene	108-90-7	7,400	NA	0.005	7,400
Chloroethane (Ethyl chloride)	75-00-3	1,100	NA	0.005	1,100
Chloroform	67-66-3	11,000	2	0.005	2
Chloromethane (Methyl chloride)	74-87-3	NA	12	0.005	12
2-Chlorophenol (o-Chlorophenol)	95-57-8	3,400	2,200	0.2	2,200
Chrysene	218-01-9	230	30,000	0.2	230
Cobalt	7440-48-4	23,000	590	5	590
Copper	7440-50-8	45,000	280,000	3	45,000
Cyanide	57-12-5	23,000	NA	3	23,000
4,4'-DDD	72-54-8	13	4,800	0.003	13
4,4'-DDE	72-55-9	9	3,400	0.003	9
4,4'-DDT	50-29-3	8	3,400	0.003	8
Dibenz(a,h)anthracene	53-70-3	0.2	270	0.2	0.2
Dibromochloromethane (Chlorodibromomethane)	124-48-1	38	8	0.005	8
1,2-Dibromo-3-chloropropane	96-12-8	1	0.2	0.005	0.2
1,2-Dibromoethane	106-93-4	0.04	0.3	0.005	0.04
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	59,000	NA	0.005	59,000

Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Non-Residential Direct Contact Soil Remediation Standard
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	59,000	NA	0.005	59,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	6,800	13	0.005	13
3,3'-Dichlorobenzidine	91-94-1	4	960	0.2	4
Dichlorodifluoromethane	75-71-8	230,000	NA	0.005	230,000
1,1-Dichloroethane	75-34-3	7,400	24	0.005	24
1,2-Dichloroethane	107-06-2	26	3	0.005	3
1,1-Dichloroethene	75-35-4	160	150	0.005	150
1,2-Dichloroethene (cis) (c-1,2-Dichloroethylene)	156-59-2	11,000	560	0.005	560
1,2-Dichloroethene (trans) (t-1,2-Dichloroethylene)	156-60-5	19,000	720	0.005	720
2,4-Dichlorophenol	120-83-2	2,100	NA	0.2	2,100
1,2-Dichloropropane	78-87-5	47	5	0.005	5
1,3-Dichloropropene (cis and trans)	542-75-6	32	7	0.005	7
Dieldrin	60-57-1	0.2	3	0.003	0.2
Diethyl phthalate	84-66-2	550,000	NA	0.2	550,000
2,4-Dimethyl phenol	105-67-9	14,000	NA	0.2	14,000
Di-n-butyl phthalate	84-74-2	68,000	NA	0.2	68,000
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	68	47,000	0.3	68
2,4-Dinitrophenol	51-28-5	1,400	820,000	0.3	1,400
2,4-Dinitrotoluene	121-14-2	3	16	0.2	3
2,6-Dinitrotoluene	606-20-2	3	7	0.2	3
2,4-Dinitrotoluene/2,6-Dinitrotoluene (mixture)	25321-14-6	3	NA	0.2	3
Di-n-octyl phthalate	117-84-0	27,000	NA	0.2	27,000
1,2-Diphenylhydrazine	122-66-7	2	13	0.7	2
Endosulfan I and Endosulfan II (alpha and beta)	115-29-7	6,800	NA	0.003	6,800
Endosulfan sulfate	1031-07-8	6,800	NA	0.003	6,800
Endrin	72-20-8	340	120,000	0.003	340

Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Non-Residential Direct Contact Soil Remediation Standard
Ethyl benzene	100-41-4	110,000	NA	0.005	110,000
Fluoranthene	206-44-0	24,000	300,000	0.2	24,000
Fluorene	86-73-7	24,000	300,000	0.2	24,000
alpha-HCH (alpha-BHC)	319-84-6	0.5	2	0.002	0.5
beta-HCH (beta-BHC)	319-85-7	2	620	0.002	2
Heptachlor	76-44-8	0.7	18	0.002	0.7
Heptachlor epoxide	1024-57-3	0.3	13	0.002	0.3
Hexachlorobenzene	118-74-1	1	4	0.2	1
Hexachloro-1,3-butadiene	87-68-3	25	35	0.2	25
Hexachlorocyclopentadiene	77-47-4	4,100	110	0.2	110
Hexachloroethane	67-72-1	140	82,000	0.2	140
Indeno(1,2,3-cd)pyrene	193-39-5	2	3,000	0.2	2
Isophorone	78-59-1	2,000	NA	0.2	2,000
Lead	7439-92-1	800	12,000	1	800
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	2	10	0.002	2
Manganese	7439-96-5	160,000	5,900	2	5,900
Mercury	7439-97-6	340	65	0.1	65
Methoxychlor	72-43-5	5,700	NA	0.02	5,700
Methyl acetate	79-20-9	NA	NA	0.005	NA
Methylene chloride (Dichloromethane)	75-09-2	230	97	0.005	97
2-Methylnaphthalene	91-57-6	2400	300,000	0.17	2400
2-Methylphenol (o-Creosol)	95-48-7	3,400	NA	0.2	3,400
4-Methylphenol (p-Creosol)	106-44-5	340	NA	0.2	340
Methyl tert-butyl ether (MTBE)	1634-04-4	11,000	320	0.005	320
Naphthalene	91-20-3	25,000	17	0.2	17
Nickel (Soluble salts)	7440-02-0	23,000	23,000	4	23,000
2-Nitroaniline	88-74-4	NA	23,000	0.3	23,000
Nitrobenzene	98-95-3	340	390	0.2	340
N-Nitrosodimethylamine	62-75-9	0.06	0.05	0.7	0.7

Contaminant	CAS No.	Ingestion-Dermal Health Based Criterion	Inhalation Health Based Criterion	Soil PQL	Non-Residential Direct Contact Soil Remediation Standard
N-Nitrosodi-n-propylamine	621-64-7	0.3	0.05	0.2	0.3
N-Nitrosodiphenylamine	86-30-6	390	130,000	0.2	390
Pentachlorophenol	87-86-5	10	1,700	0.3	10
Phenanthrene	85-01-8	NA	300,000	0.2	300,000
Phenol	108-95-2	210,000	NA	0.2	210,000
Polychlorinated biphenyls (PCBs)	1336-36-3	1	57	0.03	1
Pyrene	129-00-0	18,000	300,000	0.2	18,000
Selenium	7782-49-2	5,700	NA	4	5,700
Silver	7440-22-4	5,700	NA	1	5,700
Styrene	100-42-5	230,000	260	0.005	260
Tertiary butyl alcohol (TBA)	75-65-0	20,000	11,000	0.1	11,000
1,1,2,2-Tetrachloroethane	79-34-5	150	3	0.005	3
Tetrachloroethene (PCE) (Tetrachloroethylene)	127-18-4	39	5	0.005	5
Thallium	7440-28-0	79	23,000	3	79
Toluene	108-88-3	91,000	NA	0.005	91,000
Toxaphene	8001-35-2	3	200	0.2	3
1,2,4-Trichlorobenzene	120-82-1	820	NA	0.005	820
1,1,1-Trichloroethane	71-55-6	4,200	NA	0.005	4,200
1,1,2-Trichloroethane	79-00-5	440	6	0.005	6
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	100	20	0.005	20
Trichlorofluoromethane	75-69-4	340,000	NA	0.005	340,000
2,4,5-Trichlorophenol	95-95-4	68,000	NA	0.2	68,000
2,4,6-Trichlorophenol	88-06-2	74	960	0.2	74
Vanadium	7440-62-2	1,100	470,000	5	1,100
Vinyl chloride	75-01-4	8	2	0.005	2
Xylenes	1330-20-7	170,000	NA	0.005	170,000
Zinc	7440-66-6	340,000	110,000	6	110,000

NA = Standard not available * The direct contact standard for arsenic is based on natural background

APPENDIX 11
NJDEP GROUNDWATER QUALITY CRITERIA

Ground Water Quality Standards N.J.A.C. 7:9C

Appendix Table 1 - Specific Ground Water Quality Criteria

Specific Ground Water Quality Criteria - Class IIA and Practical Quantitation Levels

Constituent	CASRN	Ground Water Quality Criterion	Practical Quantitation Level (PQL) *	Higher of PQL and Ground Water Quality Criterion (ug/L)*
Acenaphthene	83-32-9	400	10	400
Acetone	67-64-1	6,000	10	6,000
Acetophenone	98-86-2	700	10	700
Acrolein	107-02-8	4	5	5
Acrylamide	79-06-1	0.008	0.2	0.2
Acrylonitrile	107-13-1	0.06	2	2
Adipates (Di(2-ethylhexyl) adipate) (DEHA)	103-23-1	30	3	30
Alachlor	15972-60-8	0.4	0.1	0.4
Aldicarb sulfone	1646-88-4	7	0.3	7
Aldrin	309-00-2	0.002	0.04	0.04
Aluminum	7429-90-5	200	30	200
Ammonia (Total)	7664-41-7	3,000	200	3,000
Aniline	62-53-3	6	2	6
Anthracene	120-12-7	2,000	10	2,000
Antimony (Total)	7440-36-0	6	3	6

Arsenic (Total)	7440-38-2	0.02	3	3
Asbestos	1332-21-4	7X10^{6}f/L>10um[a]	10^{6}f/L>10um[a]	7X10^{6}f/L>10um[a]
Atrazine	1912-24-9	3	0.1	3
Barium **	7440-39-3	6,000	200	6,000
Benz(a)anthracene	56-55-3	0.05	0.1	0.1
Benzene	71-43-2	0.2	1	1
Benzidine	92-87-5	0.0002	20	20
Benzo(a)pyrene (BaP)	50-32-8	0.005	0.1	0.1
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	0.05	0.2	0.2
Benzo(k)fluoranthene	207-08-9	0.5	0.3	0.5
Benzoic acid	65-85-0	30,000	50	30,000
Benzyl alcohol	100-51-6	2,000	20	2,000
Beryllium	7440-41-7	1	1	1
alpha-BHC- (alpha-HCH)	319-84-6	0.006	0.02	0.02
beta-BHC (beta-HCH)	319-85-7	0.02	0.04	0.04
gamma-BHC (gamma-HCH/Lindane)	58-89-9	0.03	0.02	0.03
1,1-Biphenyl	92-52-4	400	10	400
Bis(2-chloroethyl) ether	111-44-4	0.03	7	7
Bis(2-chloroisopropyl) ether	108-60-1	300	10	300
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	2	3	3
Bromodichloromethane (Dichlorobromomethane)	75-27-4	0.6	1	1
Bromoform	75-25-2	4	0.8	4
n-Butanol (n-Butyl alcohol)	71-36-3	700	20	700
tertiary-Butyl alcohol (TBA)	75-65-0	100	2	100

Butylbenzyl phthalate	85-68-7	100	1	100
Cadmium	7440-43-9	4	0.5	4
Camphor	76-22-2	1,000	0.5	1,000
Carbofuran	1563-66-2	40	0.5	40
Carbon disulfide	75-15-0	700	1	700
Carbon tetrachloride	56-23-5	0.4	1	1
Chlordane	57-74-9	0.01	0.5	0.5
Chloride	16887-00-6	250,000	2,000	250,000
4-Chloroaniline (p-Chloroaniline)	106-47-8	30	10	30
Chlorobenzene (Monochlorobenzene)	108-90-7	50	1	50
Chloroform	67-66-3	70	1	70
2-Chloronaphthalene	91-58-7	600	10	600
2-Chlorophenol	95-57-8	40	20	40
Chlorpyrifos	2921-88-2	20	0.1	20
Chromium (Total)	7440-47-3	70	1	70
Chrysene	218-01-9	5	0.2	5
Color		10 CU	5 CU	10 CU
Copper	7440-50-8	1,300	4	1,300
Cumene (Isopropyl benzene)	98-82-8	700	1	700
Cyanide (free Cyanide)	57-12-5	100	6	100
2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	70	2	70
Dalapon (2,2-Dichloropropionic acid)	75-99-0	200	0.1	200
4,4'-DDD (p,p'-TDE)	72-54-8	0.1	0.02	0.1
4,4'-DDE	72-55-9	0.1	0.01	0.1

4,4'-DDT	50-29-3	0.1	0.1	0.1
Demeton	8065-48-3	0.3	1	1
Dibenz(a,h)anthracene	53-70-3	0.005	0.3	0.3
Dibromochloromethane (Chlorodibromomethane)	124-48-1	0.4	1	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.02	0.02	0.02
Di-n-butyl phthalate	84-74-2	700	1	700
1,2-Dichlorobenzene (ortho)	95-50-1	600	5	600
1,3-Dichlorobenzene (meta)	541-73-1	600	5	600
1,4-Dichlorobenzene (para)	106-46-7	75	5	75
3,3-Dichlorobenzidine	91-94-1	0.08	30	30
Dichlorodifluoromethane (Freon 12)	75-71-8	1,000	2	1,000
1,1-Dichloroethane (1,1-DCA)	75-34-3	50	1	50
1,2-Dichloroethane	107-06-2	0.3	2	2
1,1-Dichloroethylene (1,1-DCE)	75-35-4	1	1	1
cis-1,2-Dichloroethylene	156-59-2	70	1	70
trans-1,2-Dichloroethylene	156-60-5	100	1	100
2,4-Dichlorophenol (DCP)	120-83-2	20	10	20
1,2-Dichloropropane	78-87-5	0.5	1	1
1,3-Dichloropropene (cis and trans)	542-75-6	0.4	1	1
Dieldrin	60-57-1	0.002	0.03	0.03
Diethyl phthalate	84-66-2	6,000	1	6,000
Diisodecyl phthalate (DIDP)	26761-40-0	100	3	100
Diisopropyl ether (DIPE)	108-20-3	20,000	5	20,000
2,4-Dimethyl phenol	105-67-9	100	20	100

2,4-Dinitrophenol	51-28-5	10	40	40
2,4-Dinitrotoluene/2,6-Dinitrotoluene Mix	25321-14-6	0.05	10	10
Di-n-octyl phthalate	117-84-0	100	10	100
Dinoseb	88-85-7	7	2	7
Diphenylamine	122-39-4	200	20	200
1,2-Diphenylhydrazine	122-66-7	0.04	20	20
Diquat	85-00-7	20	2	20
Endosulfan (alpha and beta)	115-29-7	40	0.1	40
alpha-Endosulfan (Endosulfan I)	959-98-8	40	0.02	40
beta-Endosulfan (Endosulfan II)	33213-65-9	40	0.04	40
Endosulfan sulfate	1031-07-8	40	0.02	40
Endothall	145-73-3	100	60	100
Endrin	72-20-8	2	0.03	2
Epichlorohydrin	106-89-8	4	5	5
Ethion	563-12-2	4	0.5	4
Ethyl acetate	141-78-6	6,000	10	6,000
Ethylbenzene	100-41-4	700	2	700
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.0004	0.03	0.03
Ethylene glycol	107-21-1	300	200	300
Ethylene glycol monomethyl ether	109-86-4	7	20,000	20,000
Ethyl ether	60-29-7	1,000	50	1,000
Fluoranthene	206-44-0	300	10	300
Fluorene	86-73-7	300	1	300
Fluoride	7782-41-4	2,000	500	2,000

Foaming agents (ABS/LAS)		500	0.5	500
Formaldehyde	50-00-0	100	30	100
Glyphosate	1071-83-6	700	30	700
Hardness (as CaCO3)		250,000	10,000	250,000
Heptachlor	76-44-8	0.008	0.05	0.05
Heptachlor epoxide	1024-57-3	0.004	0.2	0.2
Hexachlorobenzene	118-74-1	0.02	0.02	0.02
Hexachlorobutadiene	87-68-3	0.4	1	1
Hexachlorocyclopentadiene	77-47-4	40	0.5	40
Hexachloroethane	67-72-1	2	7	7
Hexane (n-Hexane)	110-54-3	30	5	30
Indeno (1,2,3-cd)pyrene	193-39-5	0.05	0.2	0.2
Iron	7439-89-6	300	20	300
Isophorone	78-59-1	40	10	40
Lead (Total)	7439-92-1	5	5	5
Malathion	121-75-5	100	0.6	100
Manganese	7439-96-5	50	0.4	50
Mercury (Total)	7439-97-6	2	0.05	2
Methanol	67-56-1	4,000	70	4,000
Methoxychlor	72-43-5	40	0.1	40
Methyl acetate	79-20-9	7,000	0.5	7,000
Methyl bromide (Bromomethane)	74-83-9	10	1	10
Methylene chloride	75-09-2	3	1	3
Methyl ethyl ketone (2-Butanone) (MEK)	78-93-3	300	2	300
Methyl Salicylate	119-36-8	4,000	50	4,000

Methyl tertiary butyl ether (MTBE)	1634-04-4	70	1	70
Mirex	2385-85-5	0.1	0.08	0.1
Molybdenum	7439-98-7	40	2	40
Naphthalene	91-20-3	300	2	300
Nickel (Soluble salts)	7440-02-0	100	4	100
Nitrate	14797-55-8	10,000	100	10,000
Nitrite	14797-65-0	1,000	10	1,000
Nitrate and Nitrite		10,000	10	10,000
Nitrobenzene	98-95-3	4	6	6
N-Nitrosodimethylamine	62-75-9	0.0007	0.8	0.8
N-Nitrosodiphenylamine	86-30-6	7	10	10
N-Nitrosodi-n-propylamine (Di-n-propylnitrosamine)	621-64-7	0.005	10	10
Odor		3b	NA	3b
Oil & Grease & Petroleum Hydrocarbons		None Noticeable	NA	None Noticeable
Oxamyl	23135-22-0	200	1	200
Parathion	56-38-2	4	0.08	4
PBBs (Polybrominated biphenyls)	67774-32-7	0.004	0.001	0.004
PCBs (Polychlorinated biphenyls)	1336-36-3	0.02	0.5	0.5
Pentachlorophenol	87-86-5	0.3	0.1	0.3
pH		6.5-8.5	NA	6.5-8.5
Phenol	108-95-2	2,000	10	2,000
Picloram	1918-02-1	500	1	500
Pyrene	129-00-0	200	0.1	200
Salicylic acid	69-72-7	80	30	80
Selenium (Total)	7782-49-2	40	4	40
	7440-			

Silver	22-4	40	1	40
Simazine	122-34-9	0.3	0.8	0.8
Sodium	7440-23-5	50,000	400	50,000
Styrene	100-42-5	100	2	100
Sulfate	14808-79-8	250,000	5,000	250,000
Taste		None Objectionable	NA	None Objectionable
TDS (Total dissolved solids)		500,000	10,000	500,000
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	0.0000002	0.00001	0.00001
1,1,1,2-Tetrachloroethane	630-20-6	1	1	1
1,1,2,2-Tetrachloroethane	79-34-5	1	1	1
Tetrachloroethylene (PCE)	127-18-4	0.4	1	1
2,3,4,6-Tetrachlorophenol	58-90-2	200	3	200
Tetrahydrofuran	109-99-9	10	10	10
Thallium	7440-28-0	0.5	2	2
Toluene **	108-88-3	600	1	600
Toxaphene	8001-35-2	0.03	2	2
2,4,5-TP (2-(2,4,5-Trichlorophenoxy)propionic acid)	93-72-1	60	0.6	60
1,2,4-Trichlorobenzene	120-82-1	9	1	9
1,1,1-Trichloroethane (TCA)	71-55-6	30	1	30
1,1,2-Trichloroethane	79-00-5	3	2	3
Trichloroethene (TCE)	79-01-6	1	1	1
Trichlorofluoromethane (Freon 11)	75-69-4	2,000	1	2,000
2,4,5-Trichlorophenol	95-95-4	700	10	700
	88-06-			

2,4,6-Trichlorophenol	2	1	20	20
1,2,3-Trichloropropane	96-18-4	0.005	0.03	0.03
Vanadium pentoxide	1314-62-1	60	1	60
Vinyl acetate	108-05-4	7,000	5	7,000
Vinyl chloride	75-01-4	0.08	1	1
Xylenes (Total)	1330-20-7	1,000	2	1,000
Zinc	7440-66-6	2,000	10	2,000
Microbiological criteria[m], Radionuclides & Turbidity	Standards promulgated in the Safe Drinking Water Act Regulations (N.J.A.C. 7:10-1 et seq.)			

Explanation of Terms:

* = Ground Water Quality Criteria and PQLs are expressed as ug/L unless otherwise noted. Table 1 criteria are all maximum values unless clearly indicated as a range for which the minimum value is to the left and the maximum value is to the right.

** = revised via administrative change (see 39 N.J.R. 3538(a)).

PQL = Practical Quantitation Level as defined in N.J.A.C. 7:9C-1.4

CASRN = Chemical Abstracts System Registration Number

NA = not available for this constituent.

a = Asbestos criterion is measured in terms of fibers/L longer than 10 micrometers (f/L > 10 um)

ug = micrograms, L = liter, f = fibers, CU= Standard Cobalt Units

b = Odor Threshold Number, mg = milligrams, H = Hardness

(Total) = means the concentration of metal in an unfiltered sample following treatment with hot dilute mineral acid (as defined in "Methods for Chemical Analysis of Water & Wastes", EPA-600/4-79-020, March 1979) or other digestion defined by the analytical method. However samples that contain less than 1 nephlometric turbidity unit (NTU) and are properly preserved, may be directly analyzed without digestion.

m = Pursuant to prevailing Safe Drinking Water Act Regulations any positive result for fecal coliform is in violation of the MCL and is therefore an exceedance of the ground water quality standards.

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Click here to see Ground Water Quality Standards N.J.A.C. 7:9C -- Appendix Table 2

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Department of Environmental Protection
P. O. Box 402
Trenton, NJ 08625-0402

Last Updated: September 18, 2007

APPENDIX 12

HARD COPY LABORATORY ANALYTICAL DATA NOT INCLUDED IN THIS DRAFT SUBMISSION

APPENDIX 13
GIS DATA DISK NOT INCLUDED IN THIS DRAFT SUBMISSION

APPENDIX 14
NJDEP REPORT CERTIFICATION FORM

CERTIFICATIONS
N.J.A.C. 7:26C-1.2 et seq.

Any person making a submission to the Department required by this chapter and pursuant to N.J.A.C. 7:26E, shall include the following signature and notarized certification, for each technical submittal. Additionally, the certification shall indicate the case name and address, case number, type of documents submitted, eg., Remedial Action Report, for each technical submittal.

TYPE OF DOCUMENT: Site Investigation Report (SIR)
CASE NAME: 1700-1712 and 1702-1716 McCarter Highway
CASE ADDRESS: 1700-1712 and 1702-1716 McCarter Highway
Block 614, Lots 63 and 64, Newark, NJ
CASE NUMBER: 09-10-19-1742-42

The following certification shall be signed by:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively, or;
3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
4. For persons other than 1 through 3 above, by the person with legal responsibility for the site.

"I certify under penalty of law that I have personally examined and a familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that 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 that 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."

Printed Name _____ Title _____

Signature _____ Date _____

Notary Signature _____ Date _____