Appendix F Supplemental Site Investigation Report, April 2004

TRC

Customer-Focused Solutions

SUPPLEMENTAL SITE INVESTIGATION REPORT

SOUTH BROOKLYN MARINE TERMINAL
Brooklyn, New York

Prepared for

New York City Economic Development Corporation
New York, New York

Prepared by

TRC Environmental Corporation
Windsor, Connecticut

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TRC Project No. 31193-0210-00000
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1.0 INTRODUCTION

This report summarizes supplemental investigation activities completed by TRC Environmental Corporation (TRC) at the South Brooklyn Marine Terminal (SBMT) property located in the Sunset Park section of Brooklyn, New York (the subject site) on behalf of the site owner, the New York City Economic Development Corporation (NYCEDC). The scope of work was conducted in accordance with the Supplemental Environmental Site Investigation Work Plan prepared by TRC and dated December 2002 and included a geophysical survey at suspected underground storage tank (UST) locations, the subsequent advancement of test pits at geophysical anomalies, and the advancement of soil borings at previously identified areas of concern and proposed construction locations.

This report also presents information related to on-going environmental activities associated with the removal of underground and aboveground storage tanks from the property in 1998 and subsequent investigation, remedial and monitoring activities conducted for the New York City Department of Design and Construction (DDC) as part of their Upgrading, Replacement, or Decommissioning of Petroleum Product Storage Tanks Project on City-owned properties. The information related to this DDC project was not available to TRC when a Phase I Assessment of the SBMT was conducted by TRC in 2002.

2.0 BACKGROUND

The South Brooklyn Marine Terminal is a 110 acre facility located in the Sunset Park section of Brooklyn, New York. The property is situated between 29th and 39th Streets along Second Avenue and bound by New York Harbor to the northwest. The subject property is identified in the New York City Department of Buildings records as Block 662, Lot 1. Historically, the facility was an active marine terminal. Until recently, the terminal was utilized for the importation and distribution of cocoa beans. Several warehouses and vehicle storage and maintenance buildings were also located on the property until circa 1970. A site location map is provides as Figure 1. A site plan is provided as Figure 2.

Much of the facility is currently being utilized for the storage and distribution of new automobiles by several tenants, vehicle parking and as a vehicle impound lot by the New York City Police Department. Two large multi-story warehouse buildings the 39th Street Shed and N Shed are located on the northwest corner of the property. The 39th Street Shed is currently vacant while the N Shed is being utilized for impounded vehicle storage. An addition added onto the southern side of the N Shed is referred to as the maintenance shop and is currently being utilized by the NYCEDC. The 35th Street shed has recently been demolished as part of a pier rehabilitation project. A four acre rail yard operated by New York City Transit is located on the western side of the site. The rail yard currently sees little use. Abandoned truck scales and an associated building are located to the west of the rail yard. A small corrugated metal building used for vehicle preparation by an automobile dealer is located on the southwest side of the site. The last permanent building on the property is a multi-story structure situated in the center of the property known as the tower building. A second set of derelict truck scales abut the west side of the tower building. An unofficial street known as Marginal Way transects the center of the property in a northeast to southwest orientation. The property is enclosed by chain-link fencing and New York Harbor. Miles of chain-link fence also delineate the various tenant lots on the property.

2.1 Previous Investigations

2.1.1 DDC Petroleum Product Storage Tanks Project Reports

Ballard Engineering Consulting, PC (Ballard) under contract to the DDC conducted a pre-design investigation at the South Brooklyn Marine Terminal to evaluate the upgrading,

replacement or decommissioning of petroleum product storage tanks on the property. The scope of the investigation included: a records search of New York City Fire Department (NYFD) files, New York City Department of Buildings (DOB) files, New York State Department of Environmental Conservation (NYSDEC) files; a review of historic fire insurance Sanborn Maps; personnel interviews; an evaluation of relevant UST regulatory requirements; development and discussion of compliance alternatives; and recommendations for additional investigation activities to be conducted prior to initiating UST compliance activities. The findings of this investigation are summarized in a report entitled *Pre-design Investigation for Site #38 – Brooklyn Marine Terminal Foot of 29th to 39th Streets and Gowanus Bay Brooklyn, New York,* prepared by Ballard, dated October 13, 1997.

Pertinent pre-design investigation findings, conclusions and recommendations are summarized below:

- NYFD records revealed permits and designs for seven USTs on the SBMT property. Table 1 provided in Appendix A provides a summary of these tanks.

- DOB records revealed permits for the installation of twenty four (24) petroleum storage tanks between the foot of 29th and 39th streets. The DOB records did not include the USTs noted in the NYFD files. Table 2 in Appendix A provides a summary of these tanks.

- A site visit conducted by Ballard confirmed the existence of seven vent pipes for the seven known USTs as well as two additional vent pipes, one on the southern wall of the maintenance shop and one on the eastern end of the N Shed. The existence of eight aboveground storage tanks (ASTs) was noted during the site visit. The report did not specify the use of the ASTs. No evidence of the existence of the 24 tanks noted in the DOB files was observed by Ballard.

- Ballard recommended that all USTs, five out-of-service ASTs, and all associated piping be removed in accordance with pertinent regulations to bring the site into compliance with petroleum storage tank regulations. In addition Ballard, recommended that in use ASTs be equipped with secondary containment and that an environmental site assessment be performed at the tank locations.

Based on the investigation findings, the following tanks were removed: two 550-gallon gasoline USTs, one 4,000-gallon diesel UST, four 4,000-gallon gasoline USTs, one 550-gallon waste oil UST, one 1,000-gallon AST of unknown contents, and one 550-gallon fuel oil AST. In addition, four hydraulic lifts were removed from the property. Following the UST removals,

post-excavation soil sampling and testing were conducted. A geophysical investigation was also conducted at locations where the records search indicated possible USTs. The scope and findings of this investigation are summarized in a report entitled *Site Specific Investigation Plan Site #38 – Brooklyn Marine Terminal Foot of 29th to 39th Streets and Gowanus Bay Brooklyn, New* York prepared by Ballard, dated July 17, 1998.

Pertinent investigation findings, conclusions and recommendations are summarized below:

- This report documents the removal of the aforementioned UST's from the SBMT. A NYCFD affidavit of closure is provided in Appendix A.

- Post-excavation soil samples collected from three tank excavations were analyzed for volatile organic compound (VOCs) by EPA Method 8021, base/neutral extractables by EPA Method 8270 and total lead by EPA Method 6010. Figures showing the locations of these excavations and samples are provided in Appendix A. Analytical results indicated the presence of petroleum related VOCs, SVOCs and lead in numerous excavation sidewall and bottom soil samples. Detected concentrations of several VOCs and SVOCs exceeded Alternative Guidance Values (AGVs) established in NYSDEC *STARS Memo No. 1: Petroleum-Contaminated Soil Guidance Policy* dated August 1992. Detected lead concentrations exceeded the Recommended Soil Clean-up Objectives outlined in *Technical & Guidance Memorandum: Determination of Soil Clean-up Objectives and Clean-up Levels*, revised January, 1994. Analytical data summary tables are provided in Appendix A.

- Results of the geophysical investigation (EM-61 electromagnetic survey) performed at eight suspected UST locations did not indicate the presence of additional USTs on the subject property. A site figure provided in Appendix A depicts the locations of the geophysical surveys.

- Additional work recommended by Ballard included the completion of thirteen soil borings and ground water monitoring wells in the vicinity of the three tank excavations, two rounds of ground water sampling and testing and well hydraulic testing.

In August through October 2000, URS Corporation Group Consultants, Inc. (URS) conducted a site-specific investigation that incorporated the components of the site-specific investigation plan (SSIP) prepared in 1998 by Ballard, NYSDEC comments on the SSIP, and modifications proposed by URS (additional soil sampling and chemical analyses). The revised SSIP was reviewed and approved by the NYSDEC in a letter dated April 20, 2002. A copy of

this letter is provided in Appendix A. The scope of the SSIP included the installation of four borings and fourteen monitoring wells, soil and ground water sampling and analyses and ground water elevation and floating product monitoring. The scope and findings of these activities are summarized in a report titled *Investigation Summary and Remedial Plan for the New York City Economic Development Corporation – Brooklyn Marine Terminal Foot of 29th to 39th Streets and Gowanus Bay Brooklyn, New York,* prepared by URS, dated April 2001. Report figures and data tables that summarize the results of this investigation are provided in Appendix A.

Pertinent investigation findings, conclusions and recommendations are summarized below:

- Site soils encountered during the investigation were described as a uniform fill consisting of a fine to medium sand, with trace silt and gravel and debris (brick, concrete, asphalt, cinders and ash). Based on well slug test results, the fill was reported as highly permeable with hydraulic conductivity ranges from approximately 3.4 ft/day to 65 ft/day.

- Ground water was observed at depths of approximately 7 to 8 feet below ground surface with a flow direction to the northeast towards Gowanus Bay (New York Harbor). Tidal influences to ground water flow were also noted.

- An area of 800 square feet of vadose zone soils with gasoline-related VOC impacts exceeding STARS TCLP Extraction Guidance Values was approximated at Area A located to the south of the western wing of the 39th Street Shed.

- Two discrete areas of soil contamination (gasoline-related VOCs exceeding STARS TCLP Extraction Guidance Values) were identified as Area B which is located next to the southwest corner of the N Shed. The combined areas include approximately 1,100 square feet of impacted soils to depths of approximately 6 ftbg. VOC impacts to ground water were also reported at concentrations in excess of NYSDEC ground water quality criteria in Area B.

- Soil boring data for Area C, which is located to the south of the N Shed, indicated the presence of a small area of shallow VOC soil contamination. Detected gasoline-related VOC concentrations exceeded STARS TCLP Extraction Guidance Values.

- Three areas of gasoline-related VOC soil impacts were reported as Area D, which is located next to the southeast corner of the N Shed. Observed VOC concentrations exceeded STARS TCLP Extraction Guidance Values. The areal extent of the soil impacts was not fully delineated.

- Based on a brief evaluation of potential remedial technologies that could be implemented at the site to address observed soil and ground water impacts, URS recommended excavation and off-site disposal of impacted vadose zone soils and dissolved oxygen elevation to expedite the in-situ natural biodegradation of ground water impacts. Limited additional investigations were also recommended to refine the extent of the vadose zone soil impacts.

The remedial plan was approved with comments by the NYCDEC in a letter dated August 7, 2001. A copy of this letter is provided in Appendix A.

In a letter from URS Corporation to NYSDEC dated October 5, 2001, URS proposed to conduct a pre-design investigation (PDI) to further evaluate the extent of contaminated soil in Areas A, B, C and D and to evaluate the extent of ground water impacts downgradient of ground water monitoring well MW-B-04. The proposed scope of work included the installation of 16 soil borings, soil field screening and soil sampling for chemical analyses. The scope also included the installation of five additional monitoring wells and subsequent ground water sampling. Figures depicting the proposed soil boring and monitoring well locations are provided in Appendix A.

In a letter dated November 25, 2002, URS presented the results of additional soil sampling conducted at the site in July 2002 to further delineate the extent of vadose zone soil contamination. A summary of the findings of the PDI investigation conducted in February 2002 was also presented. The findings of the PDI investigation showed no evidence of soil contamination when the sample data were compared to NYSDEC Technical and Administrative Guidance Memorandum (TAGM) No. 4046 recommended clean-up objectives. Previous soil analytical data had been compared to NYSDEC STARS Memo No. 1 toxicity characteristic leaching procedure (TCLP) guidance values. Six additional soil borings were completed and sampled by URS in July 2002 to further evaluate soil contamination at several areas where previous soil sampling results (TCLP analyses) showed exceedances of STARS Memo No. 1 TCLP criteria. Soil samples were analyzed for STARS list VOCs and naphthalene (EPA Method 8260) and results compares to TAGM 4046 guidelines. VOCs were not detected in any of the soil samples analyzed. Based on these results, URS recommended no further action for vadose zone soils in Areas A, B, C and D. The in-situ application of an oxygen releasing compound product to address residual ground water impacts in Areas B and D was also recommended.

Report figures and data tables that summarize the results of this investigation are provided in Appendix A.

In a letter dated May 19, 2003, URS presented the results of the additional soil sampling and quarterly ground water monitoring conducted at the site by URS in 2002. Pursuant to the request of the NYSDEC, an additional soil boring was advanced and soil samples collected to evaluate the existing soil contamination in the vicinity of former boring SB-C-01 where prior TCLP data exceeded STARS Memo No. 1 criteria. One VOC and naphthalene were detected in the soil samples and no further action was recommended for site soils. Results from the additional round of ground water monitoring in Areas B, C and D indicated only minor ground water contamination remained. Ground water analytical data from samples collected from monitoring wells MW-B-04 and MW-D-05 indicated residual VOCs and naphthalene above NYSDEC Ground Water Quality Criteria. URS recommended additional quarterly monitoring of these wells until contaminant levels in each well are below NYSDEC Ground Water Quality Criteria for two consecutive sampling events. The NYSDEC subsequently approved the revised remedial approach in a letter dated October 21, 2003. Figures and summary tables from this report and a copy of the approval letter are provided in Appendix A.

A report entitled *Quarterly Ground Water Monitoring Report, July – September 2003 for the New York City Department of Design and Construction, Underground Storage Tank Sites - 109th Precinct, Brooklyn Marine Terminal,* prepared by URS, dated October 2003 provides a summary of a quarterly ground water monitoring event conducted on August 28, 2003. Ground water analytical results indicated no contaminants were detected in the well MW-B-04 sample and gasoline-related VOCs in excess of NYSDEC Ground Water Quality Criteria were detected in the sample collected from well MW-D-05. Figures and data tables from this report are provided in Appendix A.

Information pertaining to a December 2003 quarterly ground water monitoring event conducted by URS Corporation at the SBMT was obtained by TRC from the NYSDEC in April 2004. Ground water sampling and testing results documented in this report indicated gasoline-related VOCs (ethyl benzene, xylenes, trimethylbenzenes, and naphthalene) in excess of NYSDEC Ground Water Quality Criteria were present in a sample collected from monitoring well MW-B-04. Trace gasoline-related VOCs detected in MW-D-05 did not exceed NYSDEC

Ground Water Quality Criteria. Figures and data tables from this report are provided in Appendix A.

2.1.2 TRC Site Assessments

Under contract to the NYSDEC, TRC Environmental Corporation (TRC) conducted a Phase I Environmental Site Assessment (ESA) of the South Brooklyn Marine Terminal (SBMT) in July 2002. A summary of the report findings and recommendations is provided below. The above summarized documentation on the prior tank and soil removals and related investigation activities was not discovered while conducting the Phase I. This documentation was discovered by TRC during the preparation of this report.

The SBMT is currently used mostly for the storage of new automobiles and secure automobile impounding by the New York City Police Department (NYPD). As shown on Figure 2, structures on-site consist of the 39th and 35th Street Sheds, the Tower Building (occupied by the NYPD), and the "N" Shed. An 8-track rail siding operated by New York City Transit is also located on the southern portion of the subject property. Based on TRC's background research and visual inspection of the subject property on July 15, 2002, the significant findings of TRC's Phase I ESA are as follows:

Through a review of historical Sanborn Maps, TRC determined that four 160,000-gallon oil/diesel oil aboveground storage tanks, a diesel oil filling station with associated underground storage tanks (USTs), and numerous UST gasoline tanks had been located in various areas of the subject property as early as 1951. However, no information was available to TRC regarding the current status of these tanks.

Based upon the above-described concerns, the following recommendations were made by TRC in the Phase I report:

- As required by applicable state and federal petroleum regulations, USTs no longer in use must be permanently closed in accordance with applicable regulations. Closure of USTs requires soil sampling and testing, as per NYSDEC guidance , to confirm no impacts to soil conditions, or if warranted, to verify completeness of any prior soil and/or ground water remediation efforts.

- The potential for additional on-site USTs other than the above-mentioned USTs exists. Therefore, a geophysical survey and/or test pits was recommended to further assess the presence of USTs at the site.

- If site development warrants an understanding of soil and ground water conditions prior to construction, a subsurface investigation should be performed to identify and delineate areas of petroleum contaminated soil and/or ground water. TRC collected soil samples for chemical testing during a site geotechnical investigation in July 2002 and conducted a Phase II subsurface soil investigation on July 31, 2002.

Significant findings of TRC's Phase II environmental site assessment are presented in a TRC report dated September 2002 and are summarized below:

- Volatile organic compounds (VOCs) were detected in two of eighteen soil samples (includes one duplicate) analyzed for VOCs at concentrations exceeding NYSDEC TAGM 4046 soil guidelines. PAHs were detected in samples from seven of eighteen locations at concentrations exceeding NYSDEC TAGM 4046 guidance values. Metals were detected in fourteen of eighteen soil samples at concentrations exceeding NYSDEC TAGM 4046 soil guidelines. PCBs were detected in two samples at levels below TAGM soil guidelines.

- The site is almost completely covered by either asphalt and/or concrete, therefore the detected levels of contaminants in the underlying soils would not likely pose a significant concern to site occupants unless disturbed or exposed by site development activities.

- The TCLP PAHs data showed non-detect levels of PAHs in soil sample leachate indicating those soils do not present a significant potential risk to site ground water.

- Subsurface soil samples collected at sample locations B-17, B-20, and B-22 exhibited a petroleum-like nuisance odor as described by STARS Memo No. 1 nuisance characteristics. In addition, there were no other signs of potential petroleum impacts (e.g., soil staining, oil sheen). Laboratory results indicated no significant soil contamination at these locations. The likely cause for the nuisance odor was the urban fill intermixed with site soils consisting of cinders, slag and miscellaneous construction and demolition debris.

- The laboratory data for soil samples collected in the vicinity of several former on-site petroleum storage tanks, as determined by historical Sanborn maps, exceeded NYSDEC soil guidance values. The soil samples from several of these locations were also observed to have signs of petroleum impacts (e.g., staining, and/or odors). The soil samples collected in the vicinity of the former set of four 160,000-gallon diesel oil ASTs, located in western portion of the site at the N Shed, had observed petroleum impacts and contained VOCs, PAHs, and metals levels exceeding NYSDEC TAGM 4046soil guidelines.

Based upon the findings of the Phase I and Phase II environmental assessment, TRC recommended the following:

1. A site-specific Health & Safety Plan should be developed and implemented during construction to minimize exposure by workers and the general public to the urban fill comprising the site soils.

2. The characterization of any excess soils generated during construction to ensure the materials are properly disposed or reused/recycled offsite.

3. The provision of adequate personal protection should be provided to site construction workers exposed to the fill and excavated soils/fill generated during site development.

4. Geophysical surveys in those open areas of the site where USTs are suspected based on historical Sanborn maps. The exact former tank locations are unknown and geophysical surveys in the suspected historical tank locations may prove useful in locating the tanks or remaining tank appurtenances. Based on the geophysical survey findings, test pit excavations may be completed at detected anomalies to assess the presence of USTs and any associated soil impacts. Any discovered tanks or soil impacts may require follow-up soil investigations, ground water investigations and/or soil removals.

5. Completing several soil borings within and/or around the "N" Building in the immediate area of the former 160,000-gallon ASTs. Boring location B-17 was designated for this area initially; however, access to the building was not available during the sampling event. This location was moved approximately 300 feet southwest to the nearby outer perimeter of the building and centrally located along the southwest wall. The soil sample collected from the B-17 location exhibited no exceedances of soil guidance values for VOCs or metals (no total PAH analysis), although a strong petroleum-like odor was detected in the soils from this boring from depths of 0 to 12-feet below grade.

6. Completing several soil borings around prior boring location B-10, which is located approximately 600 feet south of the former 160,000-gallon AST quartet and exhibited the highest concentrations of petroleum-related VOCs. The soil from 8.5 to 10.5-feet below grade at B-10 was also observed to have signs of petroleum impacts. The closest boring to B-10 is the B-21 location approximately 250 feet due east. The soil sample collected from the B-21 location and the other nearby B-17 location exhibited no exceedances of soil guidance values for VOCs.

3.0 FIELD INVESTIGATIONS

The following section provides descriptions of the supplemental geophysical survey investigation, test pit investigation and soil boring program performed by TRC in August 2003.

3.1 Geophysical Investigation

Bucks Geophysical Corporation of Plumsteadville, PA, under contract to TRC, conducted a geophysical survey at the SBMT on August 6, 2003. The survey was completed at five locations on the subject property where historic Sanborn maps indicated the prior existence of buried gasoline tanks (see Figure 2). The geophysical techniques employed included an electromagnetic terrain conductivity survey using a Geonics EM-61 instrument and magnetometer survey using a GEM Systems GSM-196 magnetometer.

A 50-foot by 50-foot area was cleared at each of the five locations and geophysical surveys conducted along five-foot spaced, northwest-southeast trending transverses. EM values were logged at one-foot intervals along each transverse and magnetometer data were recorded at 0.5-second time intervals (approximately equal to 2 foot distance intervals) while the operator walked along each transverse. Following the completion of the field surveys at each location, preliminary mapping and interpretation of the data was conducted in the field to identify the locations of any magnetic or conductive anomalies. These anomalies were then marked out in the field for test pit investigation. The location of each geophysical survey area is shown on Figure 2.

3.2 Test Pit Investigation

Based on the results of the geophysical survey, ten test pits were excavated at the five survey areas (designated Areas A through E) by American Environmental Assessment Corporation, of Wyandanch, New York under the direction of TRC on August 7, 2003. The location of each test pit within the five areas is shown on Figure 2. A summary of the geophysical anomalies and test pit details is provided as Table 1. Test pit logs describing the observed conditions are presented in Appendix B.

3.3 Soil Boring Program

3.3.1 Soil Borings

Twelve direct-push soil borings were advanced at the site to further assess the characteristics of the fill and soil beneath the site. The borings were completed in areas previously identified as areas of potential concern and at locations where proposed site development are expected to uncover/disturb subsurface soils. Borings B-27 and B-28 were advance next to historic and active electrical transformer buildings. Borings B-29 through B-32 were advanced within the footprint of proposed buildings where subsurface soils will be disturbed. Borings B-33 and B-34 were advanced adjacent to prior boring B-10 where petroleum impacts to subsurface soil were discovered. Borings B-35 through B-38 were advance inside the 37th Street shed (N Shed) where historic Sanborn Maps indicate the prior presence of petroleum storage and fueling areas. Boring locations are shown on Figure 2. Boring logs are provided in Appendix B.

Soil borings were advanced by Aquifer Drilling and Testing, Inc., of New Hyde Park, NY using direct push drilling technology under the direction of TRC. A cement coring machine was utilized to drill through the surface asphalt and concrete at each location prior to advancing the soil borings. Soil samples were collected continuously beginning at grade by driving 1-3/8" diameter steel rods fitted with a four-foot long Macro-Core® (MC) sampler to depths ranging from 2 to 12-feet below grade (ftbg). Each MC sampler was fitted with a new disposable acetate liner to ensure sample integrity. Following sample collection, each boring was backfilled with excess cutting and allowed to collapse naturally. Each boring was capped with asphalt or concrete at the surface as appropriate. At locations where soil borings were advanced below the inferred water table the boring was packed with hydrated bentonite chips to approximately two feet above the water table. Upon retrieval of the MC samplers, soils were characterized, logged and field screened for organic vapors with a photoionization detector (PID) equipped with a 10.6 eV ionization lamp and calibrated to an isobutylene standard. Field screening results of the soil samples are presented on the boring logs.

3.3.2 Soil Sampling and Laboratory Analyses

A shallow soil sample was collected from each soil boring immediately below the asphalt/concrete and associated subbase materials. Subsurface soil samples were collected from

soil borings B-35 and B-38 at the ground water interface where field observations and PID screening indicated the presence of potential petroleum impacts. Soil samples were submitted to Chemtech Laboratory of Mountainside, New Jersey under chain of custody (COC) documentation for the following analyses:

- Target Compound List (TCL) volatile organic compounds (VOCs) by EPA Method 8260;
- TCL semi-volatile organic compounds (SVOCs) by EPA Method 8270; and
- Target Analyte List (TAL) metals by EPA Methods 6010/7471.

The two soil samples from borings B-27 and B-28 completed proximate to a former and active electrical transformer building, respectively, were also analyzed for polychlorinated biphenyls (PCBs) by EPA Method 8082.

3.4 Land Survey

Site-Blauvelt of New York City performed land surveying activities at the site on November 2003 for TRC. Each supplemental site investigation location (e.g. geophysical survey area, test pit and soil boring) were surveyed for location and elevation.

4.0 RESULTS AND FINDINGS

The following section provides a discussion of the results and findings of the supplemental geophysical survey investigation, test pit investigation and soil boring program. Soil sample analytical data is compared to New York State Department of Environmental Conservation (NYSDEC) TAGM Soil Clean-up Guidelines.

4.1 Geophysical Survey Results

A total of eleven anomalous areas where identified within the five survey areas during the geophysical surveys. The initial interpretation of the data included six unknown anomalies, two inferred as buried metal, three inferred underground utility lines or pipes and an inferred foundation wall. A summary of the geophysical anomalies and test pit findings is provided as Table 1. The geophysical survey report is provided as Appendix C.

4.2 Test Pit Investigation Results

Ten test pits were excavated at five survey areas (areas where Sanborn Maps indicated the prior existence of USTs) to explore identified geophysical anomalies. The location of each test pit in these areas is shown on Figure 2. A summary of the geophysical anomalies and test pits is provided as Table 1. Test pit logs are presented in Appendix B. In summary, no evidence of USTs, former UST vaults or appurtenances was observed at any of the survey areas. What was interpreted as a large concrete building floor slab was encountered at Area A. Underground utilities, a steel beam set in concrete at a depth of 3.5-ftbg, and a large concrete slab were observed at Area B. Another large concrete slab and a brick and concrete building foundation were encountered at Area C. Large concrete slabs were also observed at Areas D and E. The thickness of the concrete slabs prohibited further excavation below the slabs at most of the test pit locations. However, no piping penetrations or openings were observed in the slabs indicative of an underlying tank. Field screening results presented on the test pit logs did not indicate the presence of organic vapors at locations were test pits were advanced below asphalt and concrete. Based on the observed site conditions, no soil samples were collected for chemical testing during the test pit program.

4.3 Soil Boring and Soil Sampling Results

4.3.1 Soil Conditions

Soil borings indicated a varied soil profile throughout the site. In general, soils encounter during this boring program consisted of fine sands with varying percentages of gravel, silts and clay. Debris including crushed brick and concrete, slag, cinders, metal and glass were observed in the soils at many locations. All boring locations were covered with as much as 1.5-feet of concrete and/or asphalt except for boring B-32, advanced within the rail yard, where ballast was encountered. Petroleum-like odors were noted in borings B-35 through B-38 that were advanced inside the N Shed.

4.3.2 Organic Vapor Screening

As presented on the soil boring logs, field screening results indicate the presence of elevated organic vapors in soils at borings B-35 though B-38. These borings were completed inside the N Shed at locations where bulk oil storage ASTs were formerly located.

4.3.3 Soil Sampling Results

Volatile Organic Compounds

Low levels of toluene from 5.8 to 20 micrograms per kilogram (µg/Kg) were detected in four soil samples (B-33, B-35, B-38 (1-5), B-38 (8-9)) collected from soil borings located beneath and to the west of the N Shed. Toluene was also detected in nine soil samples at concentrations below the method detection limit. Low levels of m/p xylenes (6 µg/Kg) and methylene chloride (6.2 µg/Kg) were detected in soil samples B-33 and B-38 (1'-5'), respectively. Ethyl benzene, xylenes and methylene chloride were also detected in 13 0f 14 soil samples at concentrations below method detection limits. Detected and estimated VOC concentrations did not exceed applicable NYSDEC TAGM 4046 recommended soil clean-up objectives (RSCOs). A summary of soil sample analytical data is provided as Table 2.

Semivolatile Organic Compounds

Detectable concentrations of up to twelve individual SVOCs were reported in soil samples B-31, B-32, B-34, B-35 (1-3), B-35 (5-8), B-38 (1-5), B-38 (8-9). Benzo(a)anthracene concentrations exceeded TAGM RSCOs in five soils samples. Chrysene concentrations

exceeded TAGM RSCOs in four soil samples. Benzo(a)pyrene concentrations exceeded TAGM RSCOs in three soil samples. Several other SVOCs were also detected in soil samples at concentrations below method detection limits (estimated values). Several estimated SVOC concentrations exceeded applicable TAGM RSCOs. A summary of soil sample analytical data is provided as Table 2.

Metals

Twenty of twenty three target analyte list (TAL) metals were detected at concentrations above method detection limits in numerous soil samples collected at the site. Metals were also detected in numerous soil samples at concentrations below method detection limits (estimated values). Notable results are discussed below:

- Arsenic was detected at a concentration of 154 milligrams per kilograms (mg/Kg) in soil sample B-32 collected in the railroad yard. This concentration exceeds TAGM RSCOs and is well above New York State (NYS) background concentrations reported in TAGM 4046. Arsenic concentrations detected in soil samples B-28, B-35 (1-3), B-35 (5-8) and B-38 (1-5) also exceed TAGM RSCOs.

- Estimated beryllium concentrations in 12 of 14 soil samples exceeded TAGM RSCOs. Estimated concentrations were within Eastern US background concentrations reported in TAGM 4046.

- Chromium concentrations in 7 of 14 soil samples exceeded TAGM RSCOs but were within NYS background concentrations reported in TAGM 4046.

- Copper concentrations in 8 of 14 soil samples exceeded TAGM RSCOs. Six samples exceeded TAGM Eastern US background concentrations.

- Lead was detected in soil sample B-27 at 1,900 mg/kg. This concentration is above the lead concentrations detected in the other 13 soil samples collected at the site and TAGM Eastern US background concentrations.

- Mercury concentrations detected in 10 of 14 soil samples exceeded TAGM RSCOs. Six samples exceeded TAGM Eastern US background concentrations.

- Nickel concentrations detected in 10 of 14 soil samples exceeded TAGM RSCOs. The nickel concentration in soil sample B-31 exceeded the Eastern US background concentration for nickel reported in TAGM 4046.

- Zinc was detected in all 14 soil samples at concentrations above TAGM RSCOs. Zinc concentrations in 11 samples also exceeded TAGM Eastern US Background concentrations. A summary of soil sample analytical data is provided as Table 2.

PCBs

PCBs were detected in soil sample B-27 at a concentration of 0.014 mg/Kg, well below the TAGM RSCO of 1.0 mg/kg for PCBs in surface soils. A summary of soil sample analytical data is provided as Table 2.

5.0 SUMMARY AND RECOMMENDATIONS

TRC reviewed several reports obtained by TRC from the NYCDDC and reports on file at the NYSDEC. These reports document the excavation and removal of eight USTs, two ASTs and four hydraulic lifts from the SBMT property in 1998. Post excavation soil confirmation sampling indicates the existence of petroleum impacts in soil samples collected from the three tank graves located proximate to the 39th Street shed and N Shed. Subsequent assessment activities included the installation of numerous ground water monitoring wells and soil boring to delineate the extent of soil and ground water impacts. Soil analytical results from these activities indicate the presence of several gasoline related VOCs in soils in the vicinity of the former tank locations at concentrations below NYSDEC TAGM 4046 guidance values. Detected PAHs detected in soils from these areas were attributed to the urban fill present at the site. A no further action recommendation for site soils was approved by the NYSDEC in a letter dated October 21, 2003 (see Appendix A).

The 2002 ground water sampling results indicated the existence of gasoline related VOCs in ground water samples collected from two wells in excess of NYSDEC ground water quality criteria. An August 2003 ground water monitoring event (see Appendix A) indicated VOCs were not detected in monitoring well MW-B-04, and continued reduction of VOCs was observed in monitoring well MW-D-05. A December 2003 monitoring event (see Appendix A) indicated gasoline-related VOCs were not detected above NYSDEC Ground Water Quality Criteria in MW-D-05. However, several gasoline-related VOCs (ethyl benzene, xylenes, trimethyl-benzenes, and naphthalene) detected in a sample collected from MW-B-04 exceeded the criteria. Additional monitoring is reportedly being conducted until NYSDEC Ground Water Quality Criteria are achieved for two consecutive monitoring events.

During this investigation TRC observed several vent and fill pipes located next to an abandoned building and truck scales located proximate to the rail yard south east of the 39th Street shed. The presence of these UST appurtenances suggests the existence of several petroleum USTs at this location.

Based on field observations and the results of a geophysical investigation and subsequent test pit investigation conducted at five suspected UST locations, no evidence of the USTs was found. USTs were also not found during a 1998 geophysical investigation conducted by another consultant at similar and additional areas of the site.

Four soil borings were sampled within the N Shed in the suspected area of four former 160,000-gallon ASTs. Four shallow and two subsurface samples from the borings (B-35 (1'-3'), B-35 (5'-8'), B-36 (1'-4'), B-37(1'-4'), B-38 (1'-5'), B-38 (8'-9')) exhibited petroleum-like impacts, described by the STARS nuisance characteristic guidance. Several petroleum-related PAHs and metals were detected in these samples above TAGM Recommended Cleanup Objectives.

Two soil borings (B-33 and B-34) were installed around prior TRC soil boring B-10 where elevated VOC concentrations were observed in a soil sample collected at a depth of 8.5'-10.5' below grade. Organic vapor screening of soil samples collected from these soil borings at depths above the inferred ground water table (8-ftbg) did not indicate the presence of significant organic vapors or signs of petroleum impacts (staining or odors). The chemical testing results of two shallow soil samples indicated the presence of several petroleum related PAHs and metals at concentrations above TAGM Recommended Cleanup Objectives. Low levels of VOCs detected in these samples were well below TAGM Recommended Soil Cleanup Objectives.

Arsenic was detected (154 mg/kg) in soil sample B-32 which was collected from shallow soils within the rail yard. This reported concentration is well above TAGM Recommended Soil Cleanup Objectives and arsenic concentrations detected in other soil samples collected throughout the site. Furthermore, elevated arsenic levels in shallow soils and railroad ballast in rail yards is common due to chemical leaching of preserved railroad ties.

Zinc was detected in all 12 shallow soil samples and two subsurface soil samples collected throughout the site at concentrations above the TAGM Recommended Soil Cleanup Objectives. Based on the wide distribution of these soil samples across the site, the elevated zinc soil concentrations may be representative of general background zinc concentrations in the fill materials.

Based on the above findings, TRC recommends the following:

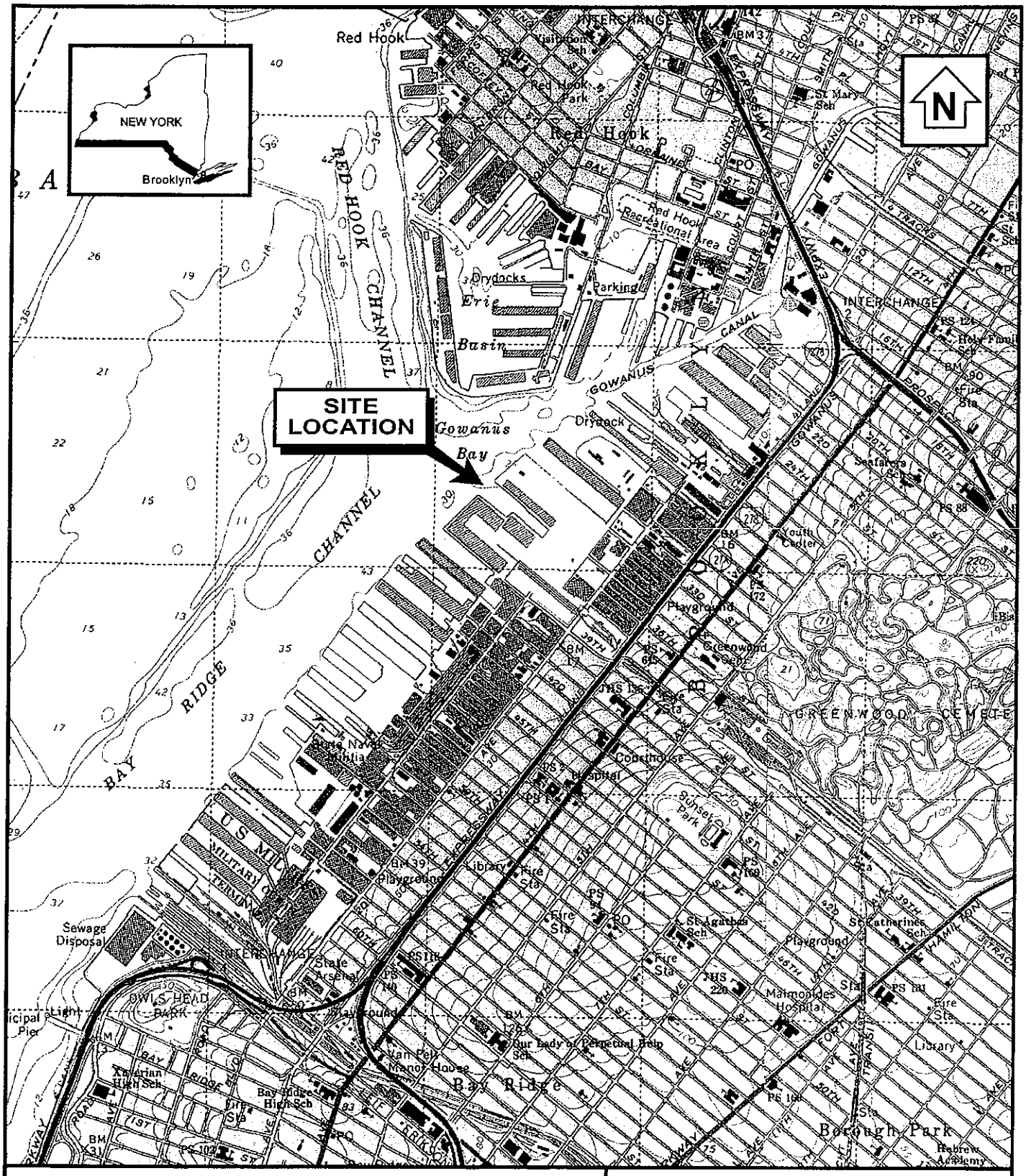
- Obtain any new quarterly ground water monitoring data from NYSDEC.
- Confirm the presence and status of petroleum USTs at the abandoned truck scale building proximate to the rail yard and remove inactive petroleum tanks in accordance with all applicable Federal, State and City regulations.
- Install several ground water monitoring wells in and around the N Shed and conduct ground water sampling and chemical testing of the new and selected existing

ground water monitoring wells to investigate ground water quality in this portion of the site.

- Collect additional soil samples from within the rail yard to further assess arsenic levels in shallow soils in this area. However, if this area will remain an active rail yard, the need for this sampling should be reevaluated.

- Plan and implement adequate safety precautions during future site development activities or utility repair activities to protect workers from unacceptable exposures to contaminants in soils and dusts and to assure proper testing, handling and, if appropriate, off site treatment/disposal of excavated excess soils or fill materials.

FIGURES



0 2000
SCALE FEET

0 1
SCALE MILE

1:24000

BASE CREATED WITH TOPO™ © 1996 WILDFLOWERS PRODUCTIONS, www.topo.com
JERSEY CITY, NJ-NY - 7.5' USGS TOPOGRAPHIC MAP

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SOUTH BROOKLYN MARINE TERMINAL
BROOKLYN, NEW YORK

FIGURE 1
SITE LOCATION MAP

Date: 04/04 | **Project No.** 31193-0210

HAZ/31193/31193-0210.FH10

TABLES

TABLE 1
SUMMARY OF GEOPHYSICAL ANOMALIES AND TEST PIT OBSERVATIONS
South Brooklyn Marine Terminal
Brooklyn, New York
New York City Economic Development Corporation

SURVEY LOCATION	GEOPHYSICAL ANOMALY	EM-61 INTERPRETATION	TEST PIT NUMBER	TEST PIT DIMENSIONS (feet)	OBSERVATIONS
Area A (NYPD Storage Lot - former NYC Highway/Sewer Department Garage)	1	unknown	TPA-1	10x8x0.5	Refusal at 0.5-ftbg concrete slab
			TPA-2	5x2.5x0.5	Refusal at 0.5-ftbg concrete slab (confirms presence of possible building floor slab)
Area B (South of N Shed - former NYC Transit Bus Garage)	1	utility or pipe	none	not completed	Anomaly corresponds to location of mapped underground utilities.
	2	burried metal	TPB-1	6x4x3.5	Unearthed steel beam or pile set in concrete at 3.5-ftbg
	3	unknown	TPB-2	15x2.5x0.75	Refusal at 0.75-ftbg concrete slab
Area C (Industry City Parking Lot - former NYC Department of Purchase Warehouse)	1& 2	burried metal	TPC-1	15x6x3.5	Encountered 2 sides of brick and concrete foundation. Foundation filled with sand.
	3	utility or pipe	TPC-2	5x3x1	Refusal at 1-ftbg concrete slab (building floor slab ?)
Area D (Dealer Storage Lot - former lift truck garage & machine shop)	1	unknown	TPD-1	6x3x0.5	Refusal at 0.5-ftbg concrete slab
Area E (Industry City Parking Lot - former NYC Department of Purchase Warehouse)	1	unknown	TPE-1	5x2.5x0.3	Refusal at 0.3-ftbg concrete slab
	2	unknown	TPE-2	18x3x0.3	Refusal at 0.3-ftbg concrete slab (building floor slab ?)
	3	unknown	TPE-3	3x2.5x0.3	Anomaly corresponds to line of steel H beams exposed above asphalt. Beams set into concrete slab.

Notes:
ftbg - feet below grade

Table 2
Summary of Soil Analytical Data
South Brooklyn Marine Terminal
Brooklyn, New York
New York City Economic Development Corporation

Sample Designation:	B-27	B-28	B-29	B-30	B-31	B-32	B-33	B-34	B-35	B-35	B-36	B-37	B-38	B-38	B-40*	RECOMMENDED	TAGM SOIL CLEANUP	TAGM SOIL CLEANUP
Collection Date:	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	CLEANUP OBJECTIVE	PROTECT GW	HUMAN HEALTH
Depth (ftbg):	0-2	0-2	1-3	1-5	1-4	0-2	1.5-5.5	0.5-1.5	1-3	5-8	1-4	1-4	1-5	8-9	1-4	(ppb)	(ppb)	(ppb)
TCL VOCs (8260) (ug/kg)																		
Methylene Chloride	4.6 J	3.7 J	4.0 J	<1.4 U	4.2 J	4.2 J	12 J	5.2 J	9.1 J	<1.4 U	3.6 J	4.0 J	4.4 J	6.2	8.9	100	100	93,000
Toluene	2.6 J	<1.2 U	3.0 J	2.5 J	<1.2 U	4.8 J	19	4.2 J	20	1.4 J	5.9 J	2.6 J	5.8	8.9	4.9 J	1,500	1,500	2.E+07
Ethyl Benzene	<1.2 U	<1.1 U	<1.1 U	<<1.1 U	<1.1 U	<1.1 U	1.4 J	<1.2 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	1.2 J	<1.1 U	5,500	5,500	8.E+06
m/p - Xylenes	<3.3 J	5.1 J	<3.1 U	<3.0 J	<3.1 U	<3.2 U	6.0	<3.3 U	<3.2 U	<3.1 U	3.6 J	<3.1 U	<3.1 U	<3.1 U	4.8 J	NE	NE	NE
o - Xylene	<1.3 J	1.3 J	<1.2 U	<1.2 J	<1.2 U	<1.2 U	1.4 J	<1.3 U	2.8 J	<1.2 U	<1.2 U	<1.2 U	<1.2 U	2.7 J	2.0 J	NE	NE	NE
Total Xylenes	–	6.4	–	–	–	–	6.0	–	2.8	–	3.6	–	–	3	6.8	1,200	1,200	2.E+08
Total VOCs	7.2	10.1	7	2.5	4.2	9	39.8	9.4	31.9	1.4	13.1	6.6	10.2	19	20.6			
TCL SVOCs (8270) (ug/kg)																		
Naphthalene	<230 U	<44 U	<430 U	<410 U	64 J	<44 U	<44 U	<46 U	<44 U	<43 U	<43 U	<44 U	<43 U	550	89 J	13,000	13,000	300,000
2-Methylnaphthalene	<230 U	<44 U	<430 U	<410 U	<43 U	<44 U	<44 U	<46 U	540	<43 U	260 J	<44 U	<43 U	3,900 D	110 J	36,400	36,400	NE
Acenaphthylene	<230 U	<44 U	<430 U	<410 U	<43 U	150 J	<44 U	<46 U	<44 U	<43 U	<43 U	<44 U	<43 U	<43 U	<42 U	41,000	41,000	NE
Acenaphthene	<230 U	<44 U	<430 U	<410 U	150 J	<44 U	<44 U	<46 U	290 J	<43 U	<43 U	<44 U	89 J	<43 U	<42 U	50,000	90,000	5,000,000
Dibenzofuran	<190 U	<37 U	<370 U	<350 U	130 J	<37 U	<37 U	<39 U	<37 U	<36 U	<36 U	<37 U	39 J	<36 U	<36 U	6,200	6,200	NE
Diethylphthalate	250 J	<37 U	510 J	520 J	<37 U	<37 U	<37 U	<39 U	<37 U	<36 U	<36 U	<37 U	<36 U	<36 U	<36 U	2,000	2,000	8.E+07
Fluorene	<210 U	<41 U	<400 U	<380 U	200 J	55 J	<41 U	<43 U	320 J	<40 U	<40 U	<41 U	92 J	1,100	<39 U	50,000	350,000	3,000,000
Phenanthrene	780 J	140 J	<370 U	<350 U	2,600	380	130 J	440	570	280 J	140 J	75 J	1,200	1,400	80 J	50,000	220,000	NE
Anthracene	<250 U	<48 U	<480 U	<450 U	450	400	<49 U	91 J	240 J	79 J	<47 U	<48 U	250 J	110 J	<46 U	50,000	700,000	2.E+07
Carbazole	<79 U	<15 U	<150 U	<140 U	240 J	120 J	<15 U	<16 U	<15 U	<15 U	<15 U	<15 U	100 J	<15 U	<15 U	0	0	0
Fluoranthene	1,400 J	220 J	<370 U	<350 U	2,900	1,400	220 J	500	340 J	740	75 J	160 J	1,900	100 J	49 J	50,000	1,900,000	3,000,000
Pyrene	1,700 J	270 J	<370 U	<350 U	2,400 D	1,700	340 J	470	820	810	150 J	160 J	1,900	350 J	78 J	50,000	665,000	2,000,000
Benzo(a)anthracene	1,000 J	160 J	<370 U	<350 U	1,200	830	170 J	490	230 J	410 J	49 J	98 J	1,000	84 J	<36 U	224 or MDL	3,000	224
Chrysene	870 J	150 J	<590 U	<560 U	1,000	890	150 J	470	230 J	360 J	<58 U	87 J	900	90 J	<57 U	400	400	NE
bis(2-Ethylhexyl)phthalate	<190 U	<37 U	<370 U	<350 U	180 J	100 J	<37 U	<39 U	<37 U	<36 U	320 J	<37 U	<36 U	78 J	<36 U	50,000	435,000	50,000
Benzo(b)fluoranthene	980 J	140 J	<370 U	<350 U	1,100	1,100	160 J	290 J	250 J	390	67 J	91 J	890	87 J	<36 U	1,100	1,100	NE
Benzo(k)fluoranthene	520 J	<96 U	<950 U	<900 U	550	430	<97 U	120 J	130 J	210 J	<94 U	<96 U	380	<94 U	<93 U	1,100	1,100	NE
Benzo(a)pyrene	900 J	120 J	<550 U	<520 U	960	630	100 J	290 J	210 J	340 J	<54 U	85 J	860	58 J	<54 U	61 or MDL	11,000	60.9
Indeno(1,2,3-cd)pyrene	450 J	91 J	<590 U	<560 U	620	390	97 J	150 J	120 J	240 J	<58 U	<59 U	490	<58 U	<57 U	3,200	3,200	NE
Dibenz(a,h)anthracene	<290 U	<56 U	<550 U	<520 U	170 J	120 J	<56 U	87 J	<56 U	68 J	<55 U	<56 U	130 J	<55 U	<54 U	14 or MDL	1.65E+08	14.3
Benzo(g,h,i)perylene	450 J	87 J	<480 U	<450 U	630	330 J	120 J	140 J	120 J	240 J	68 J	67 J	450	<47 U	<46 U	50,000	800,000	NE
Total SVOCs	9,300	1,378	510	520	15,544	9,025	1,487	3,538	4,410	4,165	1,129	823	10,670	7,907	406			

Notes:

* - B-40 is field duplicate of B-36 (1'-4')

<190 U - Indicates the compound was analyzed for but not detected at the reported detection limit.

J - Indicates an estimated value when the mass spectra data indicated the identification, however the result was less than the specified detection limit greater than zero.

(ftbg) = feet below grade

NE = None Established

Table 2
Summary of Soil Analytical Data
South Brooklyn Marine Terminal
Brooklyn, New York
New York City Economic Development Corporation

Sample Designation:	B-27	B-28	B-29	B-30	B-31	B-32	B-33	B-34	B-35	B-35	B-36	B-37	B-38	B-38	B-40*	TAGM RECOMMENDED CLEANUP OBJECTIVE	TAGM EASTERN US BACKGROUND	TAGM SOIL CLEANUP PROTECT GW
Collection Date:	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003	8/14/2003			
Depth (ftbg):	0-2	0-2	1-3	1-5	1-4	0-2	1.5-5.5	0.5-1.5	1-3	5-8	1-4	1-4	1-5	8-9	1-4			
TAL Metals (mg/kg)																		
Aluminum	3,720	3,400	1,580	1150	3,800 JN	3,630	3,950	5,460	3,630	4,120	2,960	5,620	3,870	3,190	2,690	SB	33,000	NE
Antimony	0.88 J	0.57 JN	0.40 JN	0.33 JN	1.5	10.3 N	1.1 JN	0.83 JN	6.2 JN	<0.22 UN	0.56 JN	0.34 JN	0.49 JN	1.60 JN	0.74 JN	SB	N/A	NE
Arsenic	6.2	9.7	6.1	5.2	3.3	154	3.8	5.3	16.8	9.4	7.0	2.9	8.4	3.2	6.4	7.5 or SB	3-12 **	NE
Barium	123	52.8	20.8 J	17.4 J	52.3	83.5	34.6	74.5	104	111	41.4	61.3	47.4	42.3	44.3	300 or SB	15-600	NE
Beryllium	0.31 J	0.30 J	<0.14 U	0.15 J	0.35 JN	0.28 J	0.32 J	0.40 J	0.32 J	0.30 J	0.28 J	0.40 J	0.32 J	0.22 J	0.28 J	0.16 or SB	0-1.75	NE
Cadmium	0.23 J	0.19 J	<0.13 U	<0.03 U	<0.13 U	0.75	0.45 J	0.25 J	<0.14 U	<0.13 U	<0.13 U	<0.13 U	<0.13 U	<0.13 U	<0.13 U	1 or SB	0.1-1	NE
Calcium	17,200	9,630	43,000	43,500	2380	2,770	1,190	11,200	4,100	8,160	863	4,330	3,320	1,890	896	SB	130-35,000	NE
Chromium	15	17.6 N	7.2 N	7.8 N	10.7 N	19.6 N	9.4 N	17.2 N	28.8 N	9.3 N	7.0 N	12.0 N	9.5 N	8.3 N	6.4 N	10 or SB	1.5-40**	NE
Cobalt	4.4 J	14.7	5.2 J	3.3 J	5.9	6.8	7.3	21.5	19.4	6.3	4.5 J	5.5 J	5.4 J	4.4 J	4.3 J	30 or SB	2.5-60**	NE
Copper	95 N	28.1 N	9.8 N	16.4 N	239 N	187 N	24.2 N	64.9 N	61.3 N	26.7 N	24.6 N	18.6 N	27.9 N	57.3 N	24.0 N	25 or SB	Jan-50	NE
Iron	7,680	9,420	4,750	5,280	9,440	40,200	8,710	13,100	44,600	16,000	7,830	10,400	11,200	9,960	6,530	2,000 or SB	2,000-550,000	NE
Lead	1,900 N	65.7 N	22.1 N	13.7 N	149 N	253 N	39.5 N	146 N	264 N	78.3 N	50.1 N	54.2 N	94.9 N	148.0 N	53.2 N	SB****	200-500****	NE
Magnesium	2,000	3,310	19,700	24,600	2,250	1,550	1,420	4,350	1,820	2,030	950	2,600	1,770	1,600	887	SB	100-5,000	NE
Manganese	119	145	107	87.4	248	293	83.9	191	207	257	78.8	226	215	77.9	67.7	SB	50-5,000	NE
Mercury	0.50 N	0.11 N	0.02 N	0.02 N	0.02 N	0.28 N	0.55 N	0.31 N	0.52 N	0.45 N	0.07 N	0.29 N	0.18 N	0.27 N	0.10 N	0.1	0.001-0.2	NE
Nickel	17.1	14.8	7.8	8.5	25.4	21.1	12.3	15.8	24.7	14.9	12.2 J	20.9	13.5	14.2	10.6	13 or SB	0.5-25	NE
Potassium	757	537 J	423 J	395 J	744	286 J	544 J	1,320	808	570	339 J	883	630	721	384 J	SB	8,500-43,000**	NE
Selenium	1.2	0.75	0.47 U	0.66	<0.46 U	1.6	<0.48 U	0.59	1.3	0.49 J	0.9	<0.47 U	<0.46 U	0.89 U	0.93 U	2 or SB	0.1-3.9	NE
Silver	<0.32 U	1.7	0.33 J	<0.29 U	<0.30 U	0.56 J	0.53 J	1.8	1.8	0.32 J	<0.3 U	<0.30 U	<0.30 U	<0.30 U	<0.29 U	SB	N/A	NE
Sodium	277 J	128 J	124 J	157 J	112 J	114 U	179 J	297 J	215 J	151 J	<110 U	430 J	327 J	329 J	108 U	SB	6,000-8,000	NE
Thallium	<0.37 U	<0.35 U	<0.35 U	<0.33 U	<0.34 U	<0.35 U	<0.36 U	<0.37 U	<0.35 U	<0.35 U	<0.34 U	<0.35 U	<0.35 U	<0.34 U	<0.35 U	SB	N/A	NE
Vanadium	11.8	15.4	8.7	8.7	21.1	39.0	14.0	23.4	20.8	15.9	14.2	18.2	16.6	14.2	12.9	150 or SB	1-300	NE
Zinc	139	109	38.5	34.4	232	200	206	187	270	76.7	53.3	46.8	83.3	78.5	47.4	20 or SB	1-50	NE
PCBs (8082) (mg/kg)																		
Aroclor 1260	0.014	<2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	NE
Total PCBs	0.014	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1/10***	N/A	10

NOTES:
(ftbg) - feet below grade
NA - Not Analyzed
NE = None Established
Bold sample concentration indicates value exceeds guidance or criteria.
D - Indicates all compounds identified in an analysis at a secondary dilution factor.
P - Indicates that there is a >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported.
* - B-40 is field duplicate of B-36 (1'-4')
** - New York State background
*** - surface/subsurface soil
**** - Background concentrations for lead vary widely. Average levels in undeveloped rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200 - 500 ppm.
<190 U - indicates the compound was analyzed for but not detected at the reported detection limit.
J - Indicates an estimated value when the mass spectra data indicated the identification, however the result was less than the specified detection limit greater than zero.
N - Presumptive evidence of a compound

APPENDICES

APPENDIX A

HISTORIC SITE ASSESSMENT INFORMATION

Ballard Engineering Consulting, PC
(Design Subconsultant)

Valid Construction Services, Inc.
(Construction Manager)

Prepared For:

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION (DDC)
Division of Structures
Transportation Program Unit

DDC Project Name:

Upgrading, Replacement, or Decommissioning of Petroleum Product Storage Tanks

Project #: PW348-05 Contract #: 9454727

PRE-DESIGN INVESTIGATION

for

Site #38 - Brooklyn Marine Terminal
Foot of 29th to 39th Streets and Gowanus Bay
Brooklyn, New York

October 13, 1997

36 Woodglen Avenue, New City, New York 10956 Phone (914) 634-8708 Fax (914) 639-9684

The three 4,000-gallon USTs located on the south side of the maintenance shop were installed in 1979 (Area B, Figure 3). These USTs were originally designed to store gasoline. These USTs all passed the initial tightness tests in 1979. There are no records regarding the 10-year tightness test for these three USTs.

The aforementioned USTs found in the NYCFD records are summarized in the table below.

Table 1: NYCFD Records Search Results Summary

No. of Tanks	Capacity (gallons)	Product Stored	Year of Installation	Location					
				UST	AST	Inside	Outside	Area	Address
2	550	Gasoline	1964	X			X	A	Foot of 39th St.
2	4,000	Diesel	1973	X			X	D	Foot of 39th St.
3	4,000	Gasoline	1979	X			X	B	Foot of 39th St.

The most recent record in the file was a NYCFD Violation Order issued to the NYC Economic Development Corporation in 1992 requesting that the owner seal the remaining five USTs. The NYCFD records did not indicate if this was ever done.

3.1.2 New York City Department of Buildings (DOB)

The DOB records for Block 662, Lot 1 indicated that the property extended from 29th Street in the north to 39th Street in the south and from Gowanus Bay in the west to Second Avenue in the east. The operations at the properties involved mainly consisted of shipping companies and train yards.

The review of the records from the DOB revealed permits for the installation of 24 petroleum storage tanks between the foot of 29th and 35th Streets. These tanks ranged in capacity from 550 gallons to 28,000 gallons. The DOB records do not include the USTs described in the NYCFD records. Following is a table summarizing the petroleum storage tanks described in the DOB records and the corresponding areas on Figure 3. A copy of the tank records are provided in Appendix B.

Table 2: DOB Records Search Results Summary*

No. of Tanks	Capacity (gallons)	Product Stored	Year of Installation	Location					
				UST	AST	Inside	Outside	Area	Address
1	550	Gasoline	1935					L	472/490 2nd Ave.
2	550	Gasoline	1935	X				K	Foot of 29th St.**
1	3,000	Fuel Oil	1929	X			X	I	NWC 2nd Ave. & 32nd St.
6	4,000	Lube Oil	1946		X	X		G	1st Ave. Bet. 33rd & 35th
1	5,000	Fuel Oil	1936					H	NWC 2nd Ave. & 35th St.
1	15,000	Fuel Oil	1929					I	512/532 2nd Ave.
12	28,000	Fuel Oil	1946		X	X		G	1st Ave. Bet. 33rd & 35th

*The lines with no information indicates that there is no record

**Also evidence of oil/water separator

3.1.3 New York State Department of Environmental Conservation (NYSDEC)

Information regarding petroleum bulk storage (PBS) records and spills have not yet been received.

3.1.4 Sanborn Maps

Historical Sanborn Maps for this site were obtained from 1888, 1906, 1926, 1951, 1978, 1980, 1991, 1992, 1993 and 1995. A review of these maps for areas of petroleum bulk storage was performed.

In the southern end of the site, between 39th and 38th Streets, there was a petroleum bulk storage area owned by the New York City Transit System shown only on the 1951 map. This bulk storage area included a diesel filling station, four 160,000 gallon above ground storage tanks, two for diesel fuel and two for fuel oil including concrete retaining walls surrounding each tank. To the west of the bulk storage area are two fenced areas, one for steel drums and another for oil storage. To the southwest of this bulk storage area along the New York Bay (also referred to as the Gowanus Bay) was the New York Fire Engine Company No.223 which had an oil room. There was additional oil storage to the west of the bulk facility. The bulk storage area and the New York Fire Engine Company have since been removed and correspond to the current location of the north wing of the 39th Street Pier Shed.

To the east of this oil storage area was a bus garage where two gasoline tanks were apparently located (Area E, Figure 3). Also to the east of the bulk facility there was a gasoline tank associated with a facility owned by Moore McCormack Lines, apparently not used by 1951 according to the Sanborn Map (Area F, Figure 3). A copy of the 1951 Sanborn Map is provided in Appendix C.

Ballard Engineering Consulting, PC

(Design Subconsultant)

Valid Construction Services, Inc.

(Construction Manager)

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION

Division of Structures

Transportation Program Unit

Project Identification

Project No. PW348-05 Contract No. 9454727

Upgrading, Replacement, or Decommissioning

of Petroleum Product Storage Tanks

Site Specific Investigation Plan

Site No. 38

Brooklyn Marine Terminal

Foot of 29th to 39th Streets & Gowanus Bay

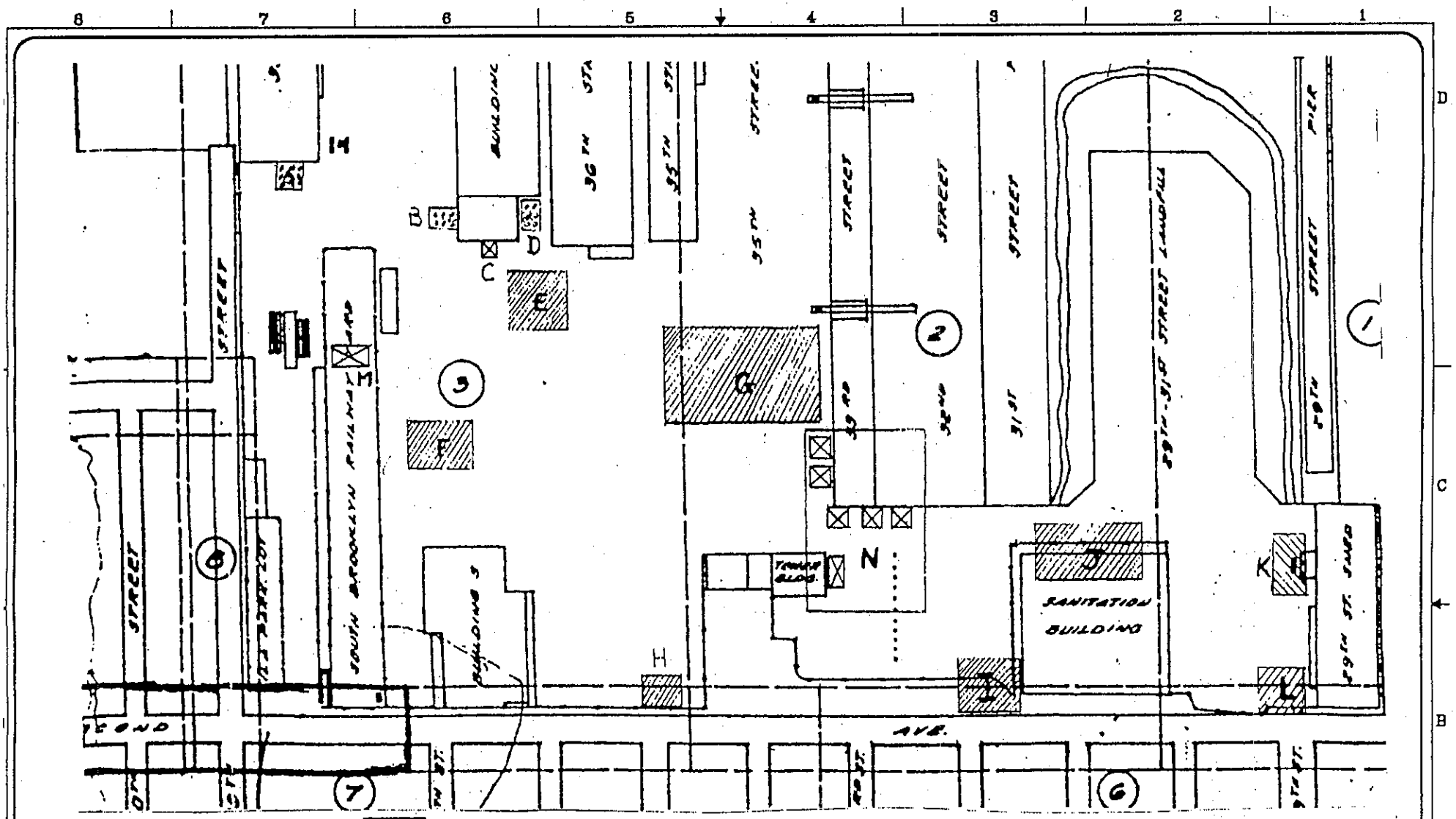
Brooklyn, New York

NYSDEC Spill No's. 97-14187 (Area A); 97-14188 (Area B);

97-14189 (Area C); and 97-14190 (Area D)

July 17, 1998

36 Woodglen Drive New City, New York 10956 Phone (914) 634-8708 Fax (914) 639-9684



LOCATION OF ASTS

LOCATIONS OF USTS

LOCATIONS WHERE GEOPHYSICAL SURVEY WAS PERFORMED (AREAS E–L)

BLOCK– 662
LOT – 1

NO.	BY	ZONE	REVISION HISTORY DESCRIPTION	DATE	APPROVED

BALLARD ENGINEERING, P.C.

36 WOODGLEN Dr.
NEW CITY, NY 10956
(914)-634-8796/FAX (914)-639-9654

TITLE:
GENERAL SITE PLAN

BROOKLYN MARINE TERMINAL
FOOT OF 29TH TO 39TH STREETS &
GOWANUS BAY
BROOKLYN, NEW YORK

DRAWN BY	AC
CHECKED BY	WB
APPROVED BY	
JOB NO.	96-84-002
DWG. NO.	
SCALE	
DATE CODE	
SIZE	D

FIG–2

TABLE NO. 2
SUMMARY OF POST-EXCAVTION SOILS ANALYTICAL RESULTS FOR AREA "A"
DDC SITE NO. 38 - BROOKLYN MARINE TERMINAL
FOOT OF 29TH TO 39TH STREETS & GOWANUS BAY, BROOKLYN, NEW YORK

Sample ID:	PE-A-1	PE-A-2	PE-A-3	PE-A-4	PE-A-5	PE-A-6	TRIP BLANK	
Sample Depth (ft.):	6.0 ft.	6.0 ft.	6.0 ft.	6.0 ft.	6.0 ft.	6.0 ft.	——	NYSDE
Sample Date:	3/20/98	3/20/98	3/20/98	3/20/98	3/20/98	3/20/98	3/20/98	AGV*
Volatile Organic Compounds by EPA Method 8021:								
Benzene	ND	ND	ND	ND	ND	ND	ND	14
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	100
Toluene	ND	40	46	39	ND	ND	ND	100
o-Xylene	ND	ND	ND	130	ND	ND	ND	100
p- & m- Xylene	ND	ND	ND	180	ND	ND	ND	100
Total Xylenes	ND	ND	ND	310	ND	ND	ND	100
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	100
n-Propylbenzene	ND	17	ND	29	ND	26	ND	100
p-Isopropyltoluene	ND	42	ND	ND	ND	ND	ND	100
1,2,4-Trimethylbenzene	ND	230	ND	620	24	260	ND	100
1,3,5-Trimethylbenzene	ND	160	ND	310	65	370	ND	100
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	100
sec-Butylbenzene	ND	ND	ND	ND	ND	26	ND	100
Naphthalene	ND	240	830	260	ND	170	ND	200
Methyl Tert-Butyl Ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	1,000
Total VOCs	ND	729	876	1,878	89	852	ND	NA
All VOC results expressed in microgram per kilogram (ug/kg)								
Base Neutral Compounds (BNs) by EPA Method 8270:								
Naphthalene	160 J	110 J	75 J	750	400	1,400	NA	200
Anthracene	ND	210 J	77 J	ND	ND	410	NA	1,000
Fluorene	ND	110 J	67 J	ND	ND	300J	NA	1,000
Phenanthrene	26 J	1,200	380	110 J	ND	1,700	NA	1,000
Pyrene	ND	1,700	340	ND	ND	2,300	NA	1,000
Acenaphthene	ND	54 J	37 J	ND	ND	290 J	NA	400
Benzo(a)anthracene	27 J	700	130 J	ND	60 J	550	NA	0.4
Fluoranthene	ND	1,700	280 J	ND	ND	1,300	NA	1,000
Benzo(b)fluoranthene	ND	200 J	ND	ND	ND	180 J	NA	0.4
Benzo(k)fluoranthene	ND	300 J	ND	ND	ND	270 J	NA	0.4
Chrysene	ND	820	130 J	ND	67 J	610	NA	0.4
Benzo(a)pyrene	ND	700	ND	ND	ND	590	NA	0.4
Benzo(g,h,i)perylene	ND	150 J	ND	ND	ND	ND	NA	0.4
Indeno(1,2,3-cd)pyrene	ND	190 J	ND	ND	ND	ND	NA	0.4
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	NA	1,000
Total BNs:	ND	6,820	720	750	400	8,860	NA	NA
All BN results expressed in microgram per kilogram (ug/kg)								
Total Lead by EPA Method 6010:	20.5	261.0	54.5	61.2	64.1	111.0	NA	^200-500
All Lead results expressed in milligram per kilogram (mg/kg)								

Notes:

*As outlined in NYSDEC "STARS Memo #1 - Petroleum Contaminated Soil Guidance Policy" (August,1992).

^ As outlined in NYSDEC "Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels" (HWR-94-4046) Revised January, 1994.

Concentration exceeds NYSDEC Guidance Value.

B=Compound detected in laboratory method blank

MDL = Method Detection Limit.

ND=Not Detected

NA=Not Applicable

J = Compound detected in sample at concentration less than the MDL (an estimated concentration).

TABLE NO. 3
SUMMARY OF POST-EXCAVTION SOILS ANALYTICAL RESULTS FOR AREA "B"
DDC SITE NO. 38 - BROOKLYN MARINE TERMINAL
FOOT OF 29TH TO 39TH STREETS & GOWANUS BAY, BROOKLYN, NEW YORK

Sample ID:	PE-B-1	PE-B-2	PE-B-3	PE-B-4	PE-B-5	PE-WO-B-1	PE-WO-B-2	
Sample Depth (ft.):	7.5 ft.	7.5 ft.	7.5 ft.	7.5 ft.	1 ft.	7.5 ft.	7.5 ft.	NYSDE(
Sample Date:	3/19/98	3/19/98	3/19/98	3/19/98	3/25/98	3/24/98	3/24/98	AGV*
Volatile Organic Compounds								
by EPA Method 8021:								
Benzene	ND	ND	ND	ND	ND	ND	ND	14
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	100
Toluene	ND	ND	ND	ND	ND	26	ND	100
o-Xylene	ND	ND	ND	ND	ND	ND	ND	100
p- & m- Xylene	ND	ND	ND	ND	ND	ND	ND	100
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	100
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	100
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	100
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	100
1,2,4-Trimethylbenzene	ND	ND	ND	ND	53	16	ND	100
1,3,5-Trimethylbenzene	ND	ND	ND	20	16	ND	ND	100
n-Butylbenzene	ND	ND	ND	ND	38	ND	ND	100
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	100
Naphthalene	ND	ND	ND	ND	240	ND	ND	200
Methyl Tert-Butyl Ether (MTBE)	ND	ND	ND	ND	ND	470	180	1,000
Total VOCs	**ND**	**ND**	**ND**	**20**	**347**	**512**	**180**	NA
All VOC results expressed in microgram per kilogram (ug/kg)								
Base Neutral Compounds								
(BNs) by EPA Method 8270:								
Naphthalene	51 J	ND	26 J	31 J	41 J	120 J	32 J	200
Anthracene	ND	ND	50 J	ND	27 J	1,700	100 J	1,000
Fluorene	ND	ND	28 J	ND	ND	850	41 J	1,000
Phenanthrene	ND	ND	500	ND	97 J	4,100	470	1,000
Pyrene	ND	ND	560	230 J	78 J	3,100	620	1,000
Acenaphthene	ND	ND	39 J	ND	ND	600	73 J	400
Benzo(a)anthracene	ND	75 J	190 J	93 J	46 J	2,100	250 J	0.4
Fluoranthene	ND	ND	470	190 J	100 J	3,600	760	1,000
Benzo(b)fluoranthene	ND	ND	90 J	ND	45 J	1,000	200 J	0.4
Benzo(k)fluoranthene	ND	ND	82 J	ND	60 J	1,300	110 J	0.4
Chrysene	ND	63 J	260 J	100 J	59 J	2,200	310 J	0.4
Benzo(a)pyrene	ND	73 J	210 J	ND	73 J	1,800	320 J	0.4
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	300 J	ND	0.4
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	350	ND	0.4
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	120 J	ND	1,000
Total BNs:	**ND**	**ND**	**1,530**	**ND**	**ND**	**22,700**	**1,850**	NA
All BN results expressed in microgram per kilogram (ug/kg)								
Total Lead by EPA Method								^200-
6010:	15.2	7.44	73.1	10.5	99.7	124	130	500
All Lead results expressed in milligram per kilogram (mg/kg)								

Notes:

*As outlined in NYSDEC "STARS Memo #1 - Petroleum Contaminated Soil Guidance Policy" (August,1992).

^ As outlined in NYSDEC "Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels" (HWR-94-4046) Revised January, 1994.

Concentration exceeds NYSDEC Guidance Value.

B=Compound detected in laboratory method blank

MDL = Method Detection Limit.

ND=Not Detected

NA=Not Applicable

J = Compound detected in sample at concentration less than the MDL (an estimated concentration).

TABLE NO. 3 (CON'T.)
SUMMARY OF POST-EXCAVTION SOILS ANALYTICAL RESULTS FOR AREA "B"
DDC SITE NO. 38 - BROOKLYN MARINE TERMINAL
FOOT OF 29TH TO 39TH STREETS & GOWANUS BAY, BROOKLYN, NEW YORK

Sample ID:	PE-WO-B-3	PE-B-HY-1	HYD2-0415	HYD3-0415	HYD4-0415	
Sample Depth (ft.):	7.5 ft.	7.5 ft.	7.5 ft.	7.5 ft.	7.5 ft.	NYSDEC
Sample Date:	3/24/98	3/31/98	4/15/98	4/15/98	4/15/98	AGV*
Volatile Organic Compounds						
by EPA Method 8021:						
Benzene	ND	ND	ND	ND	ND	14
Ethylbenzene	ND	ND	ND	ND	ND	100
Toluene	ND	ND	ND	ND	ND	100
o-Xylene	ND	ND	ND	ND	ND	100
p- & m- Xylene	ND	ND	ND	ND	ND	100
Total Xylenes	ND	ND	ND	ND	ND	100
Isopropylbenzene	ND	ND	ND	ND	ND	100
n-Propylbenzene	ND	ND	ND	ND	ND	100
p-Isopropyltoluene	ND	ND	ND	ND	ND	100
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	100
1,3,5-Trimethylbenzene	ND	ND	ND	ND	14	100
n-Butylbenzene	ND	ND	ND	ND	ND	100
sec-Butylbenzene	ND	ND	ND	ND	ND	100
Naphthalene	ND	ND	ND	ND	ND	200
Methyl Tert-Butyl Ether (MTBE)	ND	ND	ND	ND	ND	1,000
Total VOCs	**ND**	**ND**	**ND**	**ND**	**14**	NA
All VOC results expressed in microgram per kilogram (ug/kg)						
Base Neutral Compounds						
(BNs) by EPA Method 8270:						
Naphthalene	110 J	ND	500	70 J	21 J	200
Anthracene	950	ND	61 J	88 J	48 J	1,000
Fluorene	560	ND	190 J	22 J	11 J	1,000
Phenanthrene	2,800	ND	440	320	210 J	1,000
Pyrene	1,800	ND	340	780	380	1,000
Acenaphthene	520	ND	75 J	20 J	11 J	400
Benzo(a)anthracene	840	ND	190 J	450	200 J	0.4
Fluoranthene	2,500	ND	480	810	460	1,000
Benzo(b)fluoranthene	800	ND	82 J	550	96	0.4
Benzo(k)fluoranthene	600	ND	88 J	340	280	0.4
Chrysene	960	ND	230 J	570	270 J	0.4
Benzo(a)pyrene	730	ND	220 J	560	250 J	0.4
Benzo(g,h,i)perylene	150 J	ND	91 J	170 J	68 J	0.4
Indeno(1,2,3-cd)pyrene	180 J	ND	110 J	200 J	82 J	0.4
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	1,000
Total BNs:	**13,060**	**ND**	**1,760**	**4,380**	**1,216**	NA
All BN results expressed in microgram per kilogram (ug/kg)						
Total Lead by EPA Method						^200-
6010:	146	ND	NA	NA	NA	500
All Lead results expressed in milligram per kilogram (mg/kg)						

Notes:

*As outlined in NYSDEC "STARS Memo #1 - Petroleum Contaminated Soil Guidance Policy" (August,1992).

^ As outlined in NYSDEC "Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives & Cleanup Levels" (HWR-94-4046) Revised January, 1994.

Concentration exceeds NYSDEC Guidance Value. B=Compound detected in laboratory method blank

MDL = Method Detection Limit. ND=Not Detected NA=Not Applicable

J = Compound detected in sample at concentration less than the MDL (an estimated concentration).

TABLE NO. 4
SUMMARY OF POST-EXCAVTION SOILS ANALYTICAL RESULTS FOR PCB'S
DDC SITE NO. 38 - BROOKLYN MARINE TERMINAL
FOOT OF 29TH TO 39TH STREETS & GOWANUS BAY, BROOKLYN, NEW YORK

Sample ID:	PE-B-HY-1	HYD2-0415	HYD2-0415	HYD2-0415	
Sample Depth (ft.):	7.5 ft.	7.5 ft.	7.5 ft.	7.5 ft.	NYSDEC
Sample Date:	3/31/98	4/15/98	4/15/98	4/15/98	SCO*
PCB'S by EPA Method 8080:					
	ND	ND	ND	ND	10
PCB 1016	ND	ND	ND	ND	10
PCB 1221	ND	ND	ND	ND	10
PCB 1232	ND	ND	ND	ND	10
PCB1242	ND	ND	ND	ND	10
PCB1248	ND	ND	ND	ND	10
PCB 1254	ND	ND	ND	ND	10
PCB 1260	ND	ND	ND	ND	10

All Results Expressed in Milligram Per Kilogram (mg/kg)

Notes:

* As outlined in NYSDEC "Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels" (HWR-94-4046) Revised January, 1994.

▒ Concentration exceeds NYSDEC Guidance Value.

B=Compound detected in laboratory method blank

MDL = Method Detection Limit. NA = Not Applicable ND=Not Detected

J = Compound detected in sample at concentration less than the MDL (an estimated concentration).

TABLE NO. 5
SUMMARY OF POST-EXCAVTION SOILS ANALYTICAL RESULTS FOR AREA "D"
DDC SITE NO. 38 - BROOKLYN MARINE TERMINAL
FOOT OF 29TH TO 39TH STREETS & GOWANUS BAY, BROOKLYN, NEW YORK

Sample ID:	PE-D-1	PE-D-2	PE-D-3	PE-D-4	PE-D-5	PE-D-6	
Sample Depth (ft.):	7.5 ft.	7.5 ft.	7.5 ft.	7.5 ft.	7.5 ft.	7.5 ft.	NYSDEC
Sample Date:	3/24/98	3/24/98	3/24/98	3/24/98	3/25/98	3/25/98	AGV*
Volatile Organic Compounds							
by EPA Method 8021:							
Benzene	ND	ND	ND	ND	ND	ND	14
Ethylbenzene	ND	ND	ND	ND	ND	ND	100
Toluene	ND	ND	ND	ND	ND	ND	100
o-Xylene	ND	ND	ND	ND	ND	ND	100
p- & m- Xylene	ND	ND	ND	ND	ND	ND	100
Total Xylenes	ND	ND	ND	ND	ND	ND	100
Isopropylbenzene	ND	ND	ND	ND	ND	ND	100
n-Propylbenzene	ND	ND	ND	41	ND	ND	100
p-Isopropyltoluene	ND	ND	ND	28	180	ND	100
1,2,4-Trimethylbenzene	ND	ND	ND	74	300	ND	100
1,3,5-Trimethylbenzene	ND	ND	ND	100	200	ND	100
n-Butylbenzene	ND	ND	ND	150	33	ND	100
sec-Butylbenzene	ND	ND	ND	94	61	ND	100
Naphthalene	ND	ND	ND	38	36	ND	200
Methyl Tert-Butyl Ether (MTBE)	25	ND	ND	ND	ND	ND	1,000
Total VOCs	**25**	**ND**	**ND**	**525**	**810**	**ND**	NA
All VOC results expressed in microgram per kilogram (ug/kg)							
Base Neutral Compounds							
(BNs) by EPA Method 8270:							
Naphthalene	110 J	ND	100 J	380	1,400	54 J	200
Anthracene	ND	ND	49 J	ND	70 J	ND	1,000
Fluorene	130 J	ND	81 J	110 J	820	ND	1,000
Phenanthrene	180 J	50 J	230 J	150 J	1,200	44 J	1,000
Pyrene	81 J	58 J	240 J	34 J	ND	21 J	1,000
Acenaphthene	59 J	ND	44 J	39 J	290 J	ND	400
Benzo(a)anthracene	31 J	ND	110 J	ND	75 J	ND	0.4
Fluoranthene	94 J	61 J	340	42 J	310 J	ND	1,000
Benzo(b)fluoranthene	ND	ND	130 J	ND	40 J	ND	0.4
Benzo(k)fluoranthene	ND	ND	87 J	ND	35 J	ND	0.4
Chrysene	42 J	ND	150 J	18 J	110 J	ND	0.4
Benzo(a)pyrene	ND	ND	130 J	ND	78 J	ND	0.4
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	0.4
Indeno(1,2,3-cd)pyrene	ND	ND	61 J	ND	ND	ND	0.4
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	1,000
Total BNs:	**ND**	**ND**	**340**	**380**	**3,420**	**ND**	NA
All BN results expressed in microgram per kilogram (ug/kg)							
Total Lead by EPA Method							^ 200-
6010:	240	204	118	1,480	128	119	500
All Lead results expressed in milligram per kilogram (mg/kg)							

Notes:

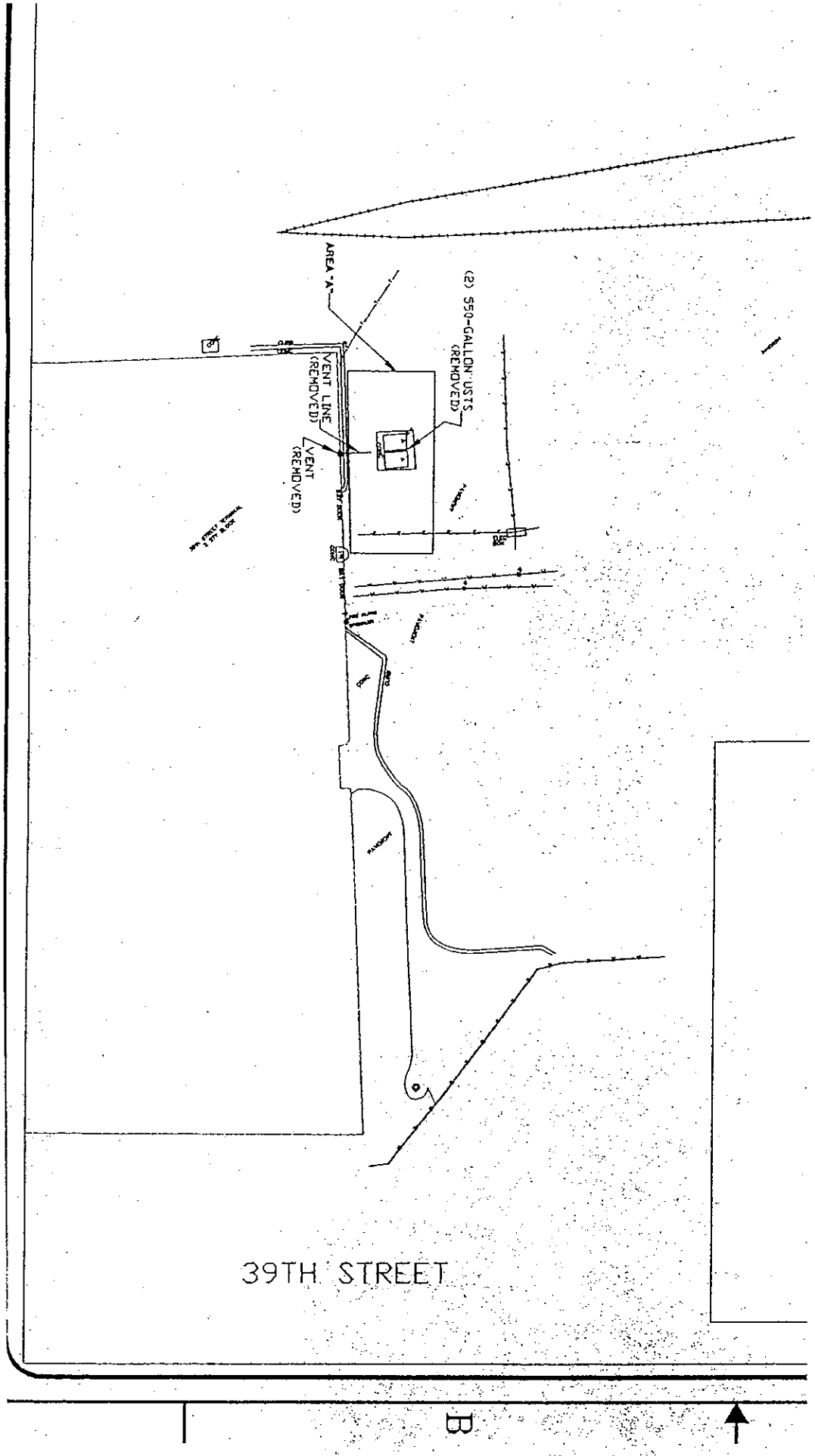
*As outlined in NYSDEC "STARS Memo #1 - Petroleum Contaminated Soil Guidance Policy" (August,1992).

^ As outlined in NYSDEC "Technical & Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels" (HWR-94-4046) Revised January, 1994.

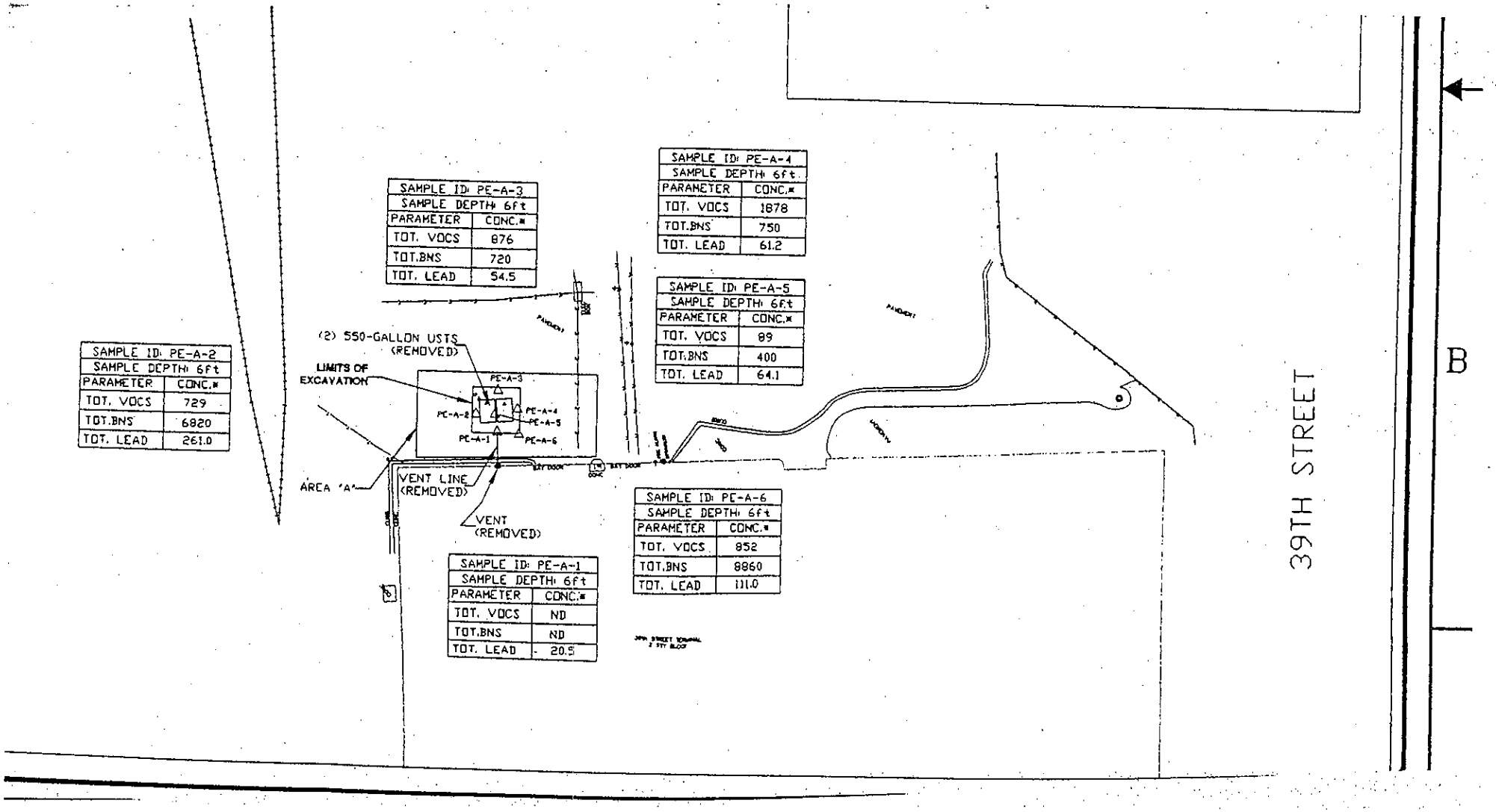
Concentration exceeds NYSDEC Guidance Value. B=Compound detected in laboratory method blank

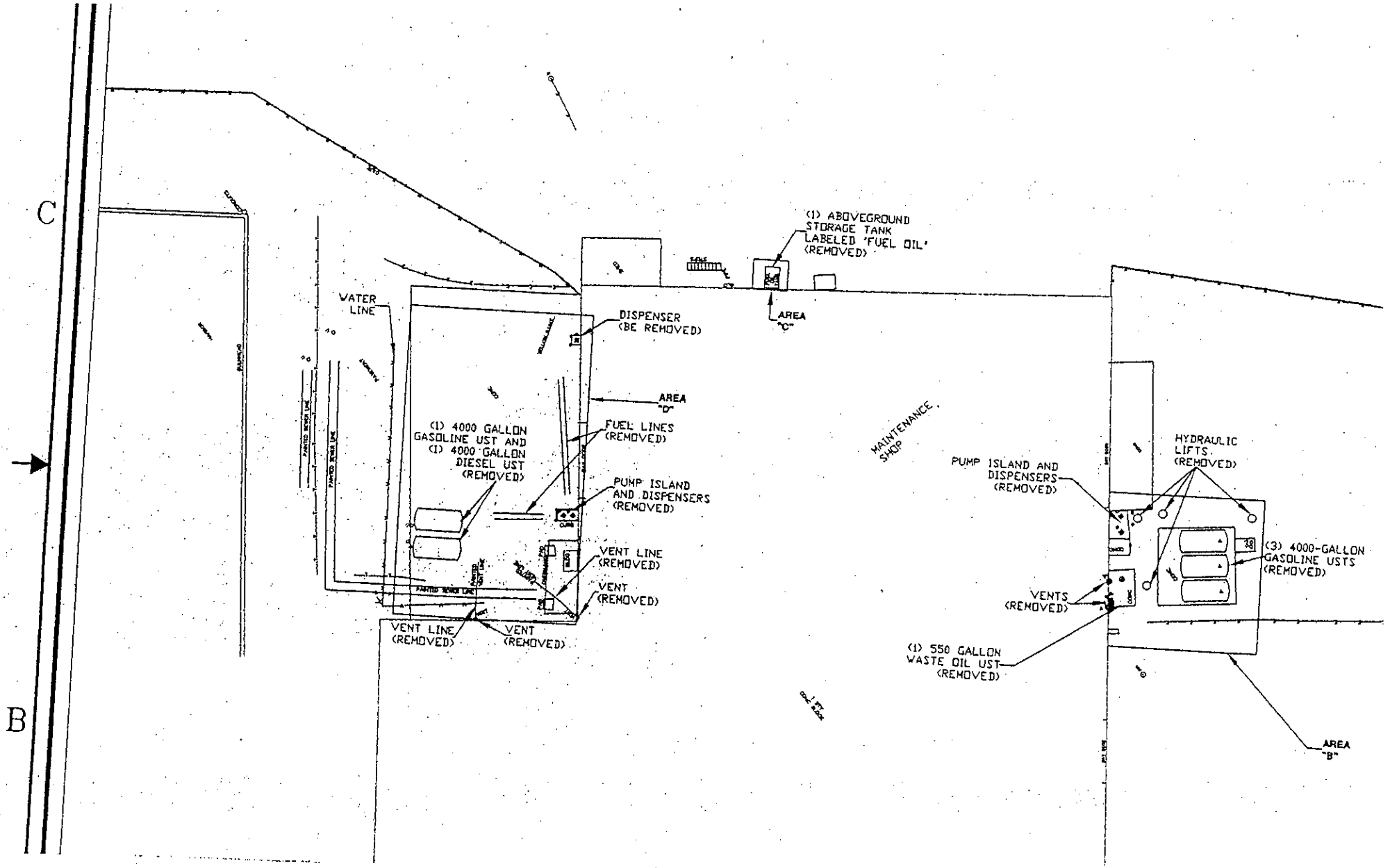
MDL = Method Detection Limit. ND=Not Detected NA=Not Applicable

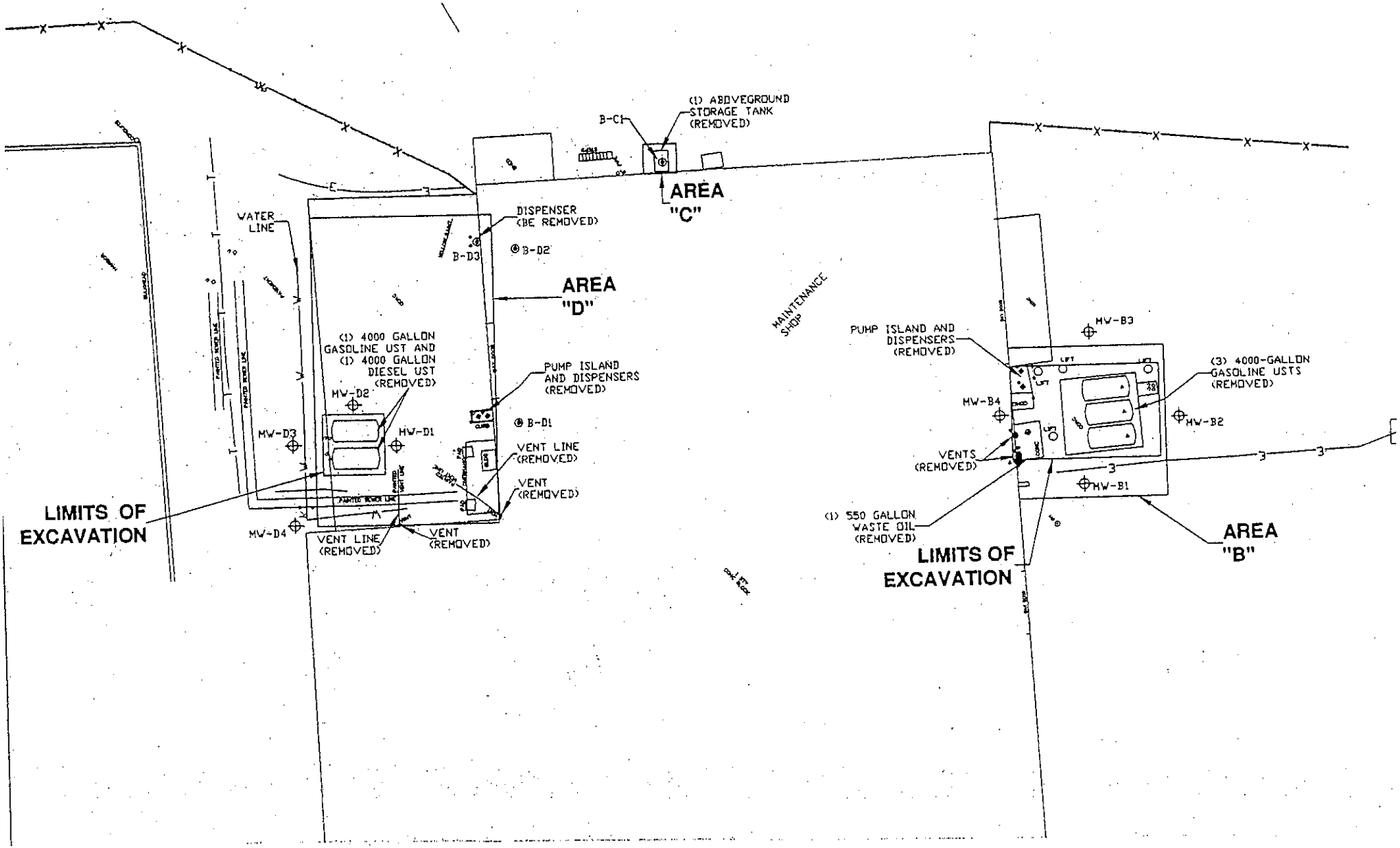
J = Compound detected in sample at concentration less than the MDL (an estimated concentration).

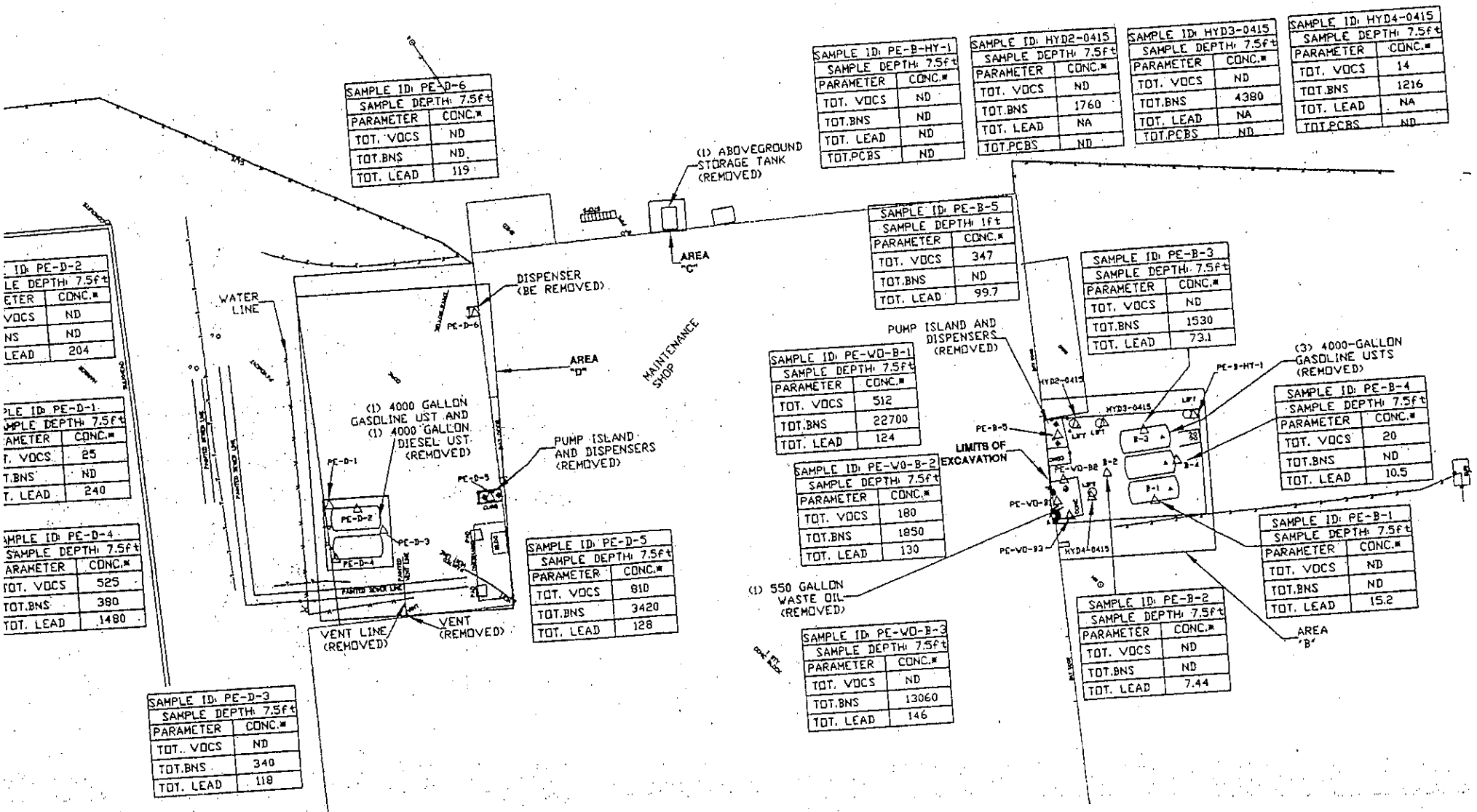

AREA "A"
(2) 550-GALLON USTS (REMOVED)
VENT LINE (REMOVED)
VENT (REMOVED)
39TH STREET
B

AREA "A"
(2) 550-GALLON USTS (REMOVED)
VENT LINE (REMOVED)
VENT (REMOVED)
MW-A3
MW-A5
MW-A2
MW-A1
LIMITS OF EXCAVATION
MW-A4
39TH STREET
B


SAMPLE ID: PE-A-2
SAMPLE DEPTH: 6ft
PARAMETER | CONC.*
TOT. VOCS | 729
TOT.BNS | 6820
TOT. LEAD | 261.0
SAMPLE ID: PE-A-3
SAMPLE DEPTH: 6ft
PARAMETER | CONC.*
TOT. VOCS | 876
TOT.BNS | 720
TOT. LEAD | 54.5
SAMPLE ID: PE-A-4
SAMPLE DEPTH: 6ft.
PARAMETER | CONC.*
TOT. VOCS | 1878
TOT.BNS | 750
TOT. LEAD | 61.2
SAMPLE ID: PE-A-5
SAMPLE DEPTH: 6ft
PARAMETER | CONC.*
TOT. VOCS | 89
TOT.BNS | 400
TOT. LEAD | 64.1
SAMPLE ID: PE-A-6
SAMPLE DEPTH: 6ft
PARAMETER | CONC.*
TOT. VOCS | 852
TOT.BNS | 8860
TOT. LEAD | 111.0
SAMPLE ID: PE-A-1
SAMPLE DEPTH: 6ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | ND
TOT. LEAD | 20.5
(2) 550-GALLON USTS (REMOVED)
LIMITS OF EXCAVATION
AREA 'A'
VENT LINE (REMOVED)
VENT (REMOVED)
PE-A-1
PE-A-2
PE-A-3
PE-A-4
PE-A-5
PE-A-6
39TH STREET
B


C
B
(1) ABOVEGROUND STORAGE TANK LABELED 'FUEL OIL' (REMOVED)
AREA "C"
WATER LINE
DISPENSER (BE REMOVED)
AREA "D"
(1) 4000 GALLON GASOLINE UST AND (1) 4000 GALLON DIESEL UST (REMOVED)
FUEL LINES (REMOVED)
PUMP ISLAND AND DISPENSERS (REMOVED)
VENT LINE (REMOVED)
VENT (REMOVED)
VENT LINE (REMOVED)
VENT (REMOVED)
MAINTENANCE SHOP
PUMP ISLAND AND DISPENSERS (REMOVED)
HYDRAULIC LIFTS (REMOVED)
(3) 4000-GALLON GASOLINE USTS (REMOVED)
VENTS (REMOVED)
(1) 550 GALLON WASTE OIL UST (REMOVED)
AREA "B"


(1) ABOVEGROUND STORAGE TANK (REMOVED)
B-C1
AREA "C"
DISPENSER (BE REMOVED)
B-D3
B-D2
AREA "D"
WATER LINE
(1) 4000 GALLON GASOLINE UST AND (1) 4000 GALLON DIESEL UST (REMOVED)
PUMP ISLAND AND DISPENSERS (REMOVED)
MW-D2
MW-D3
MW-D1
B-D1
VENT LINE (REMOVED)
VENT (REMOVED)
LIMITS OF EXCAVATION
MW-D4
VENT LINE (REMOVED)
VENT (REMOVED)
MAINTENANCE SHOP
PUMP ISLAND AND DISPENSERS (REMOVED)
MW-B3
(3) 4000-GALLON GASOLINE USTS (REMOVED)
MW-B4
MW-B2
VENTS (REMOVED)
MW-B1
(1) 550 GALLON WASTE OIL (REMOVED)
LIMITS OF EXCAVATION
AREA "B"


SAMPLE ID: PE-D-6
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | ND
TOT. LEAD | 119
SAMPLE ID: PE-B-HY-1
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | ND
TOT. LEAD | ND
TOT.PCBS | ND
SAMPLE ID: HYD2-0415
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | 1760
TOT. LEAD | NA
TOT.PCBS | ND
SAMPLE ID: HYD3-0415
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | 4380
TOT. LEAD | NA
TOT.PCBS | ND
SAMPLE ID: HYD4-0415
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | 14
TOT.BNS | 1216
TOT. LEAD | NA
TOT.PCBS | ND
(1) ABOVEGROUND STORAGE TANK (REMOVED)
AREA "C"
SAMPLE ID: PE-B-5
SAMPLE DEPTH: 1ft
PARAMETER | CONC.*
TOT. VOCS | 347
TOT.BNS | ND
TOT. LEAD | 99.7
SAMPLE ID: PE-B-3
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | 1530
TOT. LEAD | 73.1
(3) 4000-GALLON GASOLINE USTS (REMOVED)
SAMPLE ID: PE-B-4
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | 20
TOT.BNS | ND
TOT. LEAD | 10.5
SAMPLE ID: PE-B-1
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | ND
TOT. LEAD | 15.2
AREA "B"
SAMPLE ID: PE-B-2
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | ND
TOT. LEAD | 7.44
PUMP ISLAND AND DISPENSERS (REMOVED)
SAMPLE ID: PE-WO-B-1
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | 512
TOT.BNS | 22700
TOT. LEAD | 124
SAMPLE ID: PE-WO-B-2
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | 180
TOT.BNS | 1850
TOT. LEAD | 130
LIMITS OF EXCAVATION
(1) 550 GALLON WASTE OIL (REMOVED)
SAMPLE ID: PE-WO-B-3
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | 13060
TOT. LEAD | 146
SAMPLE ID: PE-D-2
LE DEPTH: 7.5ft
ETER | CONC.*
VOCS | ND
NS | ND
LEAD | 204
SAMPLE ID: PE-D-1
MPLE DEPTH: 7.5ft
AMETER | CONC.*
T. VOCS | 25
T.BNS | ND
T. LEAD | 240
SAMPLE ID: PE-D-4
SAMPLE DEPTH: 7.5ft
ARAMETER | CONC.*
TOT. VOCS | 525
TOT.BNS | 380
TOT. LEAD | 1480
SAMPLE ID: PE-D-3
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | ND
TOT.BNS | 340
TOT. LEAD | 118
SAMPLE ID: PE-D-5
SAMPLE DEPTH: 7.5ft
PARAMETER | CONC.*
TOT. VOCS | 810
TOT.BNS | 3420
TOT. LEAD | 128
WATER LINE
DISPENSER (BE REMOVED)
AREA "D"
MAINTENANCE SHOP
(1) 4000 GALLON GASOLINE UST AND (1) 4000 GALLON DIESEL UST (REMOVED)
PUMP ISLAND AND DISPENSERS (REMOVED)
VENT LINE (REMOVED)
VENT (REMOVED)
PE-D-1
PE-D-2
PE-D-3
PE-D-4
PE-D-5
PE-D-6
PE-B-HY-1
PE-B-5
PE-WO-B1
PE-WO-B2
PE-WO-B3
HYD2-0415
HYD3-0415
HYD4-0415
B-1
B-2
B-3
B-4

The Tyree Organization, Ltd.
4301 Boston Post Road, Bronx, NY 10466 · Fax: 718-515-8073 · Phone: 718-515-8054
April 3, 1998

New York City Fire Department
9 Metro Tech Center
Brooklyn, New York 11201
3rd - Floor Bulk Fuel Safety 11201-3857

ATTN: Inspector Lenny Geldman
Bulk Fuel Safety Unit

RE: Brooklyn Marine Terminal
39th Street & 1st Avenue
Brooklyn, NY

Dear Inspector Geldman:

This letter is to confirm that on March 18 through March 23, 1998 the Larry E. Tyree Co., Inc. (License #62071006) properly removed 5 - 4000 gallon and 3 - 550 gallon underground fuel storage tanks at the above referenced site in accordance with the New York State Department of Conservation (NYSDEC) Petroleum Bulk Storage regulatory guidelines, 6NYCRR Part 613.9(b). All volatile liquids were pumped from the tanks. Next the tanks were purged of explosive vapors as well as the lines and all openings sealed. Vent risers were removed. The tanks were subsequently scrapped and sent to a scrap recycling facility.

If you have any further questions concerning this matter, feel free to contact this office.

Sincerely,

William M. Tyree
Larry E. Tyree Co., Inc.

Sworn to before me this 3rd day of April 1998.

Barbara Caneross
Notary Public

BARBARA CANEROSSI
NOTARY PUBLIC State of New York
No. 01C[illegible]1595
Qualified in [illegible] County
Commission Expires June 10, 19[illegible]

Member
The Tyree Organization

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2
Spill Prevention and Response
47-40 21st Street, Long Island City, NY 11101
Phone: (718) 482-4933, ext. 7152 **Fax:** (718) 482-6390
Website: www.dec.state.ny.us **E-mail:** jakollee@gw.dec.state.ny.us

John P. Cahill
Commissioner

April 20, 2000

Afsar Taherzadeh
NYC Department of Design and Construction
30-30 Thomson Avenue
Long Island City, NY 11101

Re: **Site Specific Investigation Plan**
Brooklyn Marine Terminal
29th–39th Streets & Gowanus Bay
Brooklyn, New York

Dear Ms. Taherzadeh:

The Department has reviewed a revised Site Specific Investigation Plan (SSIP) for the above-referenced site, submitted in February 2000 by URS Greiner Woodward Clyde (URSGWC) for Kirkyla & Remeza, Inc. The plan incorporates an earlier SSIP prepared by Ballard Engineering Consulting, P.C. in July 1998 and approved with modifications by DEC in the same month, and includes several additional modifications proposed by URSGWC.

URSGWC's modifications include installation of an additional monitoring well in Area A, analysis of two soil samples from each well/boring by the TCLP extraction method, analysis of one soil sample from each boring in Area D for PCBs, and performance of slug testing on six monitoring wells.

The plan is approved. Please notify the Department in writing of the planned start date for this fieldwork. Feel free to contact me if you have any questions.

Sincerely,

Jonathan Kolleeny
Engineering Geologist I
Division of Environmental Remediation
Bureau of Spill Prevention and Response

cc: James Stachowski - URSGWC
Saul Remeza - Kirkyla & Remeza
File

review approval letter sent 8/7/01

K7-03-1063

3 of 4

Investigation Summary and Remedial Plan for the New York City Economic Development Corporation

Brooklyn Marine Terminal

Foot of 29th to 39th Streets and Gowanus Bay
Brooklyn, New York

prepared for:

DDC
New York City
Department of Design and Construction
Transportation Program Unit

on behalf of:

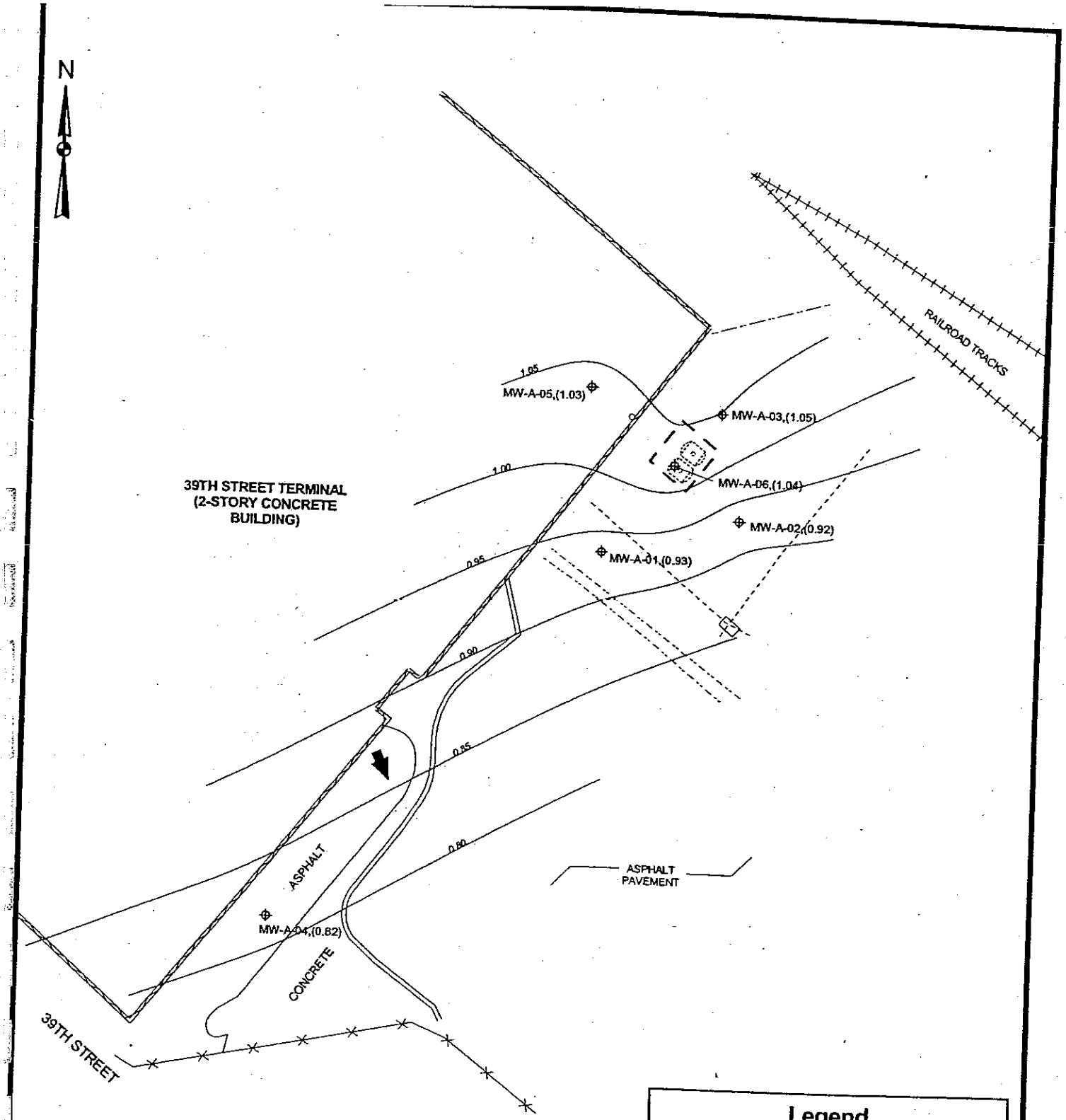
Kirkyla & Remeza, Inc.
3601 43rd Avenue
Long Island City, NY 11101

prepared by:

URS Corporation
Group Consultants, Inc.

April 2001

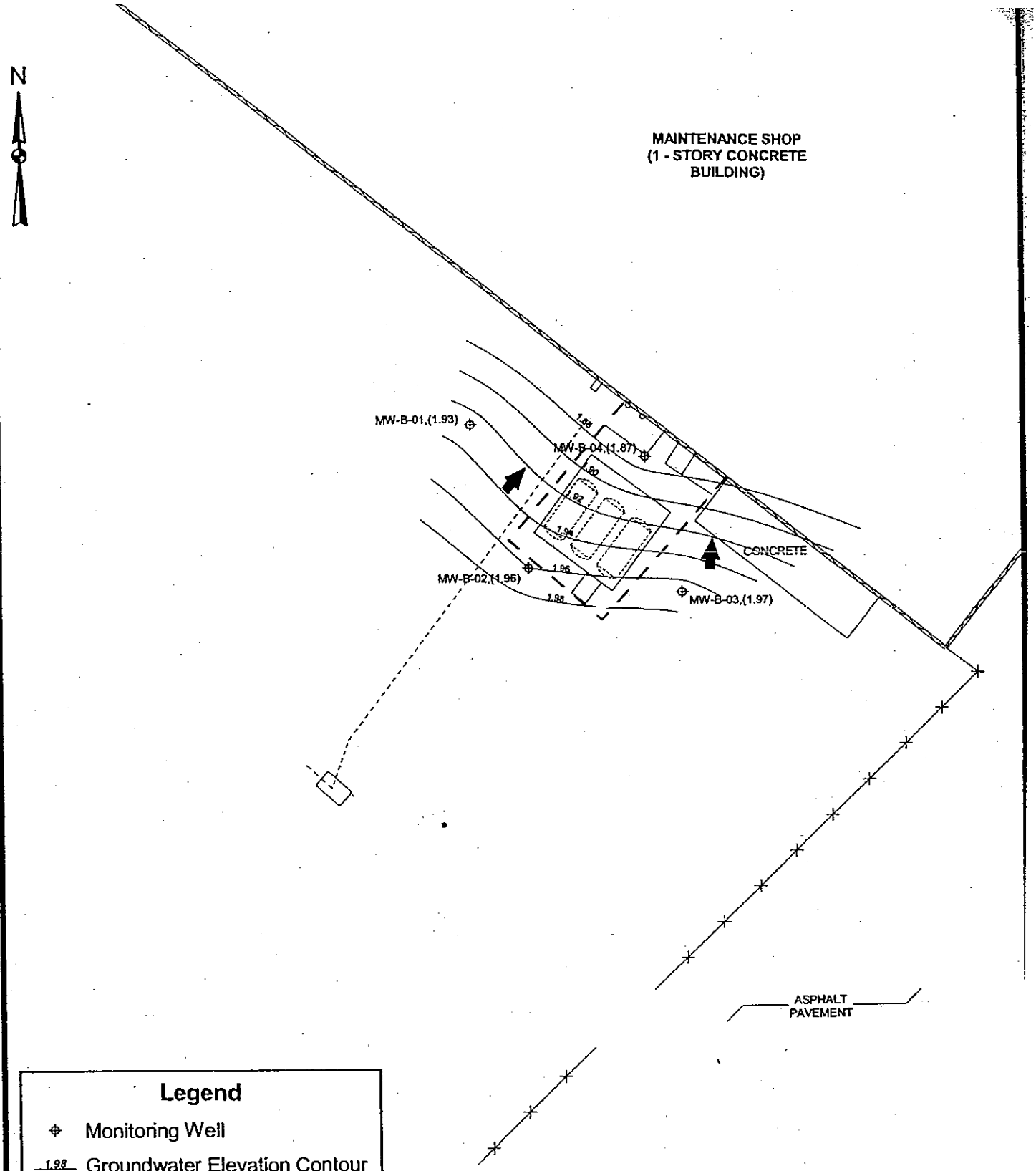
G33468



URS

BROOKLYN MARINE TERMINAL
GROUNDWATER ELEVATION CONTOUR MAP
(AREA A) (OCTOBER 20, 2000)

FIGURE 3-2

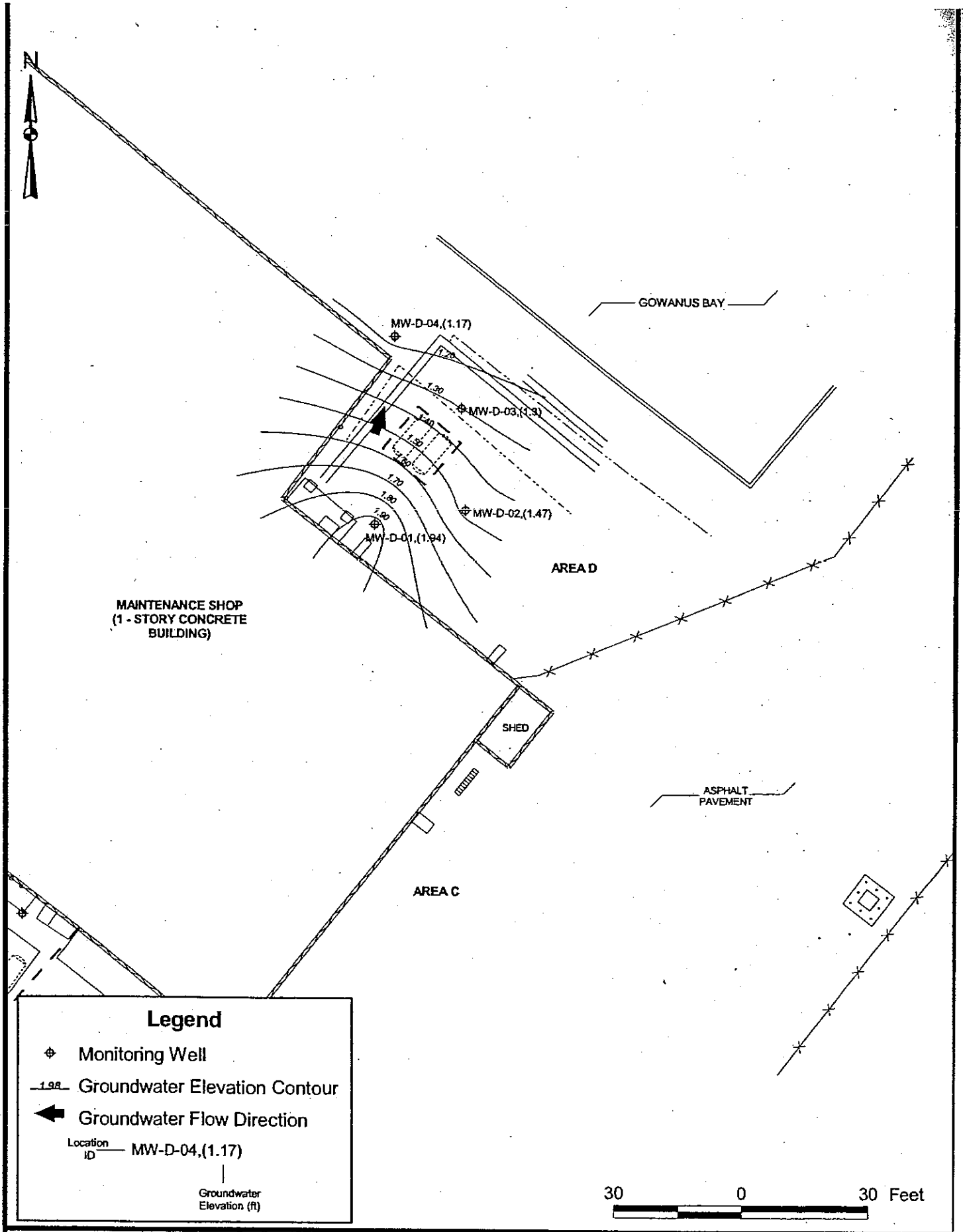


J:\35602.00\db\GIS\b854a.apr (AREA B) GROUNDWATER ELEVATION CONTOUR MAP
1/30/2001

URS

BROOKLYN MARINE TERMINAL
GROUNDWATER ELEVATION CONTOUR MAP
(AREA B) (OCTOBER 20, 2000)

FIGURE 3-3

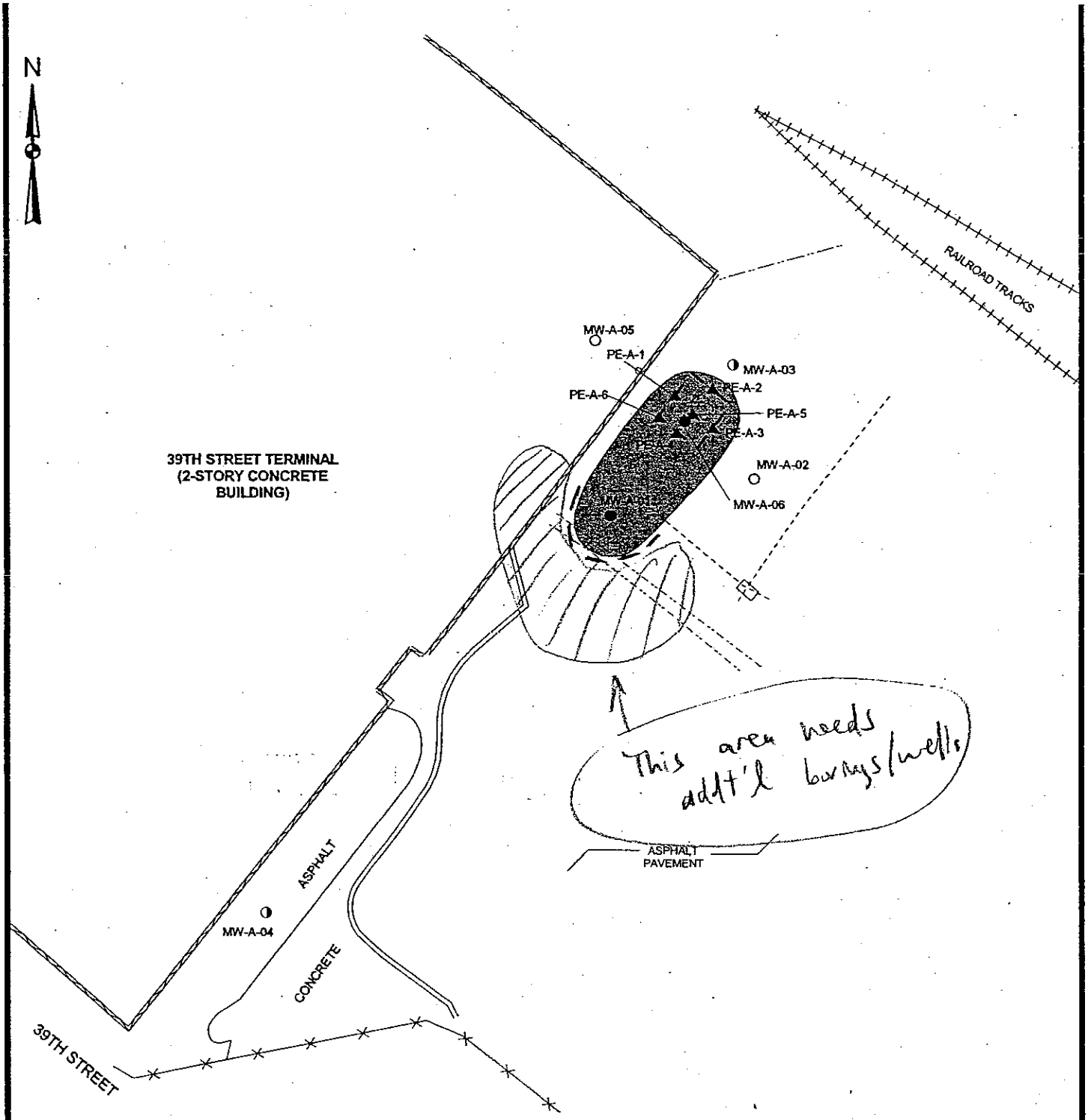


J:\35882.00\db\GIS\B854A.apr (AREAS C & D) GROUNDWATER ELEVATION CONTOUR MAP
4/23/2001

URS

BROOKLYN MARINE TERMINAL
GROUNDWATER ELEVATION CONTOUR MAP
(AREA D) (OCTOBER 20, 2000)

FIGURE 3-4



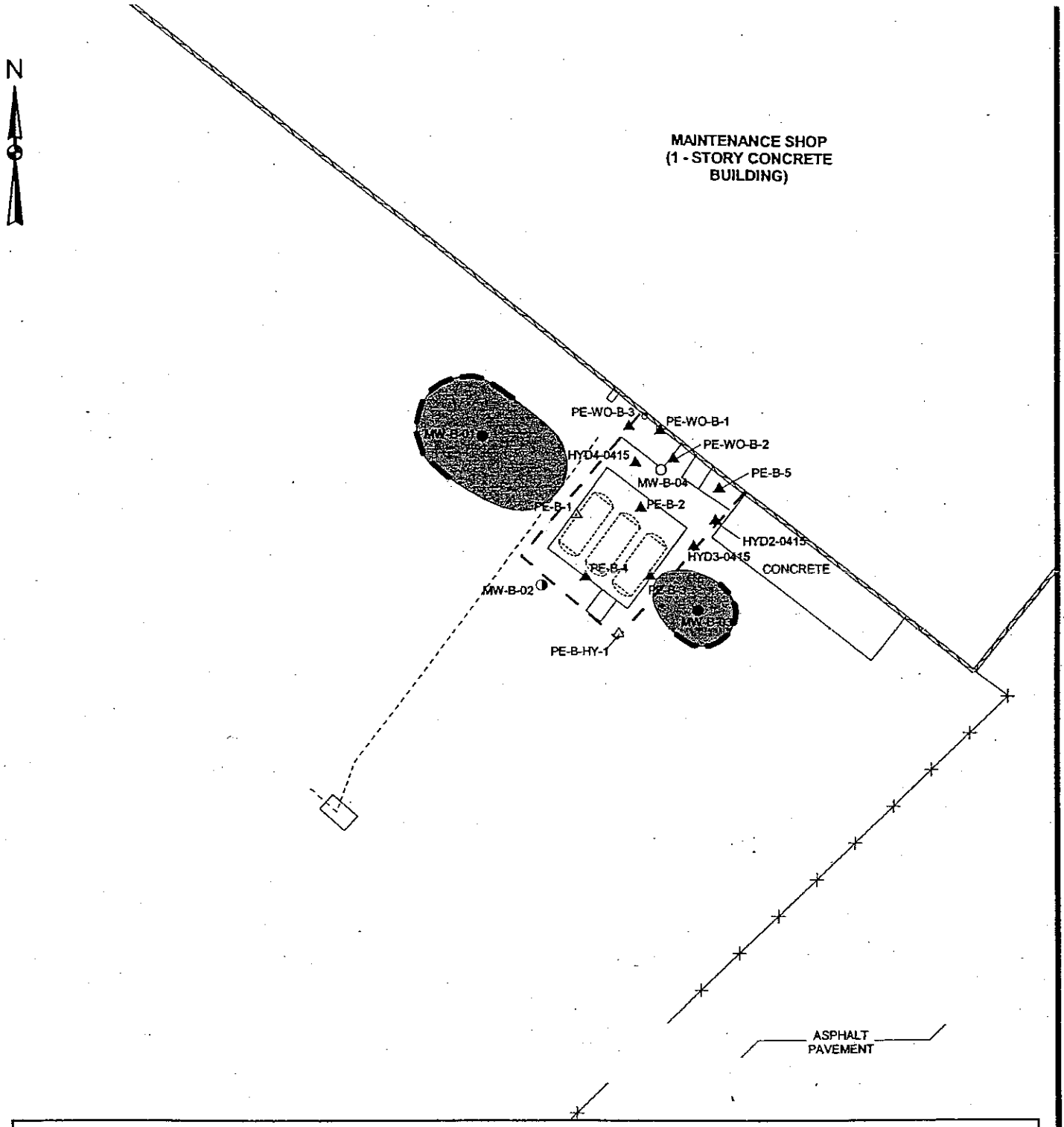
Legend

- ○ Monitoring Well
- △ Closure Sample
- ○,△ No Compounds Detected
- ◑,◬ No Compounds Exceed Criteria
- ●,▲ At Least One Compound Exceeds Criteria
- Estimated Extent of Vadose Soil Contamination

30 0 30 Feet

URS	BROOKLYN MARINE TERMINAL EXTENT OF VADOSE ZONE SOIL CONTAMINATION (AREA A)	FIGURE 4-1

J:\35882.00\db\GIS\B654A.apr (AREA A) SOIL CONTAMINATION
4/23/2001



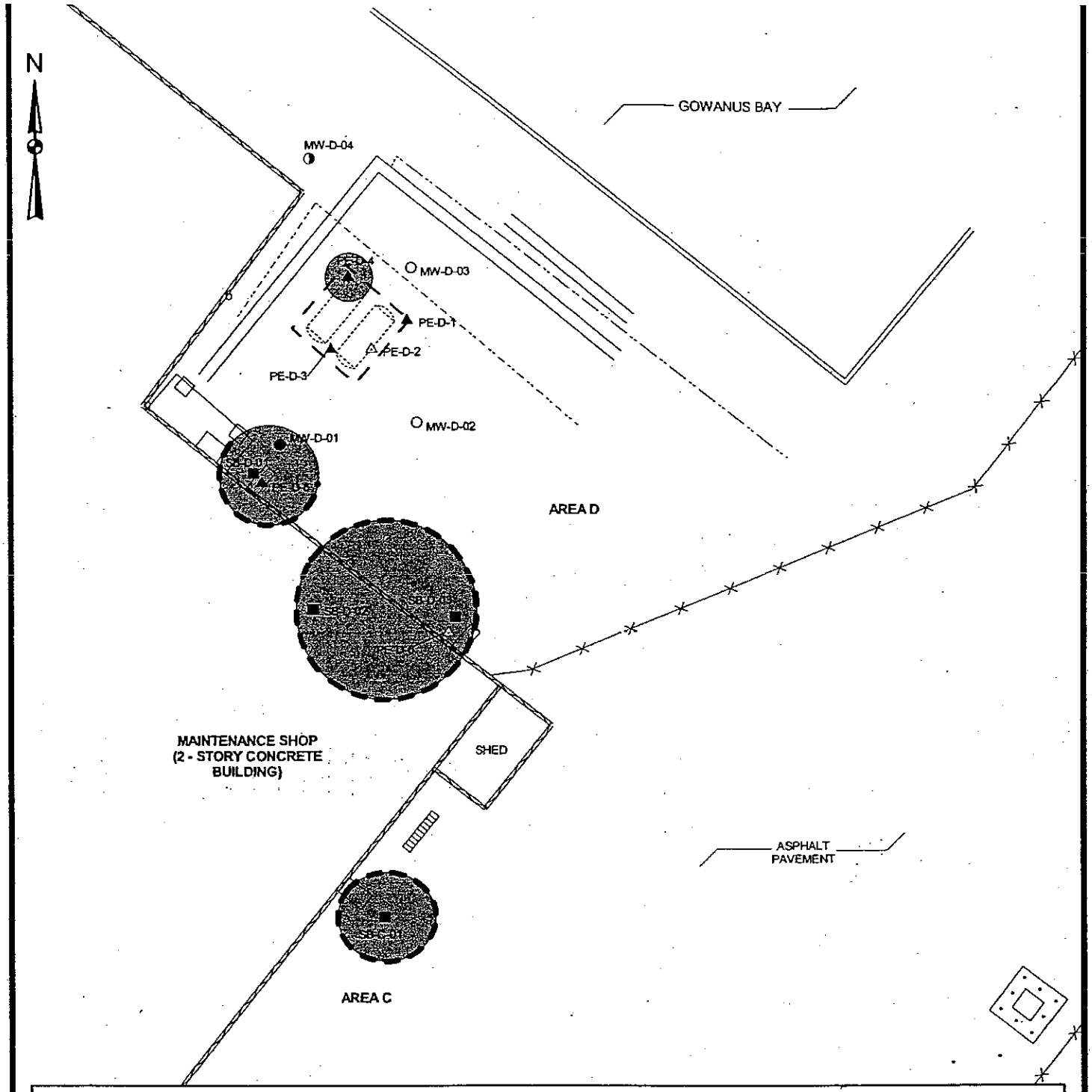
Legend

- ○ Monitoring Well
- △ Closure Sample
- ○,△ No Compounds Detected
- ◑,◬ No Compounds Exceed Criteria
- ●,▲ At Least One Compound Exceeds Criteria
- Estimated Extent of Vadose Soil Contamination
- Extent of Soil Contamination Unknown

30 0 30 Feet

URS	BROOKLYN MARINE TERMINAL EXTENT OF VADOSE ZONE SOIL CONTAMINATION (AREA B)	FIGURE 4-2

J:\35682.00\dlg\GIS\B854A.apr (AREA B) SOIL CONTAMINATION
4/23/2001



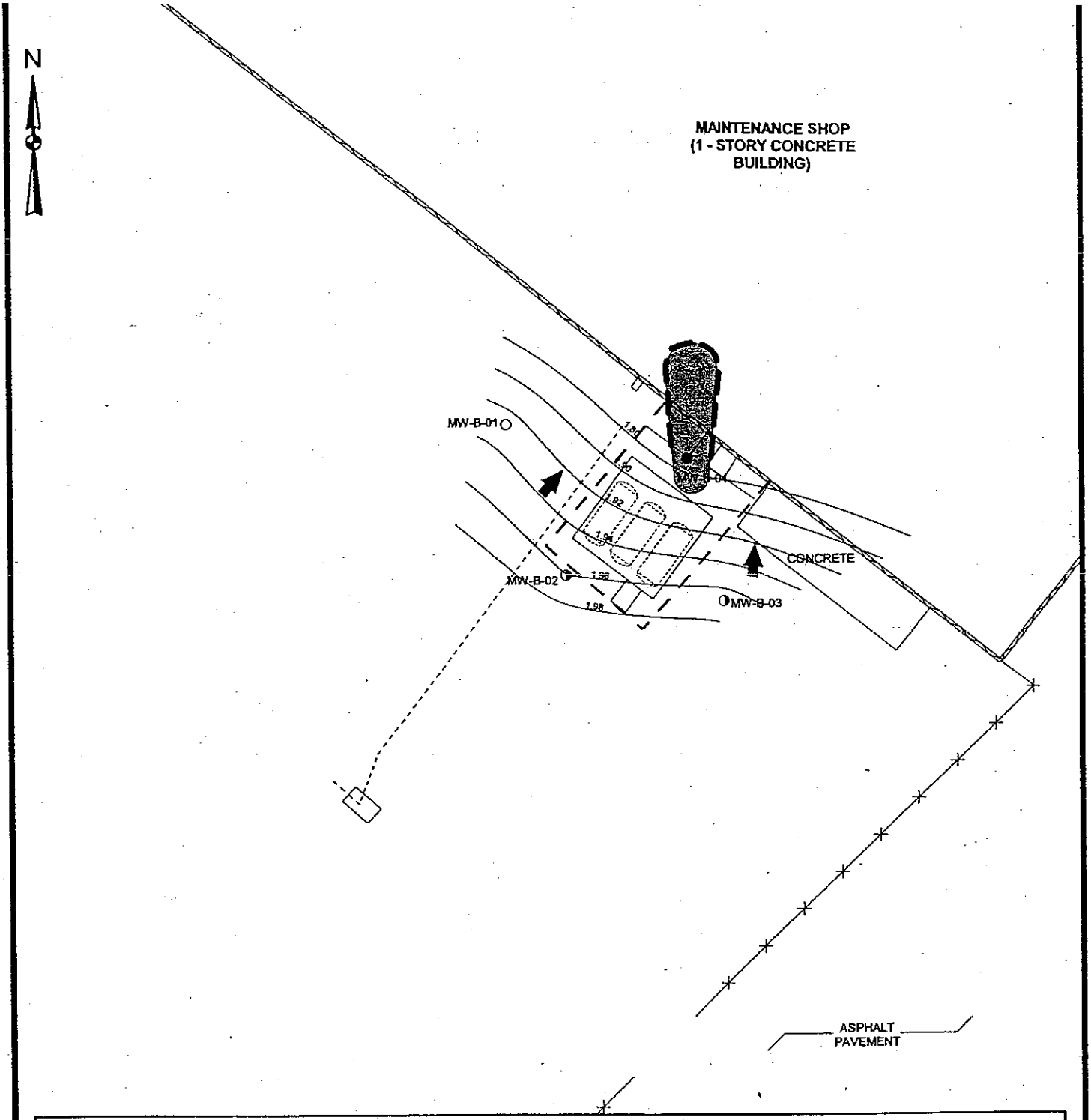
Legend

- ○ Monitoring Well
- □ Soil Boring
- △ Closure Sample
- ○,△,□ No Compounds Detected
- ◑,◬,◪ No Compounds Exceed Criteria
- ●,▲,■ At Least One Compound Exceeds Criteria
- Estimated Extent of Vadose Soil Contamination
- Extent of Soil Contamination Unknown

30 0 30 Feet

URS	BROOKLYN MARINE TERMINAL EXTENT OF VADOSE ZONE SOIL CONTAMINATION (AREAS C & D)	FIGURE 4-3

J:\35682.00\d\GIS\B854A.apr (AREAS C & D) SOIL CONTAMINATION
4/23/2001



Legend

- Monitoring Well
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 1.98 Groundwater Elevation Contour
- Groundwater Flow Direction
- Estimated Extent of Groundwater Contamination
- Extent of Groundwater Contamination Unknown

30 0 30 Feet

URS

BROOKLYN MARINE TERMINAL
EXTENT OF GROUNDWATER CONTAMINATION
(AREA B)

FIGURE 4-4

J:\35682.00\db\GIS\BB54A.apr (AREA B) GROUNDWATER CONTAMINATION
4/23/2001

TABLE 2-1
BROOKLYN MARINE TERMINAL
SAMPLING LOCATIONS AND ELEVATIONS

Location ID	Type	Northing	Easting	Ground Elevation (ft)	Riser Elevation (ft)
HYD2-0415	CLOSURE BORING	665176.49	627313.20	NA	NA
HYD3-0415	CLOSURE BORING	665171.11	627308.63	NA	NA
HYD4-0415	CLOSURE BORING	665188.61	627296.24	NA	NA
MW-A-01	WELL	664943.39	626986.27	9.20	8.84
MW-A-02	WELL	664950.99	627016.76	9.06	8.63
MW-A-03	WELL	664974.41	627012.39	9.13	8.65
MW-A-04	WELL	664860.41	626914.23	9.89	9.38
MW-A-05	WELL	664979.42	626983.06	9.44	9.06
MW-A-06	WELL	664962.88	627002.18	9.17	9.00
MW-B-01	WELL	665193.98	627263.58	9.52	9.19
MW-B-02	WELL	665162.69	627276.14	9.78	9.28
MW-B-03	WELL	665157.34	627309.55	10.02	9.72
MW-B 04	WELL	665186.88	627301.72	10.22	9.89
MW-D-01	WELL	665310.32	627412.85	10.05	9.64
MW-D-02	WELL	665314.74	627441.39	9.56	9.25
MW-D-03	WELL	665346.66	627440.18	9.23	8.97
MW-D-04	WELL	665369.07	627419.09	9.15	8.83
PE-A-1	CLOSURE BORING	664968.23	627000.10	NA	NA
PE-A-2	CLOSURE BORING	664969.63	627008.04	NA	NA
PE-A-3	CLOSURE BORING	664961.47	627008.11	NA	NA
PE-A-4	CLOSURE BORING	664960.57	627000.51	NA	NA
PE-A-5	CLOSURE BORING	664964.40	627003.86	NA	NA
PE-A-6	CLOSURE BORING	664963.77	626996.68	NA	NA
PE-B-1	CLOSURE BORING	665177.84	627283.58	NA	NA
PE-B-2	CLOSURE BORING	665179.19	627297.32	NA	NA
PE-B-3	CLOSURE BORING	665164.92	627299.20	NA	NA
PE-B-4	CLOSURE BORING	665164.65	627285.47	NA	NA
PE-B-5	CLOSURE BORING	665183.23	627314.01	NA	NA
PE-B-HY-1	CLOSURE BORING	665152.80	627292.47	NA	NA
PE-D-1	CLOSURE BORING	665336.18	627439.36	NA	NA
PE-D-2	CLOSURE BORING	665330.26	627431.97	NA	NA
PE-D-3	CLOSURE BORING	665330.26	627423.47	NA	NA

Horizontal Datum NAD 1983, NY East
Vertical Datum NGVD 1929

NA - Not Available

J:\35448\DB\brooram\brooram.mdb
Filter: (IdIl.ISITEIDI='854')
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Wednesday, April 25, 2001

TABLE 2-1
BROOKLYN MARINE TERMINAL
SAMPLING LOCATIONS AND ELEVATIONS

Location ID	Type	Northing	Easting	Ground Elevation (ft)	Riser Elevation (ft)
PE-D-4	CLOSURE BORING	665345.05	627427.16	NA	NA
PE-D-5	CLOSURE BORING	665302.53	627409.05	NA	NA
PE-D-6	CLOSURE BORING	665271.11	627447.87	NA	NA
PE-WO-B-1	CLOSURE BORING	665195.34	627301.62	NA	NA
PE-WO-B-2	CLOSURE BORING	665189.42	627304.32	NA	NA
PE-WO-B-3	CLOSURE BORING	665196.15	627294.89	NA	NA
SB-C-01	SOIL BORING	665211.04	627434.49	9.98	NA
SB-D-01	SOIL BORING	665304.38	627407.28	10.03	NA
SB-D-02	SOIL BORING	665275.82	627419.66	10.29	NA
SB-D-03	SOIL BORING	665274.06	627449.33	9.94	NA

Horizontal Datum NAD 1983, NY East
Vertical Datum NGVD 1929

NA - Not Available

Wednesday, April 25, 2001

J:\35448\DB\bororam\bororam.mdb
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TABLE 3-1
BROOKLYN MARINE TERMINAL
GROUNDWATER ELEVATION MEASUREMENTS

Location I.D.	Measurement Date/Time	Measuring Point Elevation	Depth to Water (feet)	WaterElevation (feet amsl)	Remarks
MW-A-01	10/17/2000	8.84	7.29	1.55	
	10/20/2000		7.91	0.93	
	11/17/2000		8.11	0.73	
	12/19/2000		8.23	0.61	
MW-A-02	10/17/2000	8.63	7.06	1.57	
	10/20/2000		7.71	0.92	
	11/17/2000		7.91	0.72	
	12/19/2000		7.98	0.65	
MW-A-03	10/17/2000	8.65	7.14	1.51	
	10/20/2000		7.60	1.05	
	11/17/2000		7.99	0.66	
	12/19/2000		8.10	0.55	
MW-A-04	10/17/2000	9.38	7.72	1.66	
	10/20/2000		8.56	0.82	
	11/17/2000		8.23	1.15	
	12/19/2000		8.35	1.03	
MW-A-05	10/17/2000	9.06	7.59	1.47	
	10/20/2000		8.03	1.03	
	11/17/2000		NM	-	No Access
	12/19/2000		8.27	0.79	
MW-A-06	10/17/2000	9.00	7.42	1.58	
	10/20/2000		7.96	1.04	
	11/17/2000		8.23	0.77	
	12/19/2000		8.43	0.57	
MW-B-01	10/17/2000	9.19	7.15	2.04	
	10/20/2000		7.26	1.93	
MW-B-02	10/17/2000	9.28	7.25	2.03	
	10/20/2000		7.32	1.96	

NOTES:
1. NM - No measurement was taken.
2. amsl - Above mean sea level

Filter: [fowd].[SITEID]='854'
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Wednesday, January 31, 2001

TABLE 3-1
BROOKLYN MARINE TERMINAL
GROUNDWATER ELEVATION MEASUREMENTS

Location I.D.	Measurement Date/Time	Measuring Point Elevation	Depth to Water (feet)	WaterElevation (feet amsl)	Remarks
MW-B-03	10/17/2000	9.72	7.70	2.02	
	10/20/2000		7.75	1.97	
MW-B-04	10/17/2000	9.89	7.95	1.94	
	10/20/2000		8.02	1.87	
MW-D-01	10/17/2000	9.64	7.62	2.02	
	10/20/2000		7.70	1.94	
MW-D-02	10/17/2000	9.25	7.34	1.91	
	10/20/2000		7.78	1.47	
MW-D-03	10/17/2000	8.97	6.58	2.39	
	10/20/2000		7.67	1.3	
MW-D-04	10/17/2000	8.83	6.43	2.4	
	10/20/2000		7.66	1.17	

NOTES:
1. NM - No measurement was taken.
2. amsl - Above mean sea level

TABLE 3-2
BROOKLYN MARINE TERMINAL
SUMMARY OF SLUG TEST RESULTS

Well	cm/sec			ft/min			ft/day		
	Average	Falling	Rising	Average	Falling	Rising	Average	Falling	Rising
MW-A1	3.20E-03	3.20E-03	NA	6.30E-03	6.30E-03	NA	9.1	9.1	NA
MW-A2	1.50E-03	1.22E-03	1.78E-03	2.96E-03	2.41E-03	3.50E-03	4.3	3.5	5.0
MW-A3	1.24E-03	NA	1.24E-03	2.44E-03	NA	2.44E-03	3.5	NA	3.5
MW-A4	1.20E-03	1.20E-03	NA	2.36E-03	2.36E-03	NA	3.4	3.4	NA
MW-B1	2.60E-03	1.09E-03	4.11E-03	5.12E-03	2.14E-03	8.10E-03	7.4	3.1	11.7
MW-B3	2.18E-03	2.51E-03	1.84E-03	4.29E-03	4.95E-03	3.62E-03	6.2	7.1	5.2
MW-D2	2.62E-03	2.62E-03	NA	5.16E-03	5.16E-03	NA	7.4	7.4	NA
MW-D3	3.16E-03	NA	3.16E-03	6.22E-03	NA	6.22E-03	9.0	NA	9.0
MW-D4	2.28E-02	NA	2.28E-02	4.48E-02	NA	4.48E-02	64.5	NA	64.5

TABLE 3-3
BROOKLYN MARINE TERMINAL
COMPARISON OF GROUNDWATER ELEVATIONS IN AREA A

Well	Groundwater Elevation		
	10/20/00	11/17/00	12/19/00
MW-A-01	0.93	0.73	0.61
MW-A-02	0.92	0.72	0.65
MW-A-03	1.05	0.66	0.55
MW-A-04	0.82	1.15	1.03
MW-A-05	1.03	-----	0.79
MW-A-06	1.04	0.77	0.57
Primary Flow Direction	SOUTH	NORTHEAST	NORTHEAST

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2
Spill Prevention and Response
47-40 21st Street, Long Island City, NY 11101
Phone: (718) 482-6388 **Fax:** (718) 482-6390
Website: www.dec.state.ny.us **E-mail:** jakollee@gw.dec.state.ny.us

Erin M. Crotty
Commissioner

August 7, 2001

Afsar Samani
NYC Department of Design & Construction
30-30 Thomson Avenue
Long Island City, NY 11101

Re: Investigation Summary and Remedial Plan
Brooklyn Marine Terminal
29th–39th Streets & Gowanus Bay
Brooklyn, New York

Dear Ms. Samani:

The Department has reviewed the ISRP for the above-referenced site, submitted in April 2001 by URS Corporation (URS), the design consultant to Kirkyla & Remeza, Inc. The report summarizes investigative activities at four separate tank areas on the site (Areas A, B, C, and D), concluding that there is vadose zone soil contamination in all four areas and dissolved-phase groundwater contamination in one area (Area B).

URS recommends excavation and off-site disposal of contaminated soil in all four areas, and application of oxygen release compound (ORC©) to address the dissolved-phase groundwater contamination in Area B. The report also states that additional investigations will be required to better delineate the extent of soil contamination in Areas B, C and D.

The remedial plan is approved, with the following comment:

- The Department recommends additional investigation in Area A to delineate soil contamination to the south, east and west of MW-A-01, which had very high levels of several petroleum-related compounds in the TCLP extract from one soil sample and which is located relatively far from the former UST locations in Area A.

Please notify the Department in writing prior to performing any fieldwork at the site, and advise us of any changes in the fieldwork schedule. Feel free to contact me if you have any questions.

Sincerely,

Jonathan Kolleeny
Engineering Geologist I
Division of Environmental Remediation

cc: Martin Ambrose - NYCDDC
Robert Murphy - URS
Sam Liapunov - K & R
File

URS

reviewed, no response required. Spoke to Jim Stachowski by phone on 12/10/01 re: need to find out effect, if any, of saline brackish water on ORC effectiveness. He agreed that this would be considered

October 5, 2001

Mr. Jonathan Kolleeny
Engineering Geologist I
Division of Environmental Remediation
Bureau of Spills Prevention and Response
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101

RE: NYCDDC UST Program
Pre-Design Investigation Plan
Brooklyn Marine Terminal
Brooklyn, New York

Dear Mr. Kolleeny:

URS Corporation (URS), on behalf of Kirkyla and Remeza, Inc., will perform a pre-design investigation (PDI) at the Brooklyn Marine Terminal (Figure 1). The purpose of the PDI is to determine the extent of petroleum contaminated soil and groundwater at the site and provide data to support remedial design.

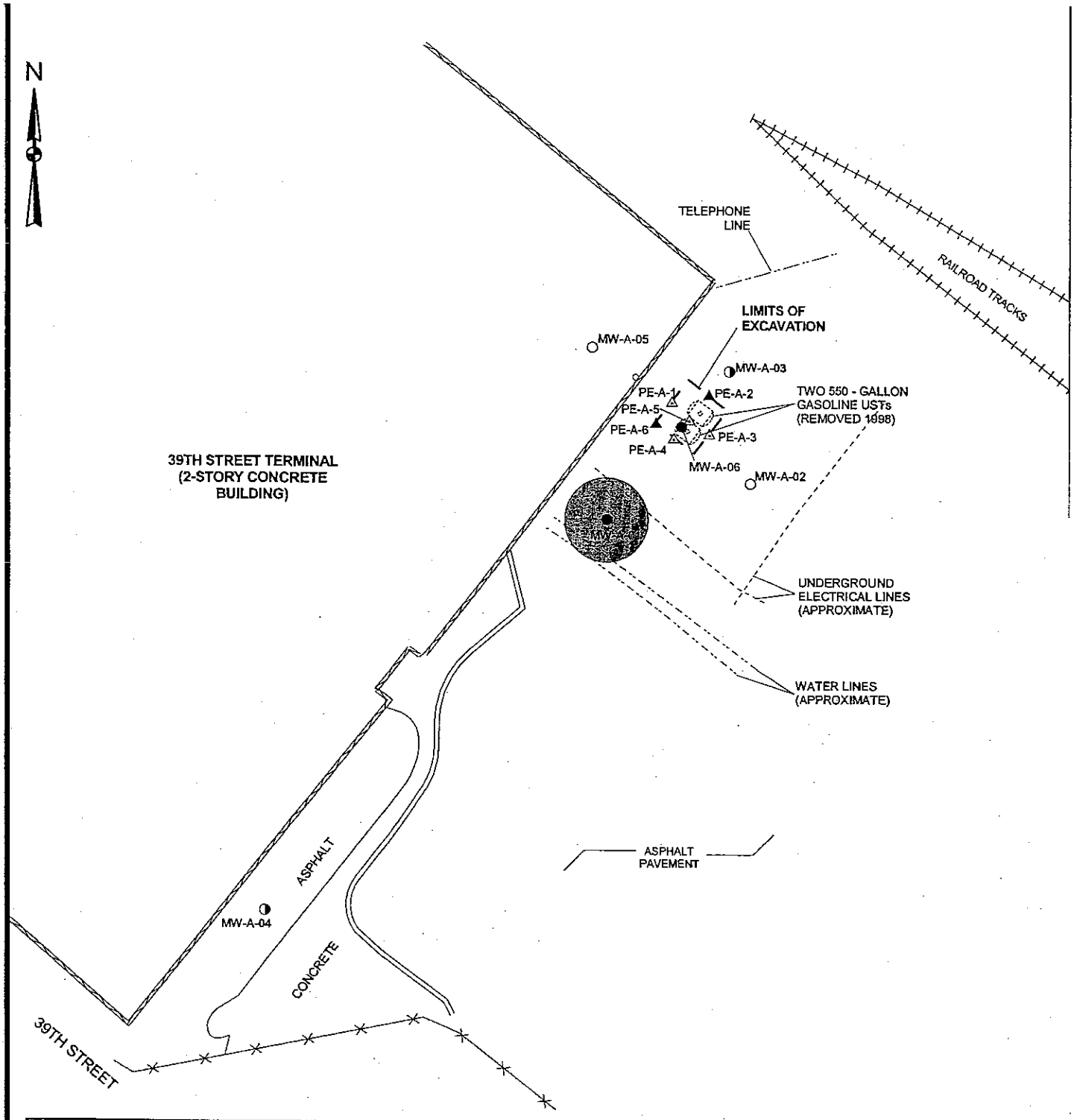
Site Background

The Brooklyn Marine Terminal is located at the foot of 29th to 39th Streets and Gowanus Bay in Brooklyn, New York. The site is currently owned by the New York City Economic Development Corporation and is identified on the NYC Department of Buildings Tax Map as Block 662, Lot 1. A majority of the site is paved with asphalt or occupied by concrete buildings (Figure 2). The following structures are currently located at the site:

- several warehouses;
- a maintenance shop used for vehicle repair;
- numerous slips and piers for the docking and unloading of cargo ships;
- the South Brooklyn Railway Yard, which currently has one track in operation;
- the Tower Building, which currently houses a police Scuba Unit; and
- a Department of Sanitation Building.

Ballard Engineering Consulting, P.C. (Ballard), acting as a design subconsultant to Valid Construction Services, Inc., prepared a Site Specific Investigation Plan (SSIP) dated July 17, 1998. The SSIP detailed the results of an environmental assessment performed by Ballard following the excavation and/or removal of underground storage tanks (USTs) and above ground storage tanks (ASTs) by the Tyree Organization, Ltd. (Tyree). As part of the SSIP, Ballard identified and proposed additional investigative work in four areas of the site, designated as Areas A through D (Figure 2). Petroleum product storage tanks and ancillary components formerly located in these areas are summarized below and shown on Figures 3 and 4. Closure soil sample locations are also shown on Figures 3 and 4.

URS Corporation
282 Delaware Avenue
Buffalo, NY 14202-1805
Tel: 716.856.5636
Fax: 716.856.2545



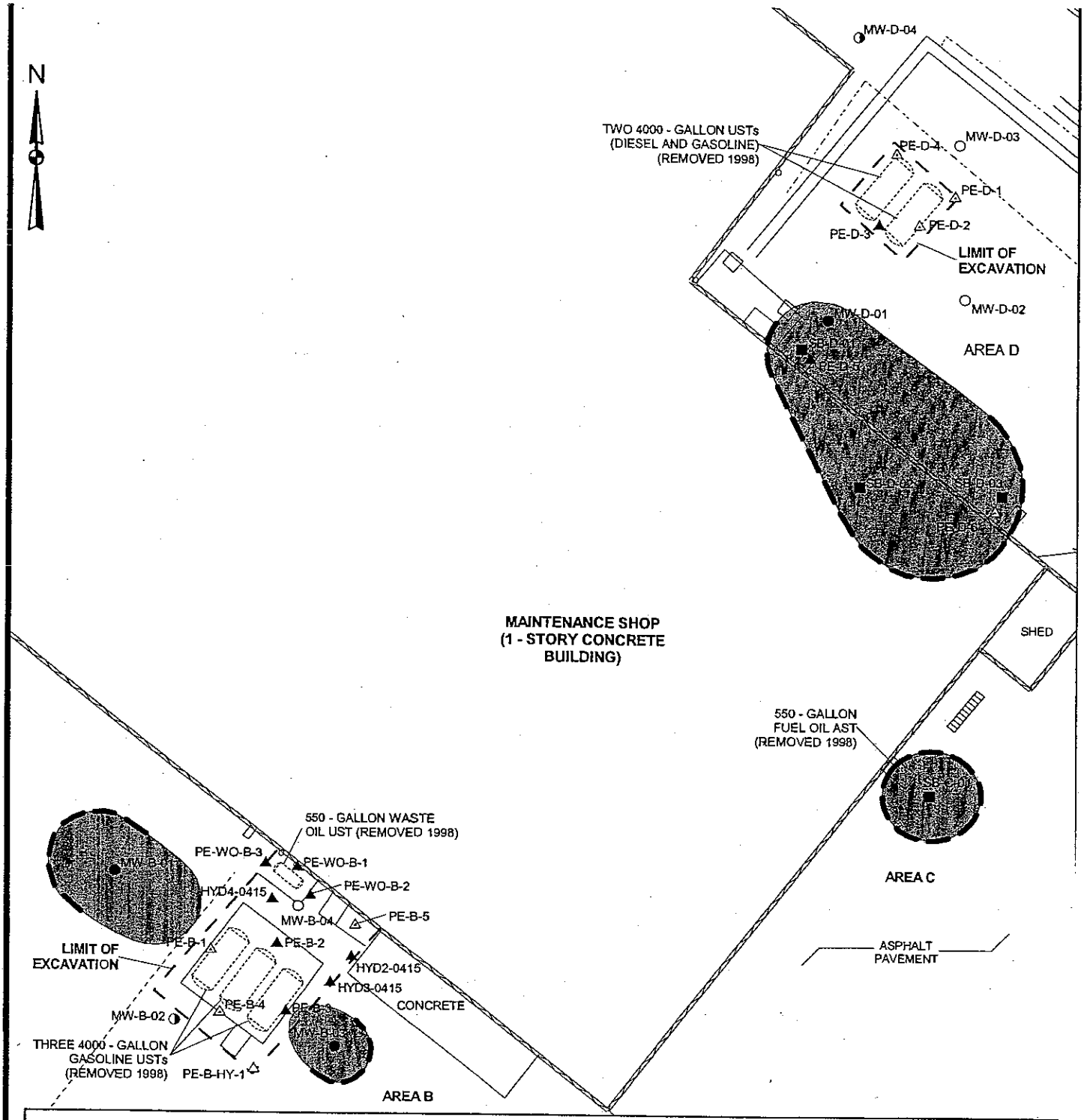
Legend

- ○ Monitoring Well
- △ Closure Sample
- ○ , △ No Compounds Detected
- ◑ , ◬ No Compounds Exceed Criteria
- ● , ▲ At Least One Compound Exceeds Criteria
- Estimated Extent of Vadose Soil Contamination

30 0 30 Feet

URS	BROOKLYN MARINE TERMINAL EXTENT OF VADOSE ZONE SOIL CONTAMINATION (AREA A)	FIGURE 3

J:\35682.00\dbGIS\bs54a.apr (AREA A) SOIL CONTAMINATION
07/27/2001

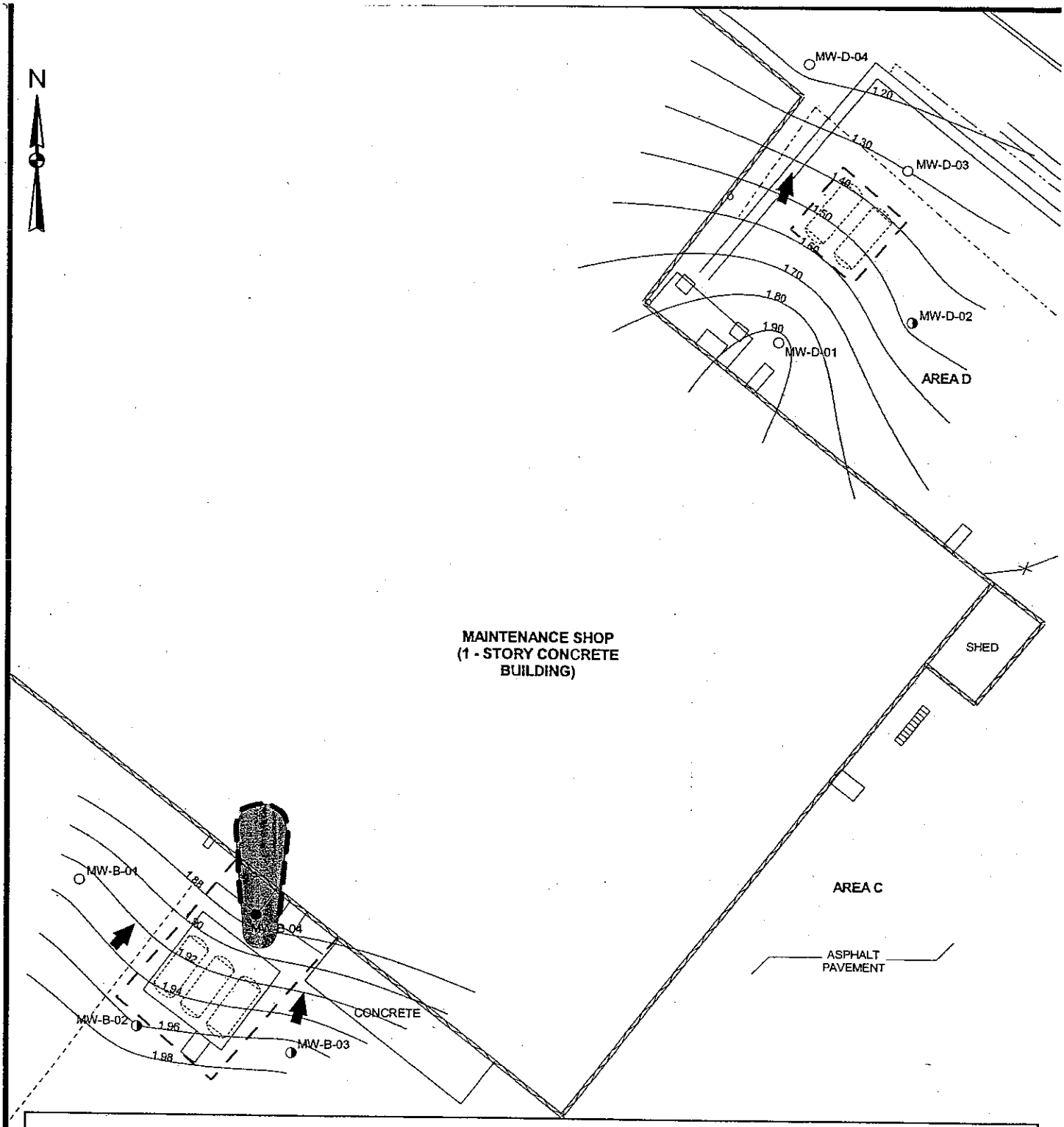


J:\35682.00\db\GIS\b654a.apr (AREAS B, C & D) SOIL CONTAMINATION
6/27/2001

URS

BROOKLYN MARINE TERMINAL
EXTENT OF VADOSE ZONE SOIL CONTAMINATION
(AREAS B, C & D)

FIGURE 4



Legend

- Monitoring Well
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 198 Groundwater Elevation Contour
- Groundwater Flow Direction
- Estimated Extent of Groundwater Contamination
- Extent of Groundwater Contamination Unknown

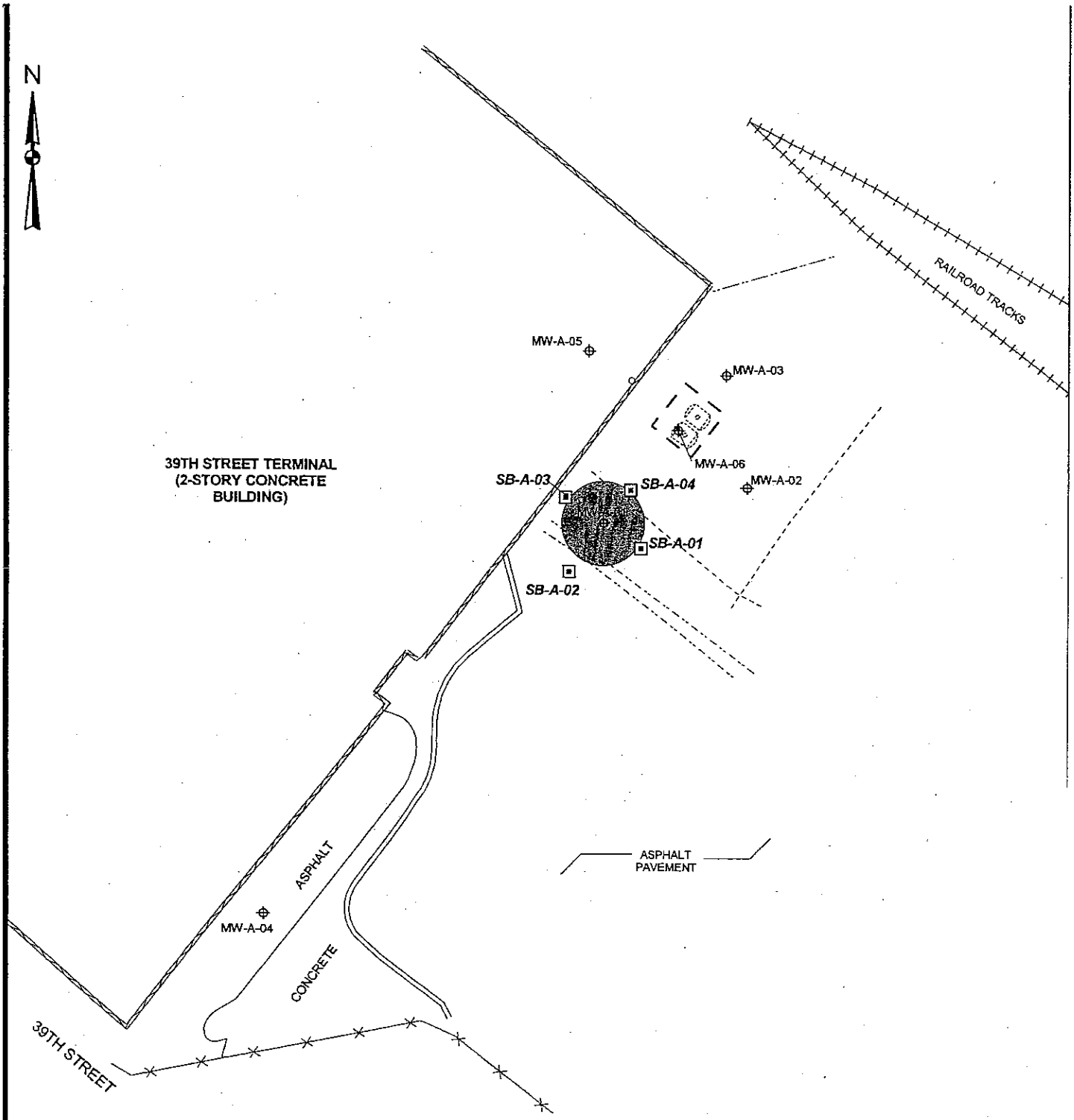
30 0 30 Feet

J:\35682.00\db\GIS\b854a.apr (AREAS B, C & D) GROUNDWATER CONTAMINATION/CONTOURS
9/27/2001

URS

BROOKLYN MARINE TERMINAL
EXTENT OF GROUNDWATER CONTAMINATION
(AREAS B, C & D)

FIGURE 5



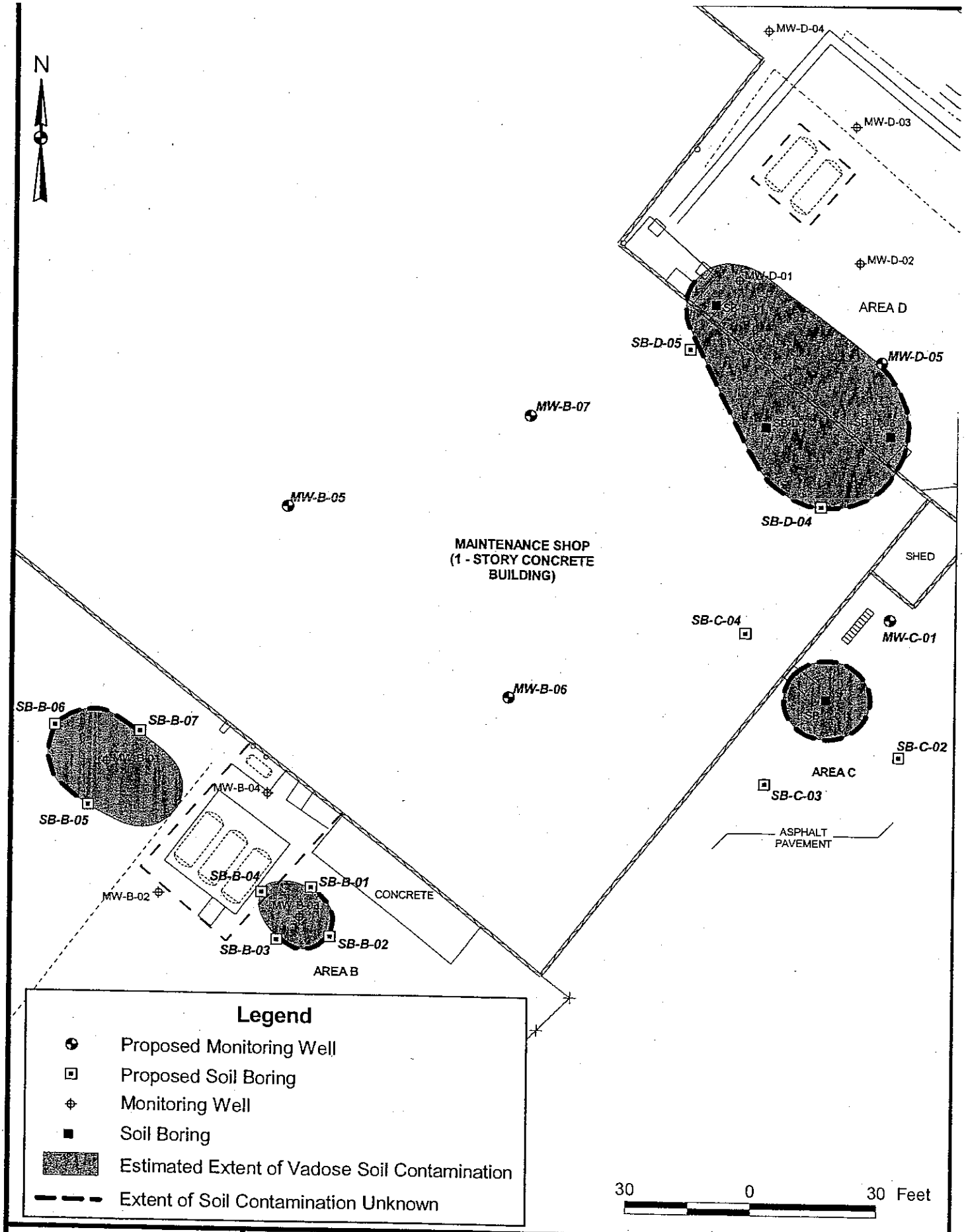
Legend

- Proposed Soil Boring
- Monitoring Well
- Estimated Extent of Vadose Soil Contamination

30 0 30 Feet

URS	BROOKLYN MARINE TERMINAL PROPOSED SOIL BORING LOCATIONS (AREA A)	FIGURE 6

J:\35682.00\dt\GIS\b854a.apr (AREA A) PROPOSED SOIL BORING LOCATIONS
10/4/2001



J:\35682.00\db\GIS\b854a.apr (AREAS B, C, & D) PROPOSED LOCATIONS
10/4/2001

URS	BROOKLYN MARINE TERMINAL PROPOSED MONITORING WELL AND SOIL BORING LOCATIONS (AREAS B, C & D)	FIGURE 7

URS

K2-03-1003

2 of 4

Responded by phone; requested that an additional soil boring be advanced as close as poss. to SB-C-01 before considering my NFA for soil. -JK 10/21/03

NYS DEC REGION 2 RECEIVED 2002 NOV 27 PM 1:48

November 25, 2002

Mr. Jonathan Kolleeny
Engineering Geologist I
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Spill Prevention and Response
30-20 Thomson Avenue
Long Island City, New York 11101

RE: NYCDDC UST Program
Contract PW 348-23
Results of Field Investigation
NYC Development Corporation
Brooklyn Marine Terminal

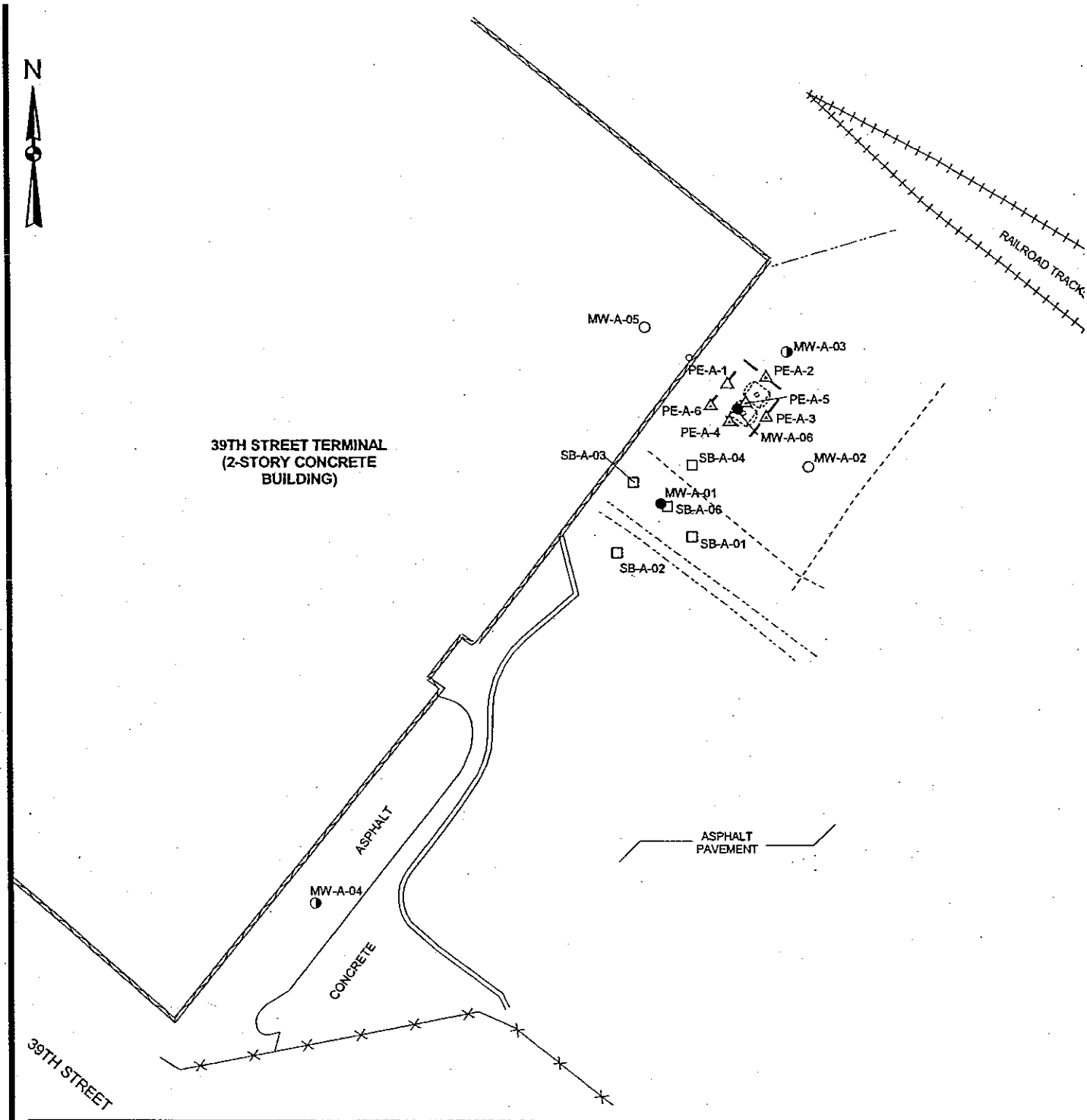
Dear Mr. Kolleeny:

This letter presents the results of the latest field investigation performed by URS Corporation (URS) at the Brooklyn Marine Terminal (Figure 1). The scope of the investigation, presented in our letter to the New York State Department of Environmental Conservation (NYSDEC) dated June 27, 2002, included the advancement of six soil borings to better delineate the areas of vadose zone soil contamination. Based on the analytical results of this investigation, URS recommends no further action for vadose zone soil contamination at the site. The application of oxygen releasing compounds (ORC) remains the best alternative to treat dissolved phase groundwater contamination. URS recommends the placement of ORC socks into existing monitoring wells. Details are presented below.

This is the second field investigation performed by URS at this site over the past year. The first investigation was completed in February 2002 and was intended to refine the volume of soil to be excavated; however, the soil analytical data showed no evidence of contamination. A review of available data indicated that the soil contamination detected in 1998 and 2000 may have biodegraded or may not be considered contaminated when re-sampled, submitted for totals analysis, and the results compared to the Technical and Administrative Guidance Memorandum (TAGM) #4046 clean-up criteria. Previous data was compared to the NYSDEC's *STARS* Memo #1 toxicity characteristic leaching procedure (TCLP) guidance values because the samples were analyzed by TCLP.

On July 16, 2002 and August 19, 2002, URS advanced six soil borings: SB-A-06 in Area A, SB-B-08 in Area B, SB-C-05 in Area C, and SB-D-06, SB-D-07, and SB-D-08 in Area D. The boring locations are shown on Figures 2, 3, and 4. The borings were advanced to approximately one foot into the water table or nine feet below ground surface (bgs). As a precaution, a post-hole digger was used to advance the borings the first five feet. A two-foot split-spoon sampler was used the remaining length of the borehole. The entire borehole was screened for volatile organic compounds (VOCs) using a photoionization detector (PID). One soil sample was collected from each borehole from a depth of 5 to 7 feet bgs; an additional soil sample was collected from SB-D-06 at 7 to 9 feet bgs. The samples were analyzed for NYSDEC *STARS* VOCs and naphthalene using U.S.

URS Corporation
282 Delaware Avenue
Buffalo, NY 14202-1805
Tel: 716.856.5636
Fax: 716.856.2545



Legend

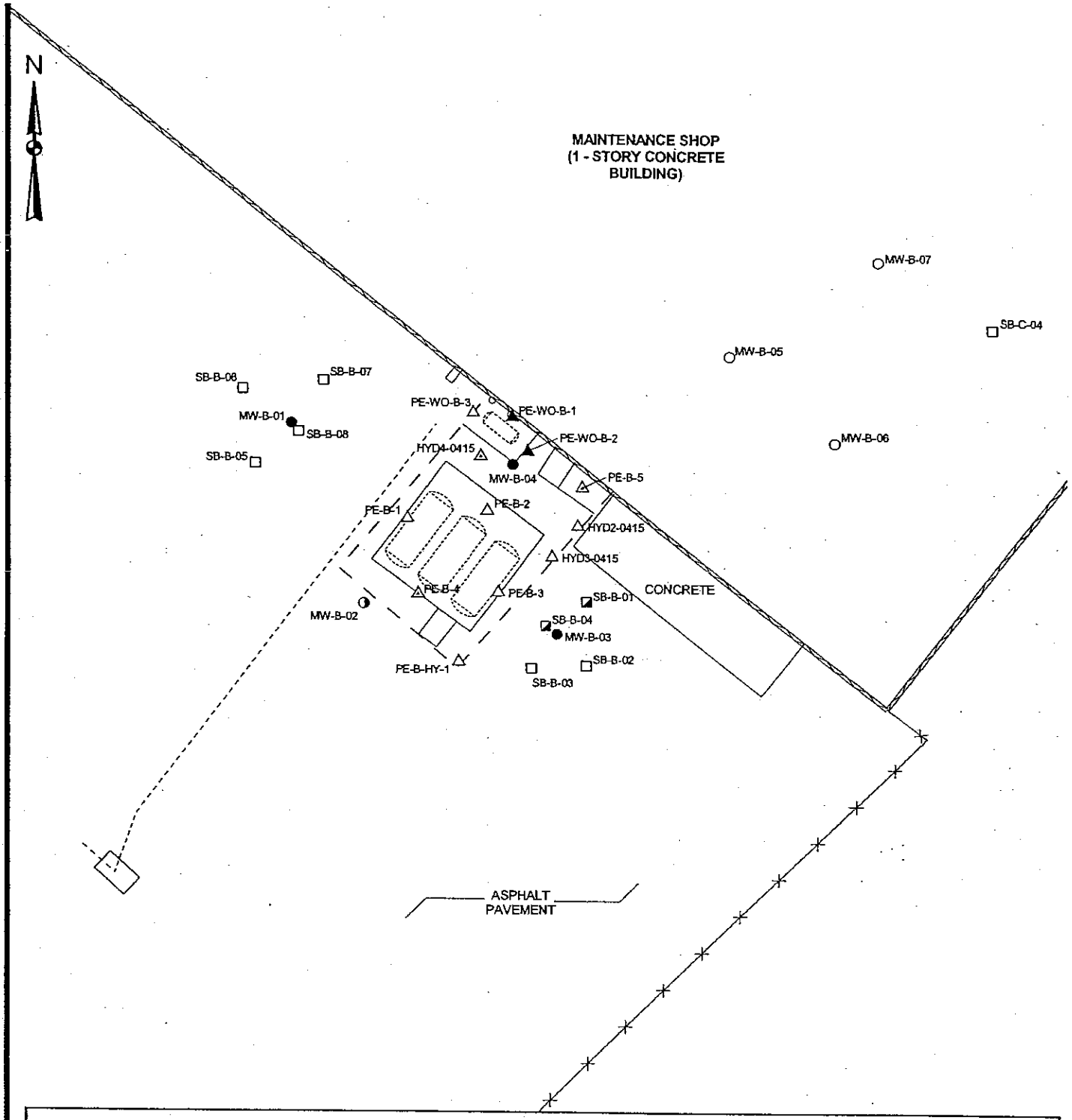
- ○ Monitoring Well
- □ Soil Boring
- △ Closure Sample
- ○ , □ , △ No Compounds Detected
- ◑ , ◪ , ◬ No Compounds Exceed Criteria
- ● , ■ , ▲ At Least One Compound Exceeds Criteria

Estimated Extent of Vadose Zone Soil Contamination

30 0 30 Feet

URS	BROOKLYN MARINE TERMINAL EXTENT OF VADOSE ZONE SOIL CONTAMINATION (AREA A)	FIGURE 2

N:\11170471.00000\BIG\SIb854b.apr (AREA A) SOIL CONTAMINATION
11/18/2002



Legend

- ○ Monitoring Well
- □ Soil Boring
- △ Closure Sample
- ○ , □ , △ No Compounds Detected
- ◑ , ◪ , ◬ No Compounds Exceed Criteria
- ● , ■ , ▲ At Least One Compound Exceeds Criteria

Estimated Extent of Vadose Zone Soil Contamination

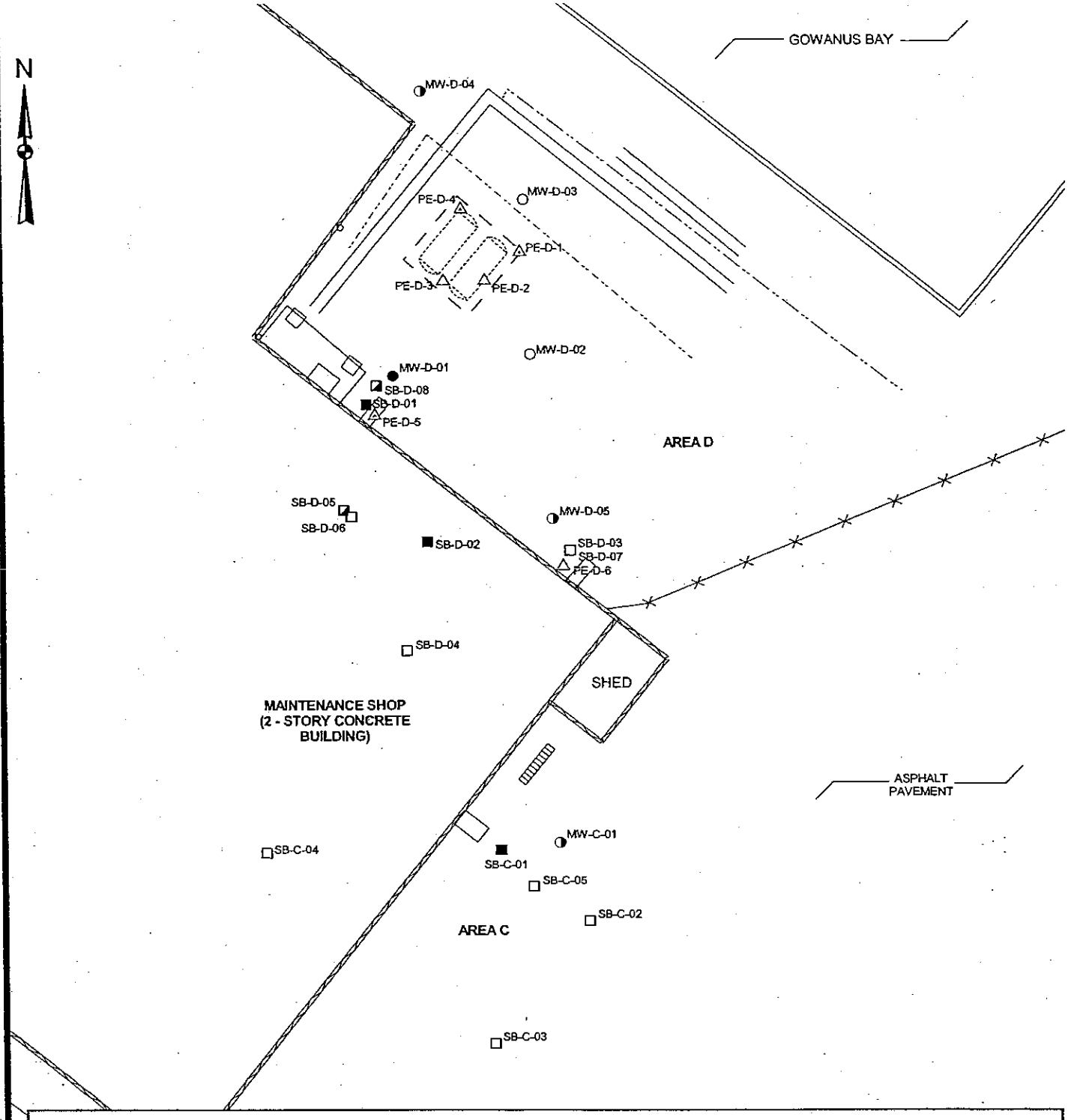
25 0 25 Feet

N:\11117047\1.00000\DBIGIS\b854b.apr (AREA B) SOIL CONTAMINATION
1/18/2002

URS

BROOKLYN MARINE TERMINAL
EXTENT OF VADOSE ZONE SOIL CONTAMINATION
(AREA B)

FIGURE 3



Legend

- ○ Monitoring Well
- □ Soil Boring
- △ Closure Sample
- ○ , □ , △ No Compounds Detected
- ◑ , ◪ , ◬ No Compounds Exceed Criteria
- ● , ■ , ▲ At Least One Compound Exceeds Criteria

Estimated Extent of Vadose Zone Soil Contamination

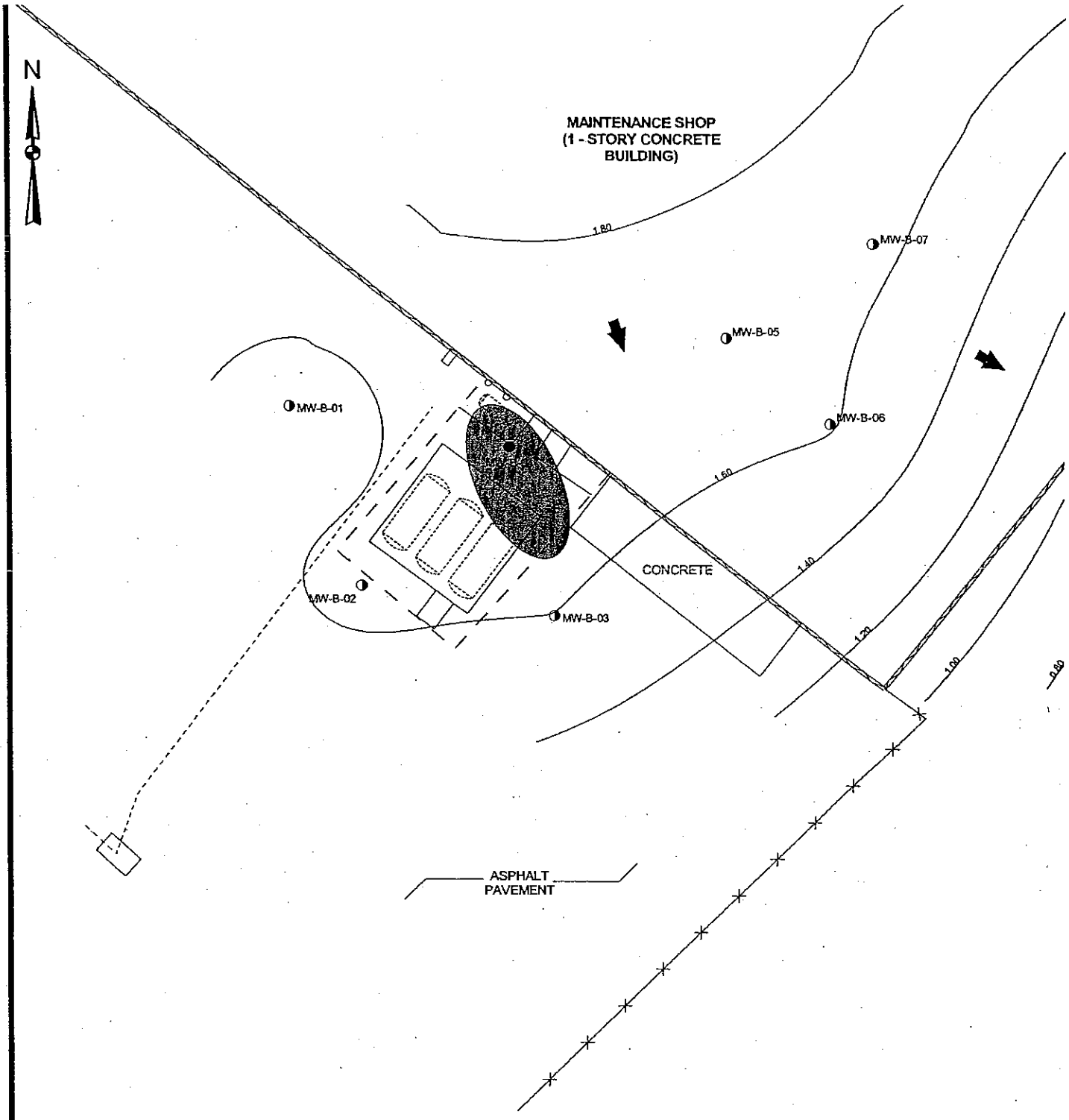
30 0 30 Feet

N:\11170471.00000\DB\GIS\b654b.apr (AREAS C & D) SOIL CONTAMINATION
11/18/2002

URS

BROOKLYN MARINE TERMINAL
EXTENT OF VADOSE ZONE SOIL CONTAMINATION
(AREAS C & D)

FIGURE 4



Legend

- Monitoring Well
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 1.00 Groundwater Elevation Contour (2/19/02)
- Groundwater Flow Direction (2/19/02)
- Estimated Extent of Groundwater Contamination

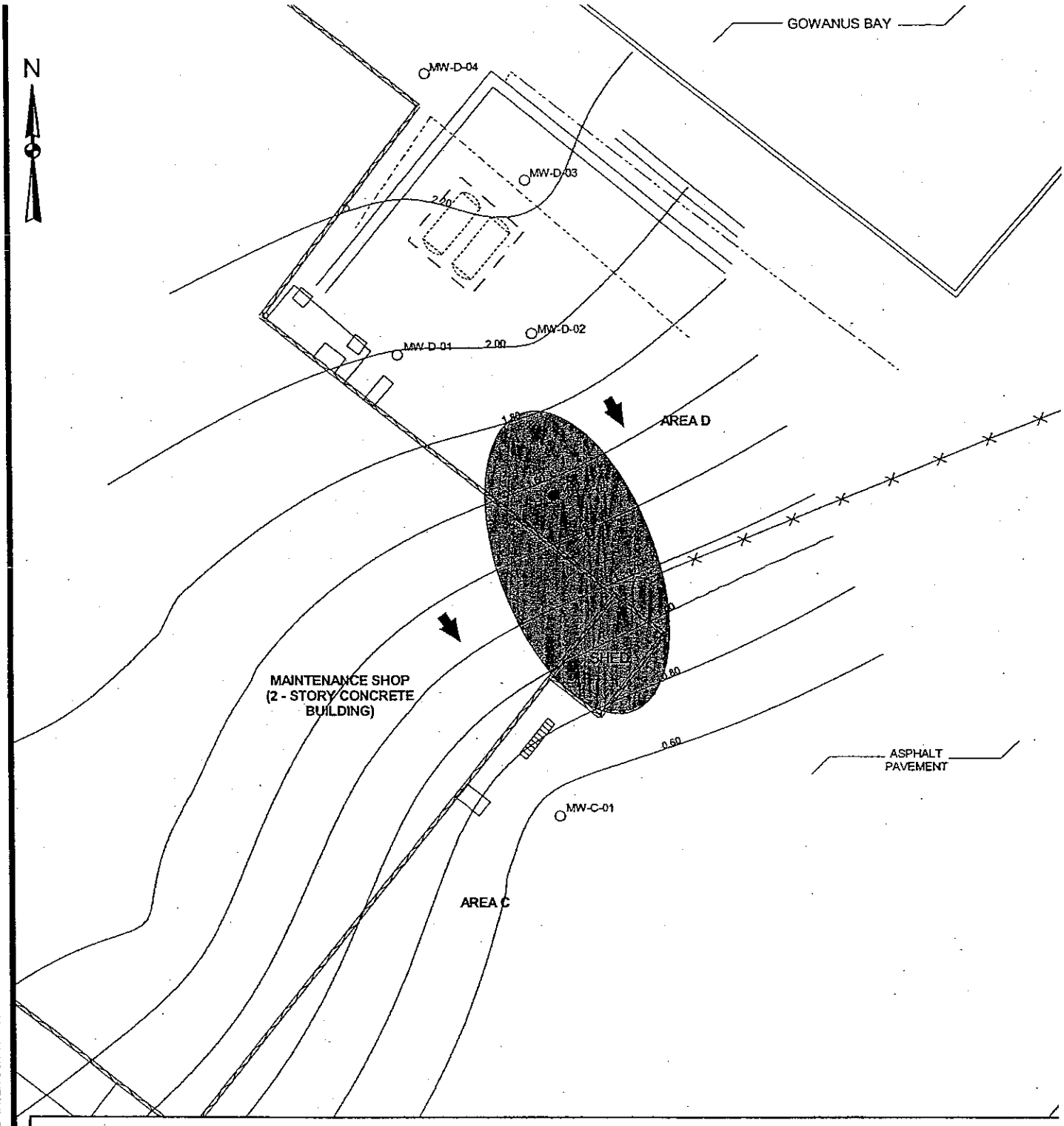
25 0 25 Feet

N:\11170471.00000\DBI\GIS\b854b.apr (AREA B) FEB 02 GROUNDWATER CONTAMINATION
11/27/2002

URS

BROOKLYN MARINE TERMINAL
EXTENT OF GROUNDWATER CONTAMINATION
(FEBRUARY 2002 - AREA B)

FIGURE 5



Legend

- Monitoring Well
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 1.00 — Groundwater Elevation Contour (2/19/02)
- Groundwater Flow Direction (2/19/02)
- Estimated Extent of Groundwater Contamination

30 0 30 Feet

N:\11170471.00000\DBGIS\b854b.apr (AREAS C&D) FEB 02 GROUNDWATER CONTAMINATION
11/27/2002

URS

BROOKLYN MARINE TERMINAL
EXTENT OF GROUNDWATER CONTAMINATION
(FEBRUARY 2002 - AREAS C & D)

FIGURE 6

TABLE 1 - AREA A
BROOKLYN MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Sample ID:			MW-A-01	MW-A-01	MW-A-02	MW-A-02	MW-A-03
Depth Interval (ft):			4.0-6.0	6.0-8.0	4.0-6.0	6.0-8.0	4.0-6.0
Date Sampled:			08/10/00	08/10/00	08/10/00	08/10/00	08/09/00
Parameter	Units	Criteria*					
TCLP Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND J
Benzene	UG/L	1	ND	ND	ND	ND	ND J
Ethylbenzene	UG/L	5	1400	2.7	ND	ND	ND J
Toluene	UG/L	5	ND	ND	ND	ND	ND J
Total Xylenes	UG/L	5	8400	17.2	ND	ND	ND J
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND J
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND J
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND J
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND J
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND J
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND J
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND J
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND J
Total TCLP Volatiles	UG/L		9800	19.9	ND	ND	ND
TCLP Semivolatiles							
Naphthalene	UG/L	10	44	ND	ND	ND	1.2 J
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total TCLP Semivolatiles	UG/L		44	ND	ND	ND	1.2

* - NYSDEC STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.
Concentration exceeds criteria.
R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-A-*") AND ((tblRES.UNITS)="ug/l"))

Checked By: 10/16/00 JJL, 11/2/00 JJL, 11/28/00 JJL

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8/24/02

TABLE 1 - AREA A
BROOKLYN MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Sample ID:			MW-A-03	MW-A-04	MW-A-04	MW-A-05	MW-A-05
Depth Interval (ft):			6.0-8.0	4.0-6.0	6.0-8.0	4.0-6.0	6.0-8.0
Date Sampled:			08/09/00	08/11/00	08/11/00	09/19/00	09/19/00
Parameter	Units	Criteria*					
TCLP Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	1.6 J	1.4 J	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	1.1	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total TCLP Volatiles	UG/L		1.1	1.6	1.4	ND	ND
TCLP Semivolatiles							
Naphthalene	UG/L	10	1.2	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	1.1 J	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total TCLP Semivolatiles	UG/L		1.2	ND	1.1	ND	ND

* - NYSDEC STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.
[redacted] Concentration exceeds criteria.
R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-A-*") AND ((tblRES.UNITS)="ug/l"))

Checked By: 10/16/00 JJL, 11/2/00 JJL, 11/28/00 JJL

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8/24/02

TABLE 1 - AREA A
BROOKLYN MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Sample ID:			MW-A-06
Depth Interval (ft):			2.0-8.0
Date Sampled:			08/08/00
Parameter	Units	Criteria*	
TCLP Volatiles			
Methyl t-Butyl Ether	UG/L	10	ND
Benzene	UG/L	1	ND
Ethylbenzene	UG/L	5	1.5
Toluene	UG/L	5	ND
Total Xylenes	UG/L	5	9.5
Isopropylbenzene	UG/L	5	ND
n-Propylbenzene	UG/L	5	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND
tert-Butylbenzene	UG/L	5	ND
1,2,4-Trimethylbenzene	UG/L	5	2.1
1,3,5-Trimethylbenzene	UG/L	5	ND
sec-Butylbenzene	UG/L	5	ND
n-Butylbenzene	UG/L	5	ND
Total TCLP Volatiles	UG/L		13.1
TCLP Semivolatiles			
Naphthalene	UG/L	10	ND
Acenaphthene	UG/L	20	ND
Anthracene	UG/L	50	ND
Benzo(a)anthracene	UG/L	0.002	ND
Benzo(a)pyrene	UG/L	0.002	ND
Benzo(b)fluoranthene	UG/L	0.002	ND
Benzo(k)fluoranthene	UG/L	0.002	ND
Chrysene	UG/L	0.002	ND
Dibenz(a,h)anthracene	UG/L	50	ND
Fluoranthene	UG/L	50	ND
Fluorene	UG/L	50	ND
Phenanthrene	UG/L	50	ND
Pyrene	UG/L	50	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND
Total TCLP Semivolatiles	UG/L		ND

* - NYSDEC STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-A-*") AND ((tblRES.UNITS)="ug/l"))

Checked By: 10/16/00 JJL, 11/2/00 JJL, 11/28/00 JJL

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8/24/02

TABLE 1A - AREA A
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			PE-A-1	PE-A-2	PE-A-3	PE-A-4	PE-A-5
Depth Interval (ft):			6.0-6.0	6.0-6.0	6.0-6.0	6.0-6.0	6.0-6.0
Date Sampled:			03/20/98	03/20/98	03/20/98	03/20/98	03/20/98
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	40	46	39	ND
Total Xylenes	UG/KG	1200	ND	ND	ND	310	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	17	ND	29	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	42	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	230	ND	620	24
1,3,5-Trimethylbenzene	UG/KG	3300	ND	180	ND	310	65
sec-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		ND	509	46	1308	89
Semivolatiles							
Naphthalene	UG/KG	13000	160 J	240	830	750	400
Acenaphthene	UG/KG	50000	ND	54 J	37	ND	ND
Anthracene	UG/KG	50000	ND	210 J	77	ND	ND
Benzo(a)anthracene	UG/KG	224	27 J	700	130	ND	60 J
Benzo(a)pyrene	UG/KG	61	ND	700	ND	ND	ND
Benzo(b)fluoranthene	UG/KG	220	ND	200 J	ND	ND	ND
Benzo(k)fluoranthene	UG/KG	220	ND	300 J	ND	ND	ND
Chrysene	UG/KG	400	ND	820	130	ND	67 J
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	ND	ND
Fluoranthene	UG/KG	50000	ND	1700	280	ND	ND
Fluorene	UG/KG	50000	ND	110 J	67	ND	ND
Phenanthrene	UG/KG	50000	26 J	1200	380	110 J	ND
Pyrene	UG/KG	50000	ND	1700	340	ND	ND
Benzo(g,h,i)perylene	UG/KG	50000	ND	150 J	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	ND	190 J	ND	ND	ND
Total Semivolatiles	UG/KG		213	8274	2271	860	527

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "PE-A-*")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-A-*"))

Checked By: ?, 2/13/02 JJL

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8/26/02

TABLE 1A - AREA A
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			PE-A-6	SB-A-01	SB-A-01	SB-A-02	SB-A-02
Depth Interval (ft):			6.0-6.0	1.0-3.0	5.0-7.0	1.0-3.0	5.0-7.0
Date Sampled:			03/20/98	01/10/02	01/10/02	01/10/02	01/10/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	ND	ND	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	26	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	260	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	370	ND	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	26	ND	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		682	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/KG	13000	1400	97 J	38 J	100 J	140 J
Acenaphthene	UG/KG	50000	290 J	ND	63 J	200 J	270 J
Anthracene	UG/KG	50000	410	95 J	93 J	370	580
Benzo(a)anthracene	UG/KG	224	550	240 J	370	1300	1700
Benzo(a)pyrene	UG/KG	61	590	160 J	310 J	1100	1400
Benzo(b)fluoranthene	UG/KG	220	180 J	310 J	440	1500	1800
Benzo(k)fluoranthene	UG/KG	220	270 J	95 J	190 J	600	830
Chrysene	UG/KG	400	610	250 J	420	1400	1400
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	43 J	47 J
Fluoranthene	UG/KG	50000	1300	560	820	2300	3300
Fluorene	UG/KG	50000	300 J	ND	ND	190 J	260 J
Phenanthrene	UG/KG	50000	1700	290 J	410	1700	2200
Pyrene	UG/KG	50000	2300	410	730	2300	2700
Benzo(g,h,i)perylene	UG/KG	50000	ND	130 J	140 J	440	450
Indeno(1,2,3-cd)pyrene	UG/KG	3200	ND	100 J	140 J	440	510
Total Semivolatiles	UG/KG		9900	2737	4164	13983	17587

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "PE-A-*")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-A-*"))

TABLE 1A - AREA A
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			SB-A-03	SB-A-03	SB-A-04	SB-A-04	SB-A-06
Depth Interval (ft):			1.0-3.0	5.0-7.0	1.0-3.0	5.0-7.0	5.0-7.0
Date Sampled:			01/10/02	01/10/02	01/10/02	01/10/02	07/16/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	R	ND J	ND J	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	R	ND J	ND J	ND	ND
Isopropylbenzene	UG/KG	2300	R	ND J	ND J	ND	ND
n-Propylbenzene	UG/KG	3700	R	ND J	ND J	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	R	ND J	ND J	ND	ND
tert-Butylbenzene	UG/KG	10000	R	ND J	ND J	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	R	ND J	ND J	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	R	ND J	ND J	ND	ND
sec-Butylbenzene	UG/KG	10000	R	ND J	ND J	ND	ND
n-Butylbenzene	UG/KG	10000	R	ND J	ND J	ND	ND
Total Volatiles	UG/KG		ND	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/KG	13000	66 J	ND	ND	ND	ND
Acenaphthene	UG/KG	50000	110 J	ND	ND	ND	NA
Anthracene	UG/KG	50000	190 J	48 J	ND	74 J	NA
Benzo(a)anthracene	UG/KG	224	860	380	380	220 J	NA
Benzo(a)pyrene	UG/KG	61	760	310 J	240 J	200 J	NA
Benzo(b)fluoranthene	UG/KG	220	1300	350 J	240 J	280 J	NA
Benzo(k)fluoranthene	UG/KG	220	350 J	170 J	110 J	130 J	NA
Chrysene	UG/KG	400	890	420	570	230 J	NA
Dibenz(a,h)anthracene	UG/KG	14.3	38 J	ND	ND	ND	NA
Fluoranthene	UG/KG	50000	1700	510	240 J	570	NA
Fluorene	UG/KG	50000	100 J	ND	ND	43 J	NA
Phenanthrene	UG/KG	50000	1000	190 J	95 J	550	NA
Pyrene	UG/KG	50000	1500	620	400	450	NA
Benzo(g,h,i)perylene	UG/KG	50000	260 J	71 J	110 J	62 J	NA
Indeno(1,2,3-cd)pyrene	UG/KG	3200	280 J	77 J	74 J	57 J	NA
Total Semivolatiles	UG/KG		9404	3146	2459	2866	ND

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "PE-A-*")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-A-*"))

Checked By: ?, 2/13/02 JJL

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TABLE 2 - AREA B
BROOKLYN MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Sample ID:			MW-B-01	MW-B-01	MW-B-02	MW-B-02	MW-B-03
Depth Interval (ft):			2.0-4.0	4.0-6.0	2.0-4.0	4.0-6.0	2.0-4.0
Date Sampled:			08/14/00	08/14/00	08/15/00	08/15/00	08/14/00
Parameter	Units	Criteria*					
TCLP Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	8.2	ND	ND	ND
Benzene	UG/L	1	ND	1.5	ND	ND	1.2
Ethylbenzene	UG/L	5	98	4.2	ND	ND	1.3
Toluene	UG/L	5	ND	11	ND	ND	ND
Total Xylenes	UG/L	5	520	24.4	1.4 J	3.2 J	7.7
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	1.9	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	1.1	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	14	2.3	3	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	5.8	1.2	1.2	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	1.9	ND	ND	ND
Total TCLP Volatiles	UG/L		618	74	4.9	7.4	10.2
TCLP Semivolatiles							
Naphthalene	UG/L	10	1.1	7.1	2	2.2	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total TCLP Semivolatiles	UG/L		1.1	7.1	2	2.2	ND

* - NYSDEC STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-*") AND ((tblRES.UNITS)="ug/l"))

Checked By: 11/2/00 JJL

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TABLE 2 - AREA B
BROOKLYN MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Sample ID:			MW-B-03	MW-B-04	MW-B-04
Depth Interval (ft):			4.0-6.0	4.0-6.0	6.0-8.0
Date Sampled:			08/14/00	08/16/00	08/16/00
Parameter	Units	Criteria*			
TCLP Volatiles					
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND
Benzene	UG/L	1	1.9	ND	2.6
Ethylbenzene	UG/L	5	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND
Total Xylenes	UG/L	5	1.5 J	ND	3.3
Isopropylbenzene	UG/L	5	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	3.9	ND	1.8
1,3,5-Trimethylbenzene	UG/L	5	1.2	ND	1
sec-Butylbenzene	UG/L	5	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND
Total TCLP Volatiles	UG/L		8.5	ND	8.7
TCLP Semivolatiles					
Naphthalene	UG/L	10	1.8	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND
Benzo(a)pyrene	UG/L	0.002	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND
Total TCLP Semivolatiles	UG/L		1.8	ND	ND

* - NYSDEC STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.
Concentration exceeds criteria.
R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-*") AND ((tblRES.UNITS)="ug/l"))

Checked By: 11/2/00 JJL

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TABLE 2A - AREA B
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			HYD2-0415	HYD3-0415	HYD4-0415	MW-B-05	MW-B-05
Depth Interval (ft):			7.5-7.5	7.5-7.5	7.5-7.5	2.0-4.0	6.0-8.0
Date Sampled:			04/15/98	04/15/98	04/15/98	01/15/02	01/15/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	ND	ND	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	14	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		ND	ND	ND	ND	ND
Semivolatiles			ND	ND	14	ND	ND
Naphthalene	UG/KG	13000	500	70 J	21 J	ND	ND
Acenaphthene	UG/KG	50000	75 J	20 J	11 J	ND	ND
Anthracene	UG/KG	50000	61 J	88 J	48 J	ND	ND
Benzo(a)anthracene	UG/KG	224	190 J	450	200 J	160 J	ND
Benzo(a)pyrene	UG/KG	61	220 J	560	250 J	140 J	ND
Benzo(b)fluoranthene	UG/KG	220	82 J	550	96	200 J	ND
Benzo(k)fluoranthene	UG/KG	220	88 J	340	280	55 J	ND
Chrysene	UG/KG	400	230 J	570	270 J	150 J	ND
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	ND	ND
Fluoranthene	UG/KG	50000	480	810	460	260 J	ND
Fluorene	UG/KG	50000	190 J	22 J	11 J	ND	ND
Phenanthrene	UG/KG	50000	440	320	210 J	170 J	ND
Pyrene	UG/KG	50000	340	780	380	240 J	ND
Benzo(g,h,i)perylene	UG/KG	50000	91 J	170 J	68 J	76 J	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	110 J	200 J	82 J	70 J	ND
Total Semivolatiles	UG/KG		3097	4950	2387	1521	ND

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "HYD*-0415")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-B-**")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-05")) OR (((tblRES.SITEID)="854") AND

Checked By: ?, 2/18/02 JJL, 2/21/02 JJL, 3/18/02

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TABLE 2A - AREA B
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			MW-B-06	MW-B-06	MW-B-07	MW-B-07	PE-B-1
Depth Interval (ft):			2.0-4.0	6.0-8.0	2.0-4.0	4.0-6.0	7.5-7.5
Date Sampled:			01/15/02	01/15/02	01/21/02	01/21/02	03/19/98
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	ND	ND	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		ND	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/KG	13000	ND	ND	ND	ND	51 J
Acenaphthene	UG/KG	50000	ND	ND	ND	ND	ND
Anthracene	UG/KG	50000	ND	ND	56 J	ND	ND
Benzo(a)anthracene	UG/KG	224	94 J	ND	320 J	ND	ND
Benzo(a)pyrene	UG/KG	61	96 J	ND	300 J	ND	ND
Benzo(b)fluoranthene	UG/KG	220	120 J	ND	400	ND	ND
Benzo(k)fluoranthene	UG/KG	220	47 J	ND	110 J	ND	ND
Chrysene	UG/KG	400	120 J	ND	320 J	ND	ND
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	ND	ND
Fluoranthene	UG/KG	50000	150 J	ND	560	ND	ND
Fluorene	UG/KG	50000	ND	ND	ND	ND	ND
Phenanthrene	UG/KG	50000	58 J	ND	280 J	ND	ND
Pyrene	UG/KG	50000	150 J	39 J	590	ND	ND
Benzo(g,h,i)perylene	UG/KG	50000	50 J	ND	180 J	ND	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	44 J	ND	170 J	ND	ND
Total Semivolatiles	UG/KG		929	39	3286	ND	51

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "HYD*-0415")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-B-*")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-05")) OR (((tblRES.SITEID)="854") AND

Checked By: ?, 2/18/02 JJL, 2/21/02 JJL, 3/18/02

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TABLE 2A - AREA B
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			PE-B-2	PE-B-3	PE-B-4	PE-B-5	PE-B-HY-1
Depth Interval (ft):			7.5-7.5	7.5-7.5	7.5-7.5	1.0-1.0	7.5-7.5
Date Sampled:			03/19/98	03/19/98	03/19/98	03/25/98	03/31/98
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	ND	ND	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND	53	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	20	16	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		ND	ND	20	107	ND
Semivolatiles							
Naphthalene	UG/KG	13000	ND	26 J	31 J	240	ND
Acenaphthene	UG/KG	50000	ND	39 J	ND	46 J	ND
Anthracene	UG/KG	50000	ND	50 J	ND	27 J	ND
Benzo(a)anthracene	UG/KG	224	75 J	190 J	93 J	100 J	ND
Benzo(a)pyrene	UG/KG	61	73 J	210 J	ND	ND	ND
Benzo(b)fluoranthene	UG/KG	220	ND	90 J	ND	60 J	ND
Benzo(k)fluoranthene	UG/KG	220	ND	82 J	ND	59 J	ND
Chrysene	UG/KG	400	63 J	260 J	100 J	73 J	ND
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	ND	ND
Fluoranthene	UG/KG	50000	ND	470	190 J	45 J	ND
Fluorene	UG/KG	50000	ND	28 J	ND	97 J	ND
Phenanthrene	UG/KG	50000	ND	500	ND	78 J	ND
Pyrene	UG/KG	50000	ND	560	230 J	ND	ND
Benzo(g,h,i)perylene	UG/KG	50000	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	ND	ND	ND	ND	ND
Total Semivolatiles	UG/KG		211	2505	644	825	ND

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.
R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "HYD*-0415")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-B-*")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-05")) OR (((tblRES.SITEID)="854") AND

Checked By: ?, 2/18/02 JJL, 2/21/02 JJL, 3/18/02

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TABLE 2A - AREA B
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			PE-WO-B-1	PE-WO-B-2	PE-WO-B-3	SB-B-01	SB-B-01
Depth Interval (ft):			7.5-7.5	7.5-7.5	7.5-7.5	2.0-4.0	6.0-8.0
Date Sampled:			03/24/98	03/24/98	03/24/98	01/14/02	01/14/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	470	180	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	1.1
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	5.1
Toluene	UG/KG	1500	26	ND	ND	1.4	7.8
Total Xylenes	UG/KG	1200	ND	ND	ND	6.2	44
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND	1.8
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND	1.1
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	16	ND	ND	4.1	17
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND	2.1	8.0
sec-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	1.7
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		512	180	ND	13.8	87.6
Semivolatiles							
Naphthalene	UG/KG	13000	120	32 J	110 J	63 J	130 J
Acenaphthene	UG/KG	50000	600	73 J	520	ND	ND
Anthracene	UG/KG	50000	1700	100 J	950	ND	ND
Benzo(a)anthracene	UG/KG	224	2100	250 J	840	130 J	92 J
Benzo(a)pyrene	UG/KG	61	1800	320 J	730	130 J	89 J
Benzo(b)fluoranthene	UG/KG	220	1000	200 J	800	150 J	130 J
Benzo(k)fluoranthene	UG/KG	220	1300	110 J	600	71 J	ND
Chrysene	UG/KG	400	2200	310 J	960	130 J	96 J
Dibenz(a,h)anthracene	UG/KG	14.3	120 J	ND	ND	ND	ND
Fluoranthene	UG/KG	50000	3600	760	2500	180 J	140 J
Fluorene	UG/KG	50000	850	41 J	560	ND	ND
Phenanthrene	UG/KG	50000	4100	470	2800	89 J	76 J
Pyrene	UG/KG	50000	3100	620	1800	180 J	130 J
Benzo(g,h,i)perylene	UG/KG	50000	300 J	ND	150 J	59 J	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	350	ND	180 J	57 J	ND
Total Semivolatiles	UG/KG		23240	3286	13500	1239	883

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "HYD*-0415")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-B-**")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-05")) OR (((tblRES.SITEID)="854") AND

Checked By: ?, 2/18/02 JJL, 2/21/02 JJL, 3/18/02

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TABLE 2A - AREA B
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			SB-B-02	SB-B-02	SB-B-03	SB-B-03	SB-B-04
Depth Interval (ft):			2.0-4.0	6.0-8.0	2.0-4.0	6.0-8.0	2.0-4.0
Date Sampled:			01/14/02	01/14/02	01/14/02	01/14/02	01/14/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND	5.7
Benzene	UG/KG	60	ND	ND	ND	ND	6.4
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND	4.3
Total Xylenes	UG/KG	1200	ND	ND	ND	ND	3.5
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		ND	ND	ND	ND	19.9
Semivolatiles							
Naphthalene	UG/KG	13000	60 J	ND	82 J	140 J	ND
Acenaphthene	UG/KG	50000	170 J	ND	280 J	290 J	ND
Anthracene	UG/KG	50000	1200	ND	800	830	65 J
Benzo(a)anthracene	UG/KG	224	5000	72 J	1000	1200	310 J
Benzo(a)pyrene	UG/KG	61	4300	73 J	840	1000	260 J
Benzo(b)fluoranthene	UG/KG	220	6600	84 J	960	1400	320 J
Benzo(k)fluoranthene	UG/KG	220	2100	39 J	330 J	480	93 J
Chrysene	UG/KG	400	4100	75 J	820	1100	270 J
Dibenz(a,h)anthracene	UG/KG	14.3	86 J	ND	ND	ND	ND
Fluoranthene	UG/KG	50000	9600 D	110 J	2500	3200	520
Fluorene	UG/KG	50000	230 J	ND	330 J	350 J	ND
Phenanthrene	UG/KG	50000	4400	43 J	2600	2800	260 J
Pyrene	UG/KG	50000	7300 D	100 J	2000	2400	500
Benzo(g,h,i)perylene	UG/KG	50000	1100	ND	270 J	250 J	83 J
Indeno(1,2,3-cd)pyrene	UG/KG	3200	1100	ND	270 J	250 J	82 J
Total Semivolatiles	UG/KG		47346	596	13082	15690	2763

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "HYD*-0415")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-B-**")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-05")) OR (((tblRES.SITEID)="854") AND

Checked By: ?, 2/18/02 JJL, 2/21/02 JJL, 3/18/02

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TABLE 2A - AREA B
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			SB-B-04	SB-B-05	SB-B-05	SB-B-06	SB-B-06
Depth Interval (ft):			6.0-8.0	2.0-4.0	4.0-6.0	2.0-4.0	4.0-6.0
Date Sampled:			01/14/02	01/15/02	01/15/02	01/14/02	01/14/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	1.3	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	3.0	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	2.0 J	ND	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		6.3	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/KG	13000	ND	ND	ND	ND	ND
Acenaphthene	UG/KG	50000	ND	ND	ND	ND	ND
Anthracene	UG/KG	50000	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/KG	224	77 J	ND	44 J	100 J	ND
Benzo(a)pyrene	UG/KG	61	100 J	ND	42 J	100 J	ND
Benzo(b)fluoranthene	UG/KG	220	81 J	ND	53 J	130 J	ND
Benzo(k)fluoranthene	UG/KG	220	49 J	ND	ND	40 J	ND
Chrysene	UG/KG	400	64 J	ND	41 J	92 J	ND
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	ND	ND
Fluoranthene	UG/KG	50000	90 J	ND	69 J	170 J	ND
Fluorene	UG/KG	50000	ND	ND	ND	ND	ND
Phenanthrene	UG/KG	50000	45 J	ND	ND	89 J	ND
Pyrene	UG/KG	50000	77 J	ND	59 J	140 J	ND
Benzo(g,h,i)perylene	UG/KG	50000	ND	ND	ND	47 J	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	ND	ND	ND	37 J	ND
Total Semivolatiles	UG/KG		583	ND	308	945	ND

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "HYD*-0415")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-B-*")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-05")) OR (((tblRES.SITEID)="854") AND

Checked By: ?, 2/18/02 JJL, 2/21/02 JJL, 3/18/02

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TABLE 2A - AREA B
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			SB-B-07	SB-B-07	SB-B-08
Depth Interval (ft):			2.0-4.0	4.0-6.0	5.0-7.0
Date Sampled:			01/14/02	01/14/02	07/16/02
Parameter	Units	Criteria*			
Volatiles					
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND
Total Xylenes	UG/KG	1200	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND
Total Volatiles	UG/KG		ND	ND	ND
Semivolatiles					
Naphthalene	UG/KG	13000	ND	ND	ND
Acenaphthene	UG/KG	50000	ND	ND	NA
Anthracene	UG/KG	50000	ND	ND	NA
Benzo(a)anthracene	UG/KG	224	73 J	150 J	NA
Benzo(a)pyrene	UG/KG	61	56 J	170 J	NA
Benzo(b)fluoranthene	UG/KG	220	69 J	150 J	NA
Benzo(k)fluoranthene	UG/KG	220	ND	120 J	NA
Chrysene	UG/KG	400	57 J	160 J	NA
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	NA
Fluoranthene	UG/KG	50000	130 J	270 J	NA
Fluorene	UG/KG	50000	ND	ND	NA
Phenanthrene	UG/KG	50000	67 J	55 J	NA
Pyrene	UG/KG	50000	120 J	220 J	NA
Benzo(g,h,i)perylene	UG/KG	50000	ND	67 J	NA
Indeno(1,2,3-cd)pyrene	UG/KG	3200	ND	59 J	NA
Total Semivolatiles	UG/KG		572	1421	ND

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "HYD*-0415")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-B-*")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "MW-B-05")) OR (((tblRES.SITEID)="854") AND

Checked By: ?, 2/18/02 JJL, 2/21/02 JJL, 3/18/02

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TABLE 3 - AREA C
BROOKLYN MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Sample ID:			SB-C-01	SB-C-01
Depth Interval (ft):			2.0-4.0	6.0-8.0
Date Sampled:			08/04/00	08/04/00
Parameter	Units	Criteria*		
TCLP Volatiles				
Methyl t-Butyl Ether	UG/L	10	ND J	ND J
Benzene	UG/L	1	ND J	ND J
Ethylbenzene	UG/L	5	1.9 J	ND J
Toluene	UG/L	5	1.6 J	ND J
Total Xylenes	UG/L	5	12.2 J	ND J
Isopropylbenzene	UG/L	5	ND J	ND J
n-Propylbenzene	UG/L	5	ND J	ND J
p-Cymene (p-Isopropyltoluene)	UG/L	5	3 J	ND J
tert-Butylbenzene	UG/L	5	ND J	ND J
1,2,4-Trimethylbenzene	UG/L	5	12 J	ND J
1,3,5-Trimethylbenzene	UG/L	5	5.3 J	ND J
sec-Butylbenzene	UG/L	5	1.6 J	ND J
n-Butylbenzene	UG/L	5	ND J	ND J
Total TCLP Volatiles	UG/L		37.6	ND
TCLP Semivolatiles				
Naphthalene	UG/L	10	ND	ND
Acenaphthene	UG/L	20	ND	ND
Anthracene	UG/L	50	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND
Benzo(a)pyrene	UG/L	0.002	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND
Chrysene	UG/L	0.002	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND
Fluoranthene	UG/L	50	ND	ND
Fluorene	UG/L	50	ND	ND
Phenanthrene	UG/L	50	ND	ND
Pyrene	UG/L	50	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND
Total TCLP Semivolatiles	UG/L		ND	ND

* - NYSDEC STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.
Concentration exceeds criteria.
R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-C-*") AND ((tblRES.UNITS)="ug/l"))

Checked By: 10/16/00 JJL

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8/24/02

TABLE 3A - AREA C
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			MW-C-01	MW-C-01	SB-C-02	SB-C-02	SB-C-03
Depth Interval (ft):			3.0-5.0	5.0-7.0	2.0-4.0	6.0-8.0	2.0-4.0
Date Sampled:			01/16/02	01/16/02	01/16/02	01/16/02	01/16/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	1.5 J	ND	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		1.5	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/KG	13000	ND	ND	ND	ND	ND
Acenaphthene	UG/KG	50000	ND	ND	98 J	ND	ND
Anthracene	UG/KG	50000	ND	ND	240 J	ND	ND
Benzo(a)anthracene	UG/KG	224	ND	ND	750	ND	42 J
Benzo(a)pyrene	UG/KG	61	ND	ND	540	43 J	36 J
Benzo(b)fluoranthene	UG/KG	220	ND	ND	780	ND	46 J
Benzo(k)fluoranthene	UG/KG	220	ND	ND	200 J	ND	ND
Chrysene	UG/KG	400	ND	ND	640	ND	39 J
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	ND	ND
Fluoranthene	UG/KG	50000	ND	ND	1400	ND	65 J
Fluorene	UG/KG	50000	ND	ND	79 J	ND	ND
Phenanthrene	UG/KG	50000	ND	ND	1000	ND	ND
Pyrene	UG/KG	50000	ND	ND	1500	47 J	67 J
Benzo(g,h,i)perylene	UG/KG	50000	ND	ND	210 J	ND	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	ND	ND	200 J	ND	ND
Total Semivolatiles	UG/KG		ND	ND	7637	90	295

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID)="MW-C-01")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-C-*"))

Checked By: ?, 2/21/02 JJL

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8/26/02

TABLE 3A - AREA C
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			SB-C-03	SB-C-04	SB-C-04	SB-C-05
Depth Interval (ft):			6.0-8.0	4.0-6.0	6.0-8.0	5.0-7.0
Date Sampled:			01/16/02	01/15/02	01/15/02	07/16/02
Parameter	Units	Criteria*				
Volatiles						
Methyl t-Butyl Ether	UG/KG	120	ND	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	ND	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND
Total Volatiles	UG/KG		ND	ND	ND	ND
Semivolatiles						
Naphthalene	UG/KG	13000	ND	ND	ND	ND
Acenaphthene	UG/KG	50000	ND	ND	ND	NA
Anthracene	UG/KG	50000	ND	ND	ND	NA
Benzo(a)anthracene	UG/KG	224	74 J	38 J	85 J	NA
Benzo(a)pyrene	UG/KG	61	74 J	ND	160 J	NA
Benzo(b)fluoranthene	UG/KG	220	69 J	37 J	120 J	NA
Benzo(k)fluoranthene	UG/KG	220	ND	ND	46 J	NA
Chrysene	UG/KG	400	84 J	ND	85 J	NA
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	NA
Fluoranthene	UG/KG	50000	130 J	54 J	78 J	NA
Fluorene	UG/KG	50000	ND	ND	ND	NA
Phenanthrene	UG/KG	50000	99 J	ND	ND	NA
Pyrene	UG/KG	50000	170 J	55 J	120 J	NA
Benzo(g,h,i)perylene	UG/KG	50000	ND	ND	85 J	NA
Indeno(1,2,3-cd)pyrene	UG/KG	3200	ND	ND	51 J	NA
Total Semivolatiles	UG/KG		700	184	830	ND

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS Compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((tblRES.SITEID)="854") AND ((tblRES.LOCID)="MW-C-01")) OR (((tblRES.SITEID)="854") AND ((tblRES.LOCID) Like "SB-C-*"))

Checked By: ?, 2/21/02 JJL

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8/26/02

MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Parameter	Units	Criteria*	MW-D-01 2.0-4.0 08/22/00	MW-D-01 4.0-6.0 08/22/00	MW-D-02 2.0-4.0 08/23/00	MW-D-02 4.0-6.0 08/23/00	MW-D-03 2.0-4.0 08/22/00
TCLP Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND J	ND	ND	ND
Benzene	UG/L	1	ND	ND J	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND J	ND	ND	ND
Toluene	UG/L	5	ND	ND J	ND	ND	ND
Total Xylenes	UG/L	5	2 J	ND J	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND J	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	1.8 J	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	3.4 J	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND J	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	1.5	4.3 J	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	1.9 J	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	4.2 J	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	5.6 J	ND	ND	ND
Total TCLP Volatiles	UG/L		3.5	21.2	ND	ND	ND
TCLP Semivolatiles							
Naphthalene	UG/L	10	2.8	7	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total TCLP Semivolatiles	UG/L		2.8	7	ND	ND	ND

STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.
Concentration exceeds criteria.
ue.
ncentration detected below the quantitation limit, or due to quality control outliers.
cted ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
tion reported from a secondary dilution analysis.
analyzed for this analyte.
tected in associated method blank.
n be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.
16/00 JJL, 11/28/00 JJL

((FLDSAMPID Like "MW-D-*" Or FLDSAMPID Like "SB-D-*"))

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9/30/02

TABLE 4 - AREA D
BROOKLYN MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Sample ID:			MW-D-03	MW-D-04	MW-D-04	SB-D-01	SB-D-01
Depth Interval (ft):			4.0-6.0	2.0-4.0	4.0-6.0	2.0-4.0	4.0-6.0
Date Sampled:			08/22/00	08/21/00	08/21/00	08/04/00	08/04/00
Parameter	Units	Criteria*					
TCLP Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND J	ND	ND
Benzene	UG/L	1	ND	ND	ND J	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND J	9.4	16
Toluene	UG/L	5	ND	ND	ND J	3	1.7
Total Xylenes	UG/L	5	ND	1.5 J	3.6 J	16	15.1
Isopropylbenzene	UG/L	5	ND	ND	ND J	2.9	6.8
n-Propylbenzene	UG/L	5	ND	ND	ND J	7.1	14
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND J	4.6	5.2
tert-Butylbenzene	UG/L	5	ND	ND	ND J	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	2.2	2 J	100	75
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND J	16	13
sec-Butylbenzene	UG/L	5	ND	ND	ND J	5.5	9.3
n-Butylbenzene	UG/L	5	ND	ND	ND J	18	24
Total TCLP Volatiles	UG/L		ND	3.7	5.6	182.5	180.1
TCLP Semivolatiles							
Naphthalene	UG/L	10	ND	1.1	ND	106	110
Acenaphthene	UG/L	20	ND	ND	ND	1.5 J	1.7 J
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	2.2 J	2.6 J
Pyrene	UG/L	50	ND	ND	ND	1.9 J	2.2 J
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total TCLP Semivolatiles	UG/L		ND	1.1	ND	105.6	116.5

* - NYSDEC STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

((FLDSAMPID Like "MW-D-*" Or FLDSAMPID Like "SB-D-*"))

Checked By: 10/16/00 JJL, 11/28/00 JJL

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9/30/02

TABLE 4 - AREA D
BROOKLYN MARINE TERMINAL
TCLP EXTRACT SOIL ANALYTICAL RESULTS

Sample ID:			SB-D-02	SB-D-02	SB-D-03	SB-D-03
Depth Interval (ft):			2.0-4.0	4.0-6.0	4.0-6.0	6.0-8.0
Date Sampled:			09/18/00	09/18/00	08/07/00	08/07/00
Parameter	Units	Criteria*				
TCLP Volatiles						
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	3.3	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	20.5	3.6	8.6
Isopropylbenzene	UG/L	5	ND	3	ND	ND
n-Propylbenzene	UG/L	5	ND	4.7	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	4.8	ND	15
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	90	2.9	240
1,3,5-Trimethylbenzene	UG/L	5	ND	30	1	80
sec-Butylbenzene	UG/L	5	ND	5.1	ND	3.9
n-Butylbenzene	UG/L	5	ND	ND	ND	ND
Total TCLP Volatiles	UG/L		ND	161.4	7.5	347.5
TCLP Semivolatiles						
Naphthalene	UG/L	10	ND	66	14	75
Acenaphthene	UG/L	20	ND	1.2 J	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	0.002	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND
Fluorene	UG/L	50	ND	1.6 J	ND	ND
Phenanthrene	UG/L	50	ND	1.4 J	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND
Total TCLP Semivolatiles	UG/L		ND	70.2	14	75

* - NYSDEC STARS TCLP Extraction Guidance Value, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy, NYSDEC, August 1992.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

((FLDSAMPID Like "MW-D-*" Or FLDSAMPID Like "SB-D-*"))

Checked By: 10/16/00 JJL, 11/28/00 JJL

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9/30/02

TABLE 4A - AREA D
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			MW-D-05	MW-D-05	PE-D-1	PE-D-2	PE-D-3
Depth Interval (ft):			2.0-4.0	4.0-6.0	7.5-7.5	7.5-7.5	7.5-7.5
Date Sampled:			01/17/02	01/17/02	03/24/98	03/24/98	03/24/98
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND	25	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND	ND
Toluene	UG/KG	1500	ND	ND	ND	ND	ND
Total Xylenes	UG/KG	1200	ND	2.9	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	2.9	ND	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	2.6	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	6.2	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND	ND	ND	ND
Total Volatiles	UG/KG		2.9	11.7	25	ND	ND
Semivolatiles							
Naphthalene	UG/KG	13000	ND	140 J	110 J	ND	100 J
Acenaphthene	UG/KG	50000	600 J	960	59 J	ND	44 J
Anthracene	UG/KG	50000	570	1700	ND	ND	49 J
Benzo(a)anthracene	UG/KG	224	2400	4500	31 J	ND	110 J
Benzo(a)pyrene	UG/KG	61	1900	3700	ND	ND	130 J
Benzo(b)fluoranthene	UG/KG	220	2600	3600	ND	ND	130 J
Benzo(k)fluoranthene	UG/KG	220	780	1300	ND	ND	87 J
Chrysene	UG/KG	400	2100	4700	42 J	ND	150 J
Dibenz(a,h)anthracene	UG/KG	14.3	77 J	150 J	ND	ND	ND
Fluoranthene	UG/KG	50000	4300	6900	94 J	61 J	340
Fluorene	UG/KG	50000	590 J	800	130 J	ND	81 J
Phenanthrene	UG/KG	50000	1300	7000	180 J	50 J	230 J
Pyrene	UG/KG	50000	3500	10000 D	81 J	58 J	240 J
Benzo(g,h,i)perylene	UG/KG	50000	630	1300	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	650	1100	ND	ND	61 J
Total Semivolatiles	UG/KG		21997	47850	727	169	1752

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

((tblRES.FLDSAMPID Like "sb-d-*" Or tblRES.FLDSAMPID Like "mw-d-*" Or tblRES.FLDSAMPID Like "pe-d-*"))

Checked By: ?, 2/21/02 JJL, 3/18/02, 9/3/02 JJL

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9/30/02

TABLE 4A - AREA D
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			PE-D-4	PE-D-5	PE-D-6	SB-D-04	SB-D-04
Depth Interval (ft):			7.5-7.5	7.5-7.5	7.5-7.5	2.0-4.0	6.0-8.0
Date Sampled:			03/24/98	03/25/98	03/25/98	01/21/02	01/21/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	38	36	ND	ND	ND
Benzene	UG/KG	60	ND	ND	ND	ND J	ND
Ethylbenzene	UG/KG	5500	ND	ND	ND	ND J	ND
Toluene	UG/KG	1500	ND	ND	ND	ND J	ND
Total Xylenes	UG/KG	1200	ND	ND	ND	ND J	ND
Isopropylbenzene	UG/KG	2300	ND	ND	ND	ND J	ND
n-Propylbenzene	UG/KG	3700	41	ND	ND	ND J	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	28	180	ND	ND J	ND
tert-Butylbenzene	UG/KG	10000	ND	ND	ND	ND J	ND
1,2,4-Trimethylbenzene	UG/KG	10000	74	300	ND	ND J	ND
1,3,5-Trimethylbenzene	UG/KG	3300	100	200	ND	ND J	ND
sec-Butylbenzene	UG/KG	10000	94	61	ND	ND J	ND
n-Butylbenzene	UG/KG	10000	150	33	ND	ND J	ND
Total Volatiles	UG/KG		525	810	ND	ND	ND
Semivolatiles							
Naphthalene	UG/KG	13000	380	1400	54 J	68 J	ND
Acenaphthene	UG/KG	50000	39 J	290 J	ND	48 J	ND
Anthracene	UG/KG	50000	ND	70 J	ND	230 J	ND
Benzo(a)anthracene	UG/KG	224	ND	75 J	ND	1200	51 J
Benzo(a)pyrene	UG/KG	61	ND	78 J	ND	1000	ND
Benzo(b)fluoranthene	UG/KG	220	ND	40 J	ND	1400	42 J
Benzo(k)fluoranthene	UG/KG	220	18 J	35 J	ND	440	ND
Chrysene	UG/KG	400	ND	110 J	ND	1100	40 J
Dibenz(a,h)anthracene	UG/KG	14.3	ND	ND	ND	55 J	ND
Fluoranthene	UG/KG	50000	42 J	310 J	ND	1800	93 J
Fluorene	UG/KG	50000	110 J	820	ND	49 J	ND
Phenanthrene	UG/KG	50000	150 J	1200	44 J	960	80 J
Pyrene	UG/KG	50000	34 J	ND	21 J	2000	84 J
Benzo(g,h,i)perylene	UG/KG	50000	ND	ND	ND	390 J	ND
Indeno(1,2,3-cd)pyrene	UG/KG	3200	ND	ND	ND	360 J	ND
Total Semivolatiles	UG/KG		773	4428	119	11100	390

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

((tblRES.FLDSAMPID Like "sb-d-*" Or tblRES.FLDSAMPID Like "mw-d-*" Or tblRES.FLDSAMPID Like "pe-d-*"))

Checked By: ?, 2/21/02 JJL, 3/18/02, 9/3/02 JJL

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9/30/02

TABLE 4A - AREA D
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			SB-D-05	SB-D-05	SB-D-06	SB-D-06	SB-D-07
Depth Interval (ft):			2.0-4.0	6.0-8.0	5.0-7.0	7.0-9.0	5.0-7.0
Date Sampled:			01/21/02	01/21/02	08/19/02	08/19/02	07/16/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/KG	120	ND	ND J	ND	ND	ND
Benzene	UG/KG	60	ND	ND J	ND	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND J	ND	ND	ND
Toluene	UG/KG	1500	8.9 J	13 J	ND	ND	ND
Total Xylenes	UG/KG	1200	ND	ND J	ND	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND J	ND	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND J	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	35 J	ND	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND J	ND	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	8.2 J	ND	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND J	ND	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	32 J	ND	ND	ND
n-Butylbenzene	UG/KG	10000	ND	32 J	ND	ND	ND
Total Volatiles	UG/KG		8.9	120.2	ND	ND	ND
Semivolatiles							
Naphthalene	UG/KG	13000	53 J	3100	ND	ND	ND
Acenaphthene	UG/KG	50000	67 J	900 J	NA	NA	NA
Anthracene	UG/KG	50000	330 J	740	NA	NA	NA
Benzo(a)anthracene	UG/KG	224	1100	79 J	NA	NA	NA
Benzo(a)pyrene	UG/KG	61	930	51 J	NA	NA	NA
Benzo(b)fluoranthene	UG/KG	220	1200	68 J	NA	NA	NA
Benzo(k)fluoranthene	UG/KG	220	480	ND	NA	NA	NA
Chrysene	UG/KG	400	1100	86 J	NA	NA	NA
Dibenz(a,h)anthracene	UG/KG	14.3	41 J	ND	NA	NA	NA
Fluoranthene	UG/KG	50000	1900	350	NA	NA	NA
Fluorene	UG/KG	50000	73 J	2200	NA	NA	NA
Phenanthrene	UG/KG	50000	1400	5000	NA	NA	NA
Pyrene	UG/KG	50000	1900	380 J	NA	NA	NA
Benzo(g,h,i)perylene	UG/KG	50000	510	ND	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	3200	420	ND	NA	NA	NA
Total Semivolatiles	UG/KG		11504	12954	ND	ND	ND

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS compounds as per NYSDEC, 8/22/01.
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

((tblRES.FLDSAMPID Like "sb-d-*" Or tblRES.FLDSAMPID Like "mw-d-*" Or tblRES.FLDSAMPID Like "pe-d-*"))

Checked By: ?, 2/21/02 JJL, 3/18/02, 9/3/02 JJL

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9/30/02

TABLE 4A - AREA D
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			SB-D-08
Depth Interval (ft):			5.0-7.0
Date Sampled:			07/16/02
Parameter	Units	Criteria*	
Volatiles			
Methyl t-Butyl Ether	UG/KG	120	ND
Benzene	UG/KG	60	ND
Ethylbenzene	UG/KG	5500	26
Toluene	UG/KG	1500	ND
Total Xylenes	UG/KG	1200	12
Isopropylbenzene	UG/KG	2300	65
n-Propylbenzene	UG/KG	3700	110
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	170
tert-Butylbenzene	UG/KG	10000	ND
1,2,4-Trimethylbenzene	UG/KG	10000	82
1,3,5-Trimethylbenzene	UG/KG	3300	22
sec-Butylbenzene	UG/KG	10000	230
n-Butylbenzene	UG/KG	10000	330
Total Volatiles	UG/KG		1047
Semivolatiles			
Naphthalene	UG/KG	13000	500
Acenaphthene	UG/KG	50000	NA
Anthracene	UG/KG	50000	NA
Benzo(a)anthracene	UG/KG	224	NA
Benzo(a)pyrene	UG/KG	61	NA
Benzo(b)fluoranthene	UG/KG	220	NA
Benzo(k)fluoranthene	UG/KG	220	NA
Chrysene	UG/KG	400	NA
Dibenz(a,h)anthracene	UG/KG	14.3	NA
Fluoranthene	UG/KG	50000	NA
Fluorene	UG/KG	50000	NA
Phenanthrene	UG/KG	50000	NA
Pyrene	UG/KG	50000	NA
Benzo(g,h,i)perylene	UG/KG	50000	NA
Indeno(1,2,3-cd)pyrene	UG/KG	3200	NA
Total Semivolatiles	UG/KG		500

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS compounds as per NYSDEC, 8/22/01.
[redacted] Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

((tblRES.FLDSAMPID Like "sb-d-*" Or
tblRES.FLDSAMPID Like "mw-d-*" Or
tblRES.FLDSAMPID Like "pe-d-*"))

Checked By: ?, 2/21/02 JJL, 3/18/02, 9/3/02 JJL

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9/30/02

TABLE 5
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-A-01	MW-A-01	MW-A-02	MW-A-02	MW-A-03
Matrix			Water	Water	Water	Water	Water
Date Sampled:			10/20/00	02/20/02	10/20/00	02/19/02	10/20/00
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).
Concentration exceeds criteria.

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ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 11/26/00 JJL, 3/25/02 JJL

TABLE 5
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-A-03	MW-A-04	MW-A-04	MW-A-05	MW-A-06
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/20/02	10/20/00	02/19/02	10/20/00	10/20/00
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 11/28/00 JJL, 3/25/02 JJL

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11/21/02

TABLE 5
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-A-06	MW-B-01	MW-B-01	MW-B-02	MW-B-02
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/19/02	10/20/00	02/19/02	10/20/00	02/19/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	1.5 J	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	2.3 J	1.1 J	1.2 J
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	3.8	1.1	1.2

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).
Concentration exceeds criteria.

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D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 11/28/00 JJL, 3/25/02 JJL U:\programs\Main\Nycddc.mde 11/21/02

TABLE 5
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-B-03	MW-B-03	MW-B-04	MW-B-04	MW-B-05
Matrix			Water	Water	Water	Water	Water
Date Sampled:			10/20/00	02/19/02	10/20/00	02/20/02	02/20/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	3.4	ND	ND
Benzene	UG/L	1	ND	ND	2.5	ND	ND
Ethylbenzene	UG/L	5	ND	ND	240	130	ND
Toluene	UG/L	5	ND	ND	38	5.6	ND
Total Xylenes	UG/L	5	ND	ND	420	134	ND
Isopropylbenzene	UG/L	5	ND	ND	16	11	ND
n-Propylbenzene	UG/L	5	ND	ND	43	27	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	1.2	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	230	92	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	40	8.9	ND
sec-Butylbenzene	UG/L	5	ND	ND	2.3	1.5	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	19	ND
Total Volatiles	UG/L		ND	ND	1036.4	429	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	58	19	1.3
Acenaphthene	UG/L	20	3.2 J	4.7 J	1.8 J	1.7 J	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	2.3 J	3.2 J	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	2.6 J	4.6 J	2.3 J	2.0 J	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		8.1	12.5	62.1	22.7	1.3

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

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Checked By: 11/28/00 JJL, 3/25/02 JJL

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11/21/02

TABLE 5
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-B-06	MW-B-07	MW-C-01	MW-D-01	MW-D-01
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/20/02	02/20/02	02/20/02	10/20/00	02/20/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	1.4	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		1.4	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	1.2 J	1.2	ND	ND	ND
Acenaphthene	UG/L	20	ND	1.2 J	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		1.2	2.4	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

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J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
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Checked By: 11/28/00 JJL, 3/25/02 JJL

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11/21/02

TABLE 5
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-D-02	MW-D-02	MW-D-03	MW-D-03	MW-D-04
Matrix			Water	Water	Water	Water	Water
Date Sampled:			10/20/00	02/20/02	10/20/00	02/20/02	10/20/00
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	1.1	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		1.1	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 11/28/00 JJL, 3/25/02 JJL U:\programs\Main\Nycddc.mde 11/21/02

TABLE 5
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-D-04	MW-D-05
Matrix			Water	Water
Date Sampled:			02/20/02	02/20/02
Parameter	Units	Criteria*		
Volatiles				
Methyl t-Butyl Ether	UG/L	10	ND	ND
Benzene	UG/L	1	ND	ND
Ethylbenzene	UG/L	5	ND	110
Toluene	UG/L	5	ND	ND
Total Xylenes	UG/L	5	ND	211.7
Isopropylbenzene	UG/L	5	ND	15
n-Propylbenzene	UG/L	5	ND	51
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	7.2
tert-Butylbenzene	UG/L	5	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	270
1,3,5-Trimethylbenzene	UG/L	5	ND	88
sec-Butylbenzene	UG/L	5	ND	4.0
n-Butylbenzene	UG/L	5	ND	44
Total Volatiles	UG/L		ND	800.9
Semivolatiles				
Naphthalene	UG/L	10	ND	48
Acenaphthene	UG/L	20	ND	ND
Anthracene	UG/L	50	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND
Chrysene	UG/L	0.002	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND
Fluoranthene	UG/L	50	ND	ND
Fluorene	UG/L	50	ND	ND
Phenanthrene	UG/L	50	ND	ND
Pyrene	UG/L	50	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND
Total Semivolatiles	UG/L		ND	48

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).
Concentration exceeds criteria.
R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

URS

Reviewed; sent approval letter on 10/21/03 -JK

May 19, 2003

Mr. Jonathan Kolleeny
Engineering Geologist I
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Spill Prevention and Response
47-40 21st Street
Long Island City, New York 11101

RE: NYCDDC UST Program
Contract PW 348-23
Brooklyn Marine Terminal
Recommendation for No Further Action for Soil and for Groundwater Monitoring

Dear Mr. Kolleeny:

This letter presents the results of the latest drilling and groundwater events performed by URS Corporation (URS) at the Brooklyn Marine Terminal (Figure 1). Based on the latest analytical data, URS recommends no further action for soil and groundwater monitoring.

In correspondence dated November 25, 2002, URS recommended no further action for vadose zone soil at the site. In response, the New York State Department of Environmental Conservation (NYSDEC) requested that an additional boring be placed as close as possible to former boring SB-C-01. Boring SB-C-01 was advanced in August 2000 and exhibited exceedances of the NYSDEC Toxicity Characteristic Leaching Procedure (TCLP) guidance values for several volatile organic compounds (VOCs) at 2 to 4 feet below ground surface (bgs).

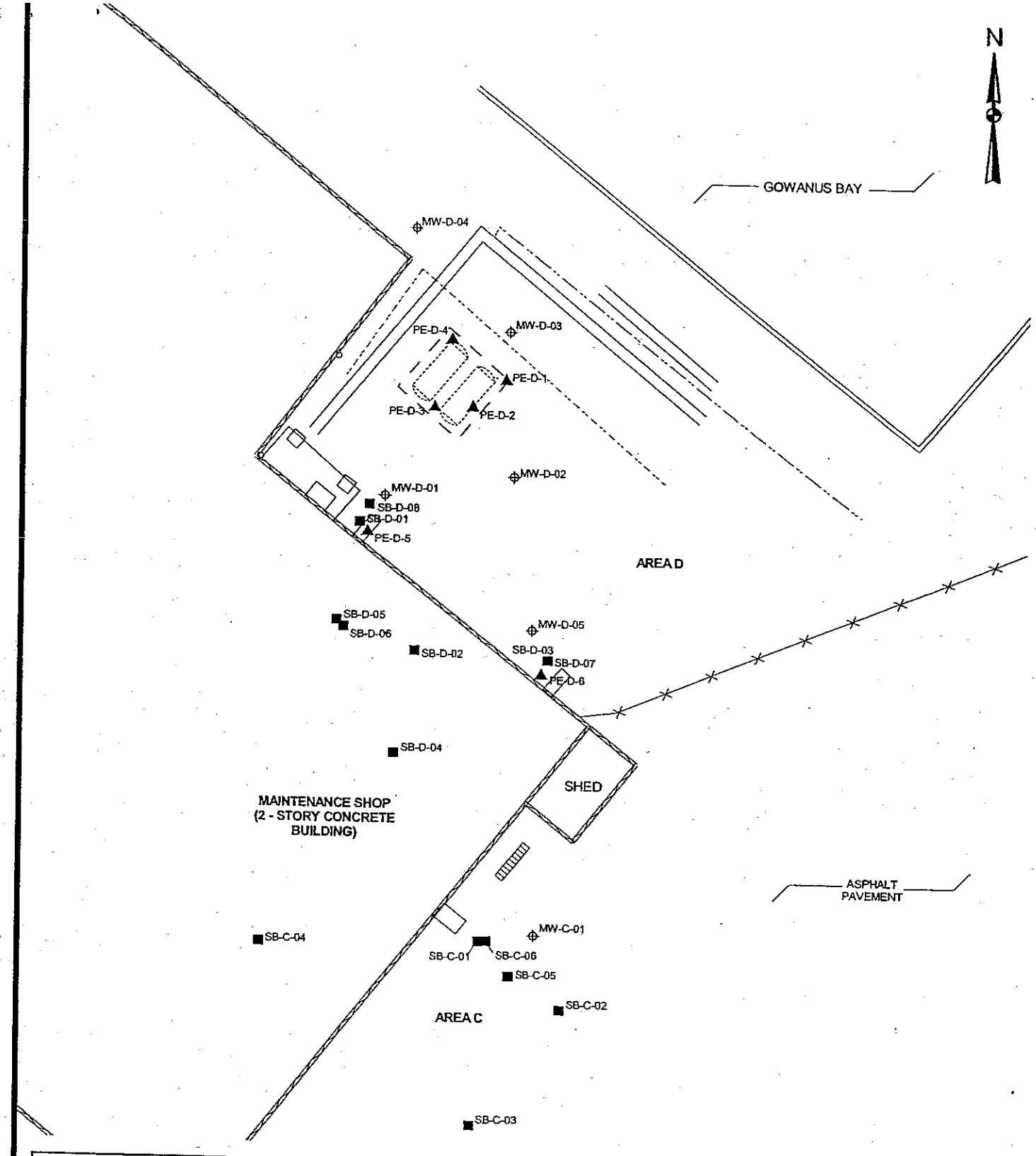
Therefore, on January 17, 2003, URS advanced boring SB-C-06 to a depth of 12 feet bgs using a Geoprobe at the location shown on Figure 2. Continuous 4-foot macro-core samples were collected as the boring was advanced, and the samples from 4 to 8 feet bgs and 9 to 10 feet bgs were submitted for laboratory analysis for NYSDEC *STARS* VOCs and naphthalene using United States Environmental Protection Agency (USEPA) Method 8021B. The boring log is included as an attachment to this letter.

The analytical data, presented on Table 1, show that both samples from SB-C-06 were non-detect for VOCs and naphthalene. Based on this soil latest data, URS again recommends no further action for soil at the site.

On February 24 and 27, 2003, URS collected groundwater samples from monitoring wells MW-B-02, MW-B-03, MW-B-04, MW-C-01, MW-D-01, MW-D-03, MW-D-04, and MW-D-05. Monitoring wells MW-B-01 and MW-D-02 were scheduled to be sampled but they could not be located. The groundwater samples were analyzed for NYSDEC *STARS* VOCs and semi-volatile organic compounds (SVOCs) using USEPA Methods 8021B and 8270C, respectively.

The analytical results, presented on Table 2, show that only minor contamination remains at the site. Groundwater in wells MW-B-04 and MW-D-05 exhibited several VOCs and naphthalene above

URS Corporation
640 Ellicott Street
Buffalo, NY 14203
Tel: 716.856.5636
Fax: 716.856.2545



Legend

- Monitoring Well
- Soil Boring
- Closure Sample

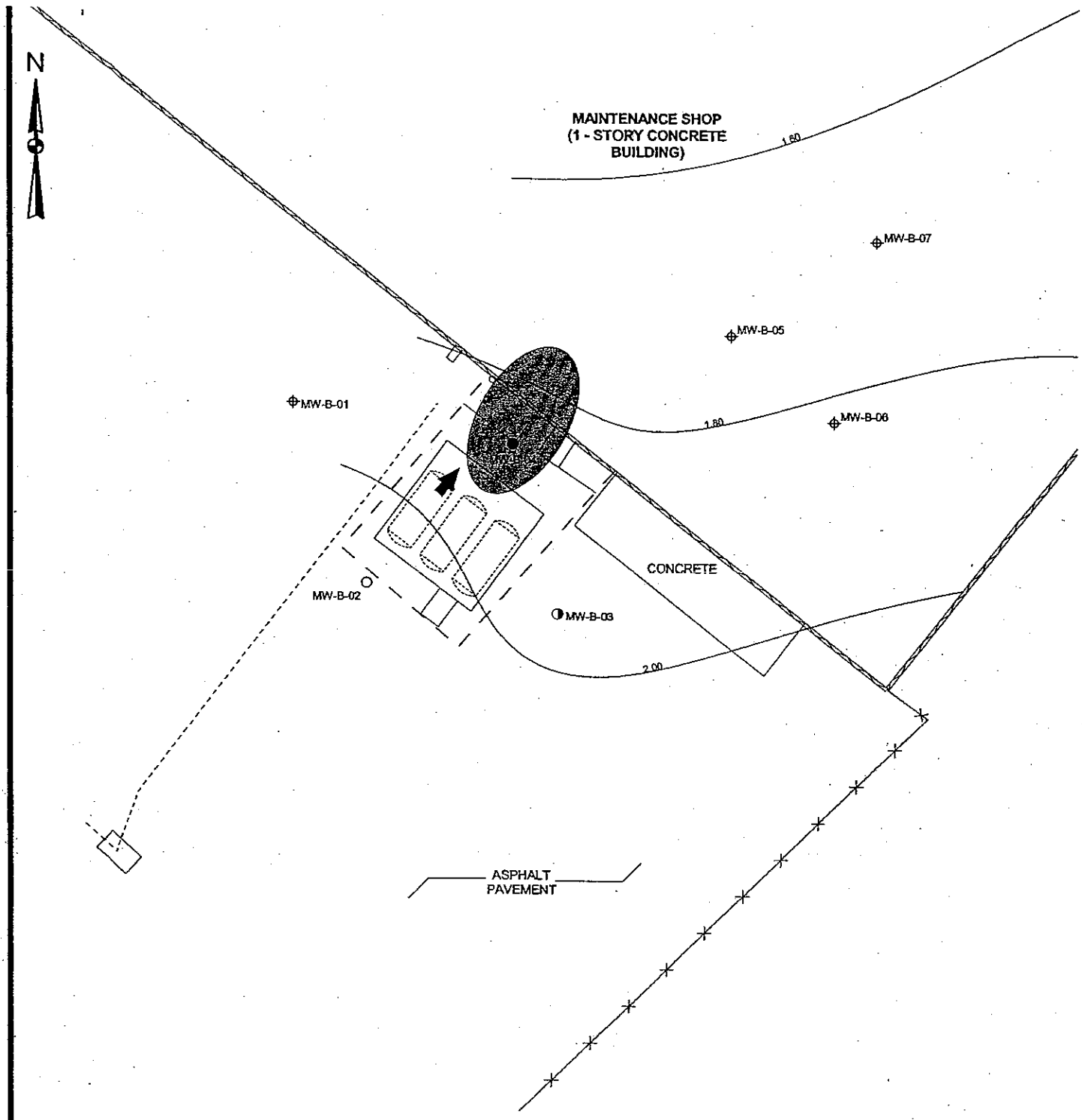
30 0 30 Feet

N:\11170471.00000\DB\GIS\b8540.apr (AREAS C & D) MONITORING WELL/SAMPLING LOCATIONS
5/21/2003

URS

BROOKLYN MARINE TERMINAL
MONITORING WELL/SAMPLING LOCATIONS
(AREAS C & D)

FIGURE 2



Legend

- Monitoring Well
- Monitoring Well (Not Sampled)
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 1.00 — Groundwater Elevation Contour (2/24/03)
- Estimated Extent of Groundwater Contamination
- Groundwater Flow Direction (2/24/03)

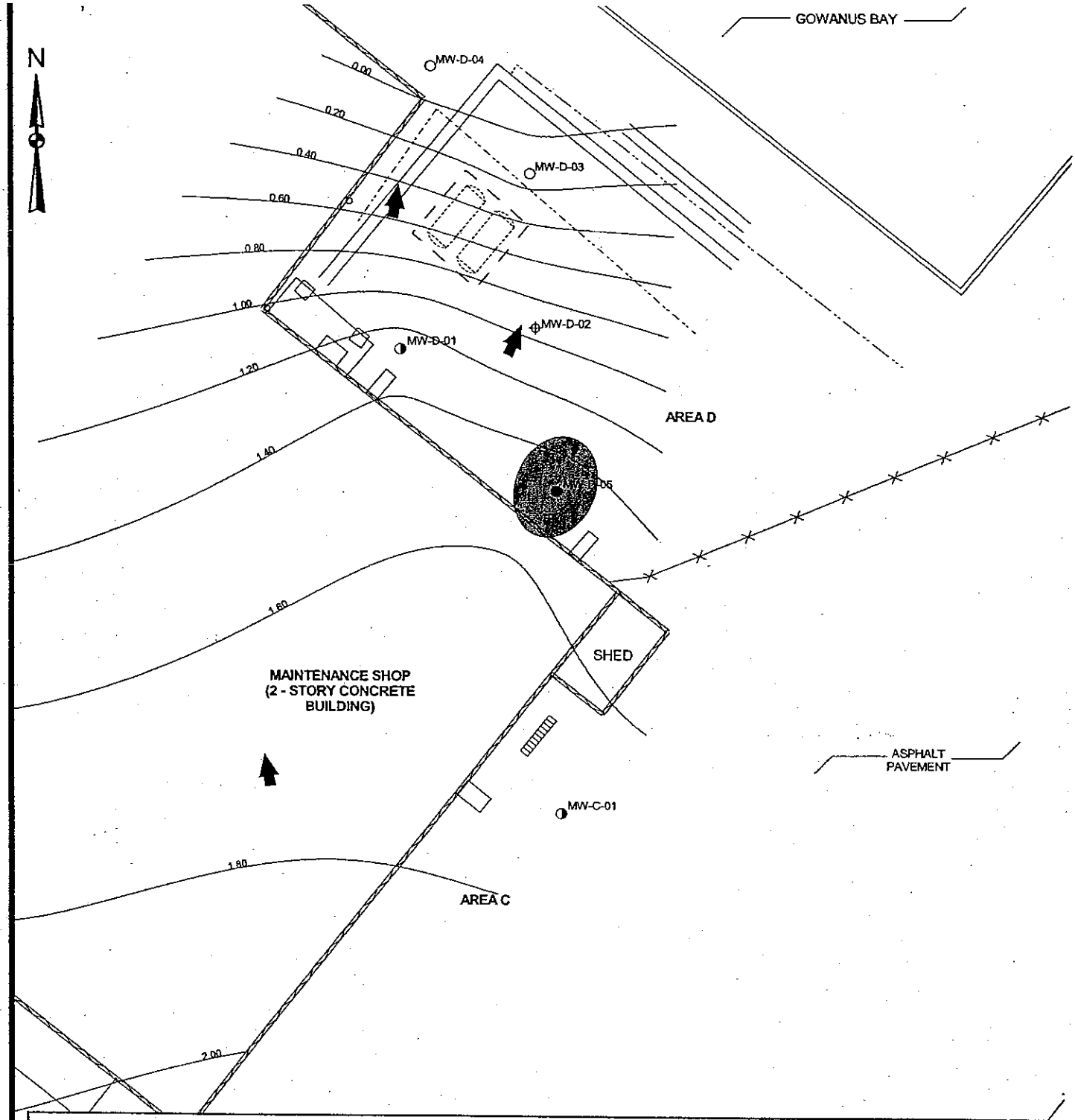
30 0 30 Feet

URS

BROOKLYN MARINE TERMINAL
EXTENT OF GROUNDWATER CONTAMINATION
(FEBRUARY 2003 - AREA B)

FIGURE 3

N:\11170471.00000\DB\GIS\b854b.apr (AREA B) FEB 03 GROUNDWATER CONTAMINATION
5/21/2003



Legend

- ○ Monitoring Well
- ⊕ Monitoring Well (Not Sampled)
- ○ No Compounds Detected
- ◑ No Compounds Exceed Criteria
- ● At Least One Compound Exceeds Criteria
- 1.00 Groundwater Elevation Contour (2/24/03)
- Estimated Extent of Groundwater Contamination
- Groundwater Flow Direction (2/24/03)

30 0 30 Feet

N:\11170471.00000\DBIG\Sb54b.apr (AREAS C&D) FEB 03 GROUNDWATER CONTAMINATION
5/21/2003

URS

BROOKLYN MARINE TERMINAL
EXTENT OF GROUNDWATER CONTAMINATION
(FEBRUARY 2003 - AREAS C & D)

FIGURE 4

TABLE 1
BROOKLYN MARINE TERMINAL
SOIL ANALYTICAL RESULTS

Sample ID:			SB-C-06	SB-C-06
Depth Interval (ft):			4.0-8.0	9.0-10.0
Date Sampled:			01/17/03	01/17/03
Parameter	Units	Criteria*		
Volatiles				
Methyl t-Butyl Ether	UG/KG	120	ND	ND
Benzene	UG/KG	60	ND	ND
Ethylbenzene	UG/KG	5500	ND	ND
Toluene	UG/KG	1500	ND	ND
Total Xylenes	UG/KG	1200	ND	ND
Isopropylbenzene	UG/KG	2300	ND	ND
n-Propylbenzene	UG/KG	3700	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/KG	10000	ND	ND
tert-Butylbenzene	UG/KG	10000	ND	ND
1,2,4-Trimethylbenzene	UG/KG	10000	ND	ND
1,3,5-Trimethylbenzene	UG/KG	3300	ND	ND
sec-Butylbenzene	UG/KG	10000	ND	ND
n-Butylbenzene	UG/KG	10000	ND	ND
Total Volatiles	UG/KG		ND	ND
Semivolatiles				
Naphthalene	UG/KG	13000	ND	ND
Total Semivolatiles	UG/KG		ND	ND

* - NYSDEC TAGM: Determination of Soil Cleanup Objectives and Cleanup Levels; HWR-94-4046 January 24, 1994 with addition of STARS compounds as per NYSDEC, 8/22/01.

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(tblRES.LOGDATE Between #1/1/03# And #2/27/03#)

Checked By: GEK 03/12/03

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5/19/03

TABLE 2
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-A-01	MW-A-01	MW-A-02	MW-A-02	MW-A-03
Matrix			Water	Water	Water	Water	Water
Date Sampled:			10/20/00	02/20/02	10/20/00	02/19/02	10/20/00
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 11/28/00 JJL, 3/25/02 JJL, GEK 03/25/03

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5/20/03

TABLE 2
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-A-03	MW-A-04	MW-A-04	MW-A-05	MW-A-06
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/20/02	10/20/00	02/19/02	10/20/00	10/20/00
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

TABLE 2
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-A-06	MW-B-01	MW-B-01	MW-B-02	MW-B-02
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/19/02	10/20/00	02/19/02	10/20/00	02/19/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	1.5 J	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	2.3 J	1.1 J	1.2 J
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	3.8	1.1	1.2

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

TABLE 2
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-B-02	MW-B-03	MW-B-03	MW-B-03	MW-B-04
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/24/03	10/20/00	02/19/02	02/24/03	10/20/00
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	3.4
Benzene	UG/L	1	ND	ND	ND	ND	2.5
Ethylbenzene	UG/L	5	ND	ND	ND	1.0	240
Toluene	UG/L	5	ND	ND	ND	ND	38
Total Xylenes	UG/L	5	ND	ND	ND	1.8 J	420
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	16
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	43
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	1.2
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	2.1	230
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	40
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	2.3
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	ND	4.9	1036.4
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	58
Acenaphthene	UG/L	20	ND	3.2 J	4.7 J	5.0 J	1.8 J
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	2.3 J	3.2 J	2.6 J	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	2.6 J	4.6 J	4.1 J	2.3 J
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	8.1	12.5	11.7	62.1

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 11/28/00 JJL, 3/25/02 JJL, GEK 03/25/03

TABLE 2
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-B-04	MW-B-04	MW-B-05	MW-B-06	MW-B-07
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/20/02	02/24/03	02/20/02	02/20/02	02/20/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	130	55	ND	ND	ND
Toluene	UG/L	5	5.6	ND	ND	ND	ND
Total Xylenes	UG/L	5	134	85	ND	ND	ND
Isopropylbenzene	UG/L	5	11	4.4	ND	ND	ND
n-Propylbenzene	UG/L	5	27	12	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	92	69	ND	1.4	ND
1,3,5-Trimethylbenzene	UG/L	5	8.9	23	ND	ND	ND
sec-Butylbenzene	UG/L	5	1.5	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	19	ND	ND	ND	ND
Total Volatiles	UG/L		429	248.4	ND	1.4	ND
Semivolatiles							
Naphthalene	UG/L	10	19	14	1.3	1.2 J	1.2
Acenaphthene	UG/L	20	1.7 J	1.8 J	ND	ND	1.2 J
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	2.0 J	2.0 J	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		22.7	17.8	1.3	1.2	2.4

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

TABLE 2
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-C-01	MW-C-01	MW-D-01	MW-D-01	MW-D-01
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/20/02	02/24/03	10/20/00	02/20/02	02/27/03
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	1.3
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	1.2
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	ND	ND	2.5
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	1.1 J	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	1.1	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 11/28/00 JJL, 3/25/02 JJL, GEK 03/25/03 J:\35448\DB\program\NYCDDC.mde 5/20/03

TABLE 2
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-D-02	MW-D-02	MW-D-03	MW-D-03	MW-D-03
Matrix			Water	Water	Water	Water	Water
Date Sampled:			10/20/00	02/20/02	10/20/00	02/20/02	02/27/03
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	ND	ND
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	ND	ND	ND	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	1.1	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		1.1	ND	ND	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).
Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.
B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 11/28/00 JJL, 3/25/02 JJL, GEK 03/25/03 J:\35446\DB\program\NYCDDC.mde 5/20/03

TABLE 2
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-D-04	MW-D-04	MW-D-04	MW-D-05	MW-D-05
Matrix			Water	Water	Water	Water	Water
Date Sampled:			10/20/00	02/20/02	02/27/03	02/20/02	02/27/03
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	ND	ND	110	11
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	ND	ND	211.7	3.5
Isopropylbenzene	UG/L	5	ND	ND	ND	15	1.6
n-Propylbenzene	UG/L	5	ND	ND	ND	51	5.5
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	7.2	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	ND	ND	270	6.7
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND	88	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND	4.0	ND
n-Butylbenzene	UG/L	5	ND	ND	ND	44	ND
Total Volatiles	UG/L		ND	ND	ND	800.9	28.3
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	ND	48	2.7 J
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		ND	ND	ND	48	2.7

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

( ) Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

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NA - Sample not analyzed for this analyte.

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Checked By: 11/28/00 JJL, 3/25/02 JJL, GEK 03/25/03

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5/20/03

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2
Environmental Monitors Unit
47-40 21st Street, Long Island City, NY 11101
Phone: (718) 482-6388 **Fax:** (718) 482-6390
Website: www.dec.state.ny.us **E-mail:** jakollee@gw.dec.state.ny.us

Erin M. Crotty
Commissioner

October 21, 2003

Afsar Samani
NYC Department of Design & Construction
30-30 Thomson Avenue
Long Island City, NY 11101

Re: **Recommendation of No Further Action for Soil and for Groundwater Monitoring**
Brooklyn Marine Terminal
29th–39th Streets & Gowanus Bay
Brooklyn, New York

Dear Ms. Samani:

The Department has reviewed the document *Recommendation of No Further Action for Soil and for Groundwater Monitoring* pertaining to the above-referenced site, submitted in May 2003 by URS Corporation (URS). Management of this site has been transferred from Kirkyla & Remeza, Inc. to O'Brien-Kreitzberg Associates, Inc.

The report summarizes the results of recent soil and groundwater sampling at the site. The new soil data, together with earlier soil data presented in the URS report *Results of Field Investigation,* dated November 25, 2002, suggest that no significant soil contamination remains at the site. The recent groundwater results show that minor levels of groundwater contamination remain in only two on-site wells, and that the levels in those wells show a decreasing trend. Accordingly, URS now recommends no further action for soil at the site, and quarterly monitoring of groundwater conditions. This is a change from their earlier remedial proposal, which involved soil excavation and application of oxygen release compound.

The revised remedial recommendations are approved. Feel free to contact me if you have any questions.

Sincerely,

Jonathan Kolleeny
Engineering Geologist I
Division of Environmental Remediation

cc: Tanvir Ahmad - NYCDDC
Harvey Roberts - OKA
Jane Staten - URS
File

Fold # R2-03-1063 1 of 3

QUARTERLY GROUNDWATER MONITORING REPORT
JULY – SEPTEMBER 2003
FOR THE NEW YORK CITY
DEPARTMENT OF DESIGN AND CONSTRUCTION
UNDERGROUND PETROLEUM STORAGE TANK SITES

109th PRECINCT
BROOKLYN MARINE TERMINAL
CLOVE LAKES GARAGE

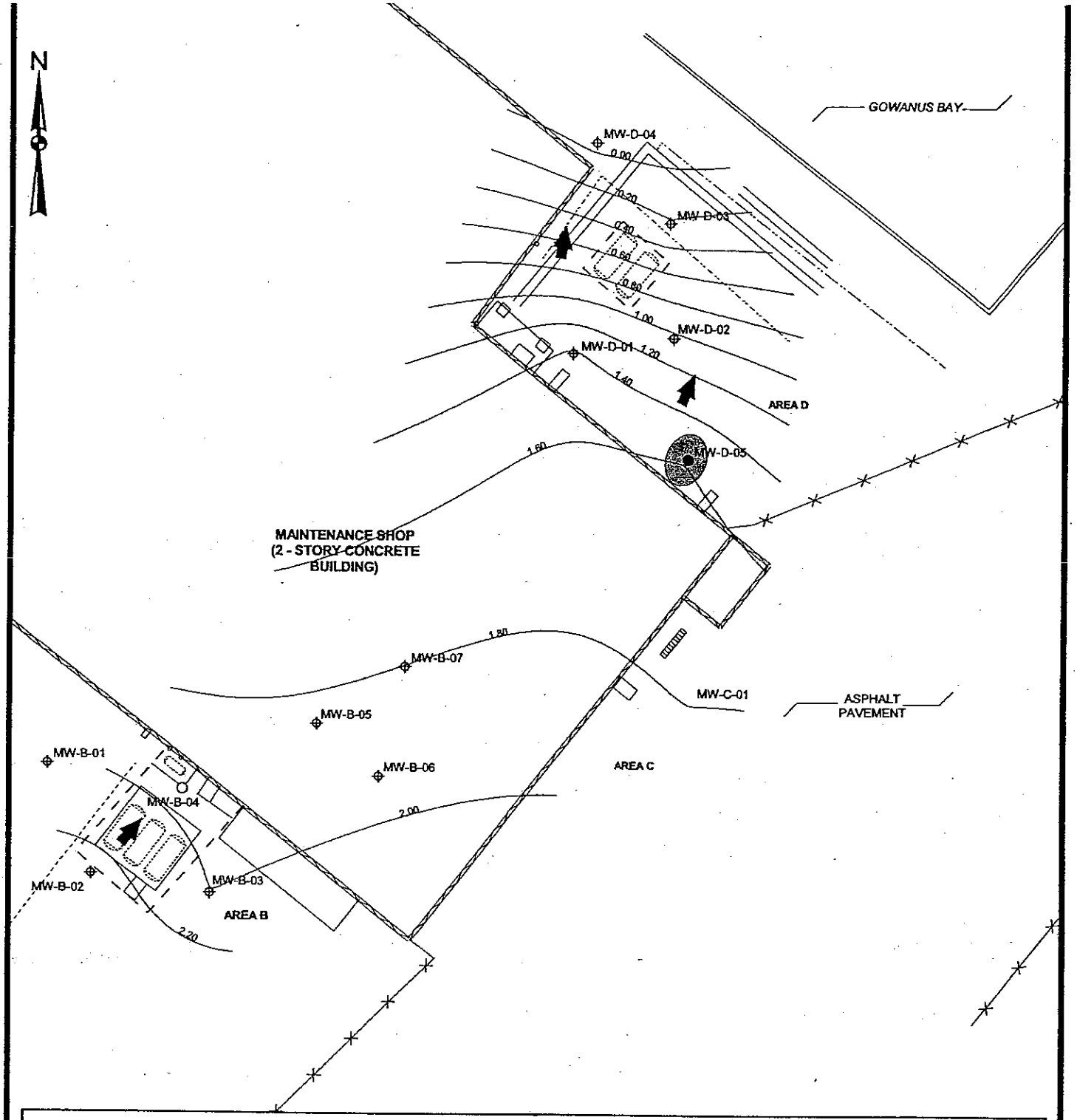
Reviewed, no response letter necessary. -JK 11/13/03

Prepared for:

O'BRIEN KREITZBERG
42-15 CRESCENT STREET
LONG ISLAND CITY, NEW YORK 11101
CAPITAL PROJECT – PW348-23

URS CORPORATION
ONE PENN PLAZA
NEW YORK, NEW YORK

OCTOBER 2003



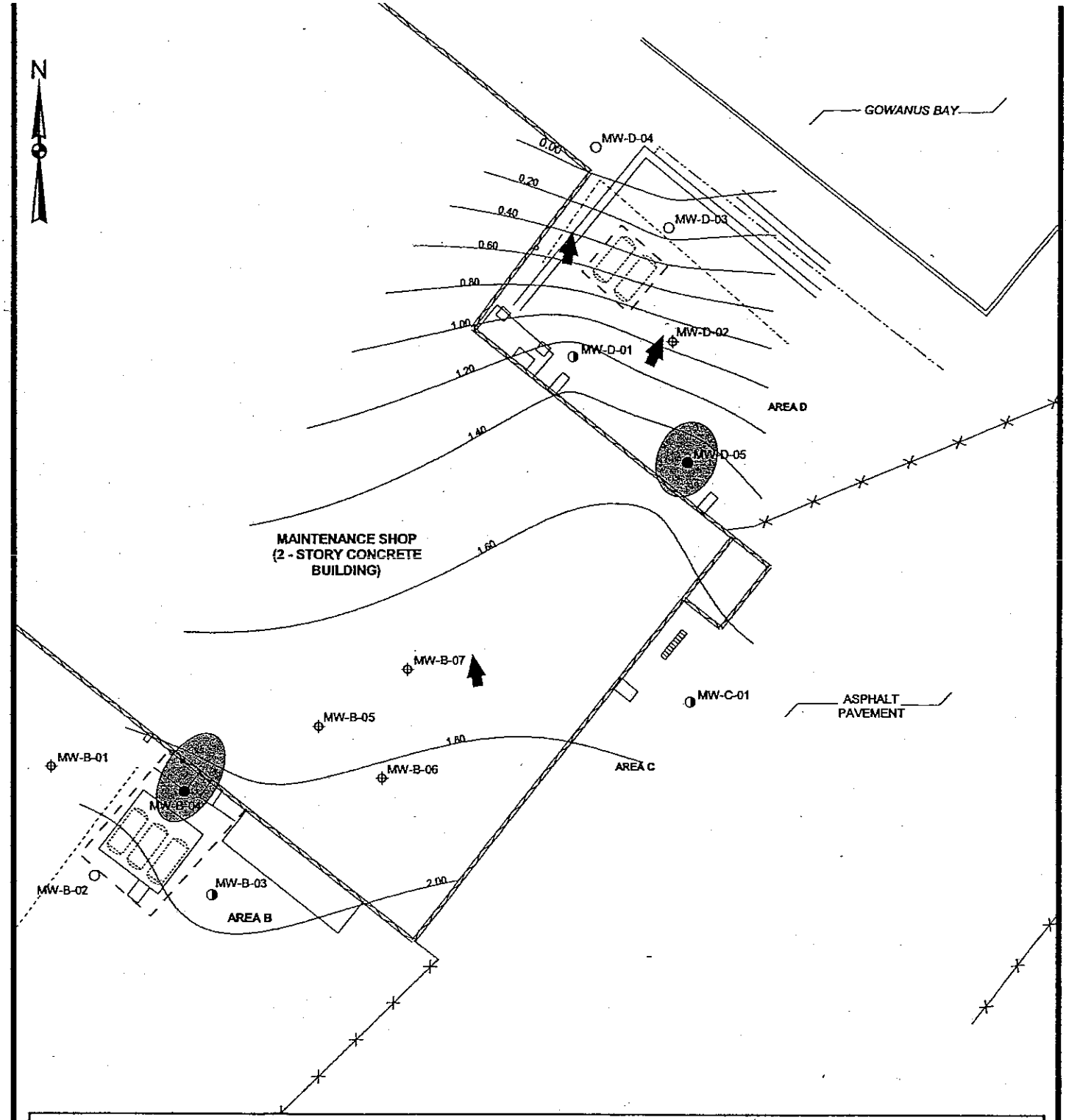
Legend

- Monitoring Well
- Monitoring Well (Not Sampled)
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 1.00 Groundwater Elevation Contour (8/28/03)
- Estimated Extent of Groundwater Contamination
- Groundwater Flow Direction (8/28/03)

40 0 40 Feet

URS	BROOKLYN MARINE TERMINAL GROUNDWATER CONTAMINATION (AUGUST 2003 - AREAS B, C & D)	FIGURE 3.2-1

N:\11170471.00000\DB\GIS\b864b.apr (AREAS B, C & D) AUG 03 GROUNDWATER CONTAMINATION
10/28/2003



Legend

- Monitoring Well
- Monitoring Well (Not Sampled)
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 1.00 Groundwater Elevation Contour (2/24/03)
- Estimated Extent of Groundwater Contamination
- Groundwater Flow Direction (2/24/03)

40 0 40 Feet

URS	BROOKLYN MARINE TERMINAL GROUNDWATER CONTAMINATION (FEBRUARY 2003 - AREAS B, C & D)	FIGURE 3.2-2

N:\11170471.00000\DB\GIS\b854b.apr (AREAS B, C & D) FEB 03 GROUNDWATER CONTAMINATION
10/28/2003

TABLE 3.2-1
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-B-04	MW-B-04	MW-B-04	MW-B-04	MW-D-05
Matrix			Water	Water	Water	Water	Water
Date Sampled:			10/20/00	02/20/02	02/24/03	08/28/03	02/20/02
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	3.4	ND	ND	ND	ND
Benzene	UG/L	1	2.5	ND	ND	ND	ND
Ethylbenzene	UG/L	5	240	130	55	ND	110
Toluene	UG/L	5	38	5.6	ND	ND	ND
Total Xylenes	UG/L	5	420	134	85	ND	211.7
Isopropylbenzene	UG/L	5	16	11	4.4	ND	15
n-Propylbenzene	UG/L	5	43	27	12	ND	51
p-Cymene (p-Isopropyltoluene)	UG/L	5	1.2	ND	ND	ND	7.2
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	230	92	69	ND	270
1,3,5-Trimethylbenzene	UG/L	5	40	8.9	23	ND	88
sec-Butylbenzene	UG/L	5	2.3	1.5	ND	ND	4.0
n-Butylbenzene	UG/L	5	ND	19	ND	ND	44
Total Volatiles	UG/L		1036.4	429	248.4	ND	800.9
Semivolatiles							
Naphthalene	UG/L	10	58	19	14	ND	48
Acenaphthene	UG/L	20	1.8 J	1.7 J	1.8 J	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	2.3 J	2.0 J	2.0 J	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		62.1	22.7	17.8	ND	48

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.
J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.
ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.
D - Concentration reported from a secondary dilution analysis.
NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.
** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((((((((((((((((MATRIX="wg"))) AND ((Not LOCID="MW-A-01"))) AND ((Not LOCID="MW-A-02"))) AND ((Not LOCID="MW-A-03"))) AND ((Not LOCID="MW-A-04"))) AND ((Not LOCID="MW-A-06"))) AND ((Not LOCID="MW-B-01"))) AND ((Not LOCID="MW-B-02")))

Checked By: ?, 11/28/00 JJL, 3/25/02 JJL, GEK 03/25/03 J:\35448\DB\program\NYCDDC.mde 10/17/03

TABLE 3.2-1
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-D-05	MW-D-05
Matrix			Water	Water
Date Sampled:			02/27/03	08/28/03
Parameter	Units	Criteria*		
Volatiles				
Methyl t-Butyl Ether	UG/L	10	ND	ND
Benzene	UG/L	1	ND	ND
Ethylbenzene	UG/L	5	11	ND
Toluene	UG/L	5	ND	ND
Total Xylenes	UG/L	5	3.5	6.7
Isopropylbenzene	UG/L	5	1.6	ND
n-Propylbenzene	UG/L	5	5.5	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	6.7	7.8
1,3,5-Trimethylbenzene	UG/L	5	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND
n-Butylbenzene	UG/L	5	ND	ND
Total Volatiles	UG/L		28.3	14.5
Semivolatiles				
Naphthalene	UG/L	10	2.7 J	ND
Acenaphthene	UG/L	20	ND	ND
Anthracene	UG/L	50	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND
Chrysene	UG/L	0.002	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND
Fluoranthene	UG/L	50	ND	ND
Fluorene	UG/L	50	ND	ND
Phenanthrene	UG/L	50	ND	ND
Pyrene	UG/L	50	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND
Total Semivolatiles	UG/L		2.7	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

(((((((((((((((((MATRIX="wg"))) AND ((Not LOCID="MW-A-01"))) AND ((Not LOCID="MW-A-02"))) AND ((Not LOCID="MW-A-03"))) AND ((Not LOCID="MW-A-04"))) AND ((Not LOCID="MW-A-06"))) AND ((Not LOCID="MW-B-01"))) AND ((Not LOCID="MW-B-02")))

Checked By: ?, 11/28/00 JJL, 3/25/02 JJL, GEK 03/25/03

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10/17/03

TABLE 3.2-2

BROOKLYN MARINE TERMINAL

GROUNDWATER ELEVATION/PRODUCT THICKNESS MEASUREMENTS

Location I.D.	Measurement Date/Time	Measuring Point Elevation	Depth to Water (feet)	Water Elevation (feet)	Product Thickness (feet)	Specific Gravity	Corrected Water Elevation (feet)	Remarks
MW-A-01	10/17/00	8.84	7.29	1.55	0.00	1	1.55	
	10/20/00		7.91	0.93	0.00		0.93	
	11/17/00		8.11	0.73	0.00		0.73	
	12/19/00		8.23	0.60999999	0.00		0.61	
	2/19/02		7.78	1.06	0.00		1.06	
MW-A-02	10/17/00	8.63	7.06	1.57	0.00	1	1.57	
	10/20/00		7.71	0.92000000	0.00		0.92	
	11/17/00		7.91	0.72000000	0.00		0.72	
	12/19/00		7.98	0.65	0.00		0.65	
	2/19/02		7.71	0.92	0.00		0.92	
MW-A-03	10/17/00	8.65	7.14	1.51	0.00	1	1.51	
	10/20/00		7.60	1.05	0.00		1.05	
	11/17/00		7.99	0.66	0.00		0.66	
	12/19/00		8.10	0.55000000	0.00		0.55	
	2/19/02		7.67	0.98	0.00		0.98	
MW-A-04	10/17/00	9.38	7.72	1.66	0.00	1	1.66	
	10/20/00		8.56	0.82	0.00		0.82	
	11/17/00		8.23	1.15	0.00		1.15	
	12/19/00		8.35	1.03	0.00		1.03	
	2/19/02		8.19	1.19	0.00		1.19	
MW-A-05	10/17/00	9.06	7.59	1.47	0.00	1	1.47	
	10/20/00		8.03	1.03	0.00		1.03	
	11/17/00		NM	-	NM		-	No Access
	12/19/00		8.27	0.79000000	0.00		0.79	
	2/19/02		NM	-	NM		-	No Access
MW-A-06	10/17/00	9.00	7.42	1.58	0.00	1	1.58	
	10/20/00		7.96	1.04	0.00		1.04	
	11/17/00		8.23	0.77	0.00		0.77	

NOTES:
1. NM - No measurement was taken.

Filter: [gwd].[SITEID]='854'
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SITEID = '854'

TABLE 3.2-2
BROOKLYN MARINE TERMINAL
GROUNDWATER ELEVATION/PRODUCT THICKNESS MEASUREMENTS

Location I.D.	Measurement Date/Time	Measuring Point Elevation	Depth to Water (feet)	Water Elevation (feet)	Product Thickness (feet)	Specific Gravity	Corrected Water Elevation (feet)	Remarks
MW-A-06	12/19/00	9.00	8.43	0.57	0.00	1	0.57	
	2/19/02		7.80	1.2	0.00		1.20	
MW-B-01	10/17/00	9.19	7.15	2.04	0.00	1	2.04	
	10/20/00		7.26	1.93	0.00		1.93	
	2/19/02		7.71	1.48	0.00		1.48	
MW-B-02	10/17/00	9.28	7.25	2.03	0.00	1	2.03	
	10/20/00		7.32	1.96	0.00		1.96	
	2/19/02		7.63	1.65	0.00		1.65	
	2/24/03		7.11	2.17	0.00		2.17	
	8/28/03		6.99	2.29	0.00		2.29	
MW-B-03	10/17/00	9.72	7.70	2.02	0.00	1	2.02	
	10/20/00		7.75	1.97	0.00		1.97	
	2/19/02		8.12	1.6	0.00		1.60	
	2/24/03		7.85	1.87	0.00		1.87	
	8/28/03		7.72	2.00	0.00		2.00	
MW-B-04	10/17/00	9.89	7.95	1.94	0.00	1	1.94	
	10/20/00		8.02	1.87	0.00		1.87	
	2/19/02		8.20	1.69	0.00		1.69	
	2/24/03		8.03	1.86	0.00		1.86	
	8/28/03		7.94	1.95	0.00		1.95	
MW-B-05	2/19/02	10.09	8.42	1.67	0.00	1	1.67	
MW-B-06	2/19/02	10.00	8.38	1.62	0.00	1	1.62	
MW-B-07	2/19/02	10.23	8.58	1.65	0.00	1	1.65	
MW-C-01	2/19/02	9.62	9.12	0.50	0.00	1	0.50	
	2/24/03		7.95	1.67	0.00		1.67	
	8/28/03		7.83	1.79	0.00		1.79	
MW-D-01	10/17/00	9.64	7.62	2.02	0.00	1	2.02	
	10/20/00		7.70	1.94	0.00		1.94	

NOTES:
1. NM - No measurement was taken.

Filter: ([gwd].[SITEID]='854')
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SITEID = '854'

TABLE 3.2-2
BROOKLYN MARINE TERMINAL
GROUNDWATER ELEVATION/PRODUCT THICKNESS MEASUREMENTS

Location I.D.	Measurement Date/Time	Measuring Point Elevation	Depth to Water (feet)	Water Elevation (feet)	Product Thickness (feet)	Specific Gravity	Corrected Water Elevation (feet)	Remarks
MW-D-01	2/19/02	9.64	7.65	1.99	0.00	1	1.99	
	2/24/03		8.32	1.32	0.00		1.32	
	8/28/03		8.21	1.43	0.00		1.43	
MW-D-02	10/17/00	9.25	7.34	1.91	0.00	1	1.91	
	10/20/00		7.78	1.47	0.00		1.47	
	2/19/02		7.22	2.03	0.00		2.03	
MW-D-03	10/17/00	8.97	6.58	2.39	0.00	1	2.39	
	10/20/00		7.67	1.3	0.00		1.30	
	2/19/02		6.72	2.25	0.00		2.25	
	2/24/03		8.86	0.11	0.00		0.11	
	8/28/03		8.75	0.22	0.00		0.22	
MW-D-04	10/17/00	8.83	6.43	2.4	0.00	1	2.40	
	10/20/00		7.66	1.17	0.00		1.17	
	2/19/02		6.61	2.22	0.00		2.22	
	2/24/03		8.97	-0.14	0.00		-0.14	
	8/28/03		8.88	-0.05	0.00		-0.05	
MW-D-05	2/19/02	9.73	8.18	1.55	0.00	1	1.55	
	2/24/03		8.20	1.53	0.00		1.53	
	8/28/03		8.14	1.59	0.00		1.59	

NOTES:
1. NM - No measurement was taken.

3.6 Brooklyn Marine Terminal

3.6.1 Site Description

The Brooklyn Marine Terminal is located at 39th Street & Gowanus Bay, Brooklyn, New York. As approved by the NYSDEC, monitoring wells MW-B-04 and MW-D-05 were included in the quarterly groundwater monitoring program.

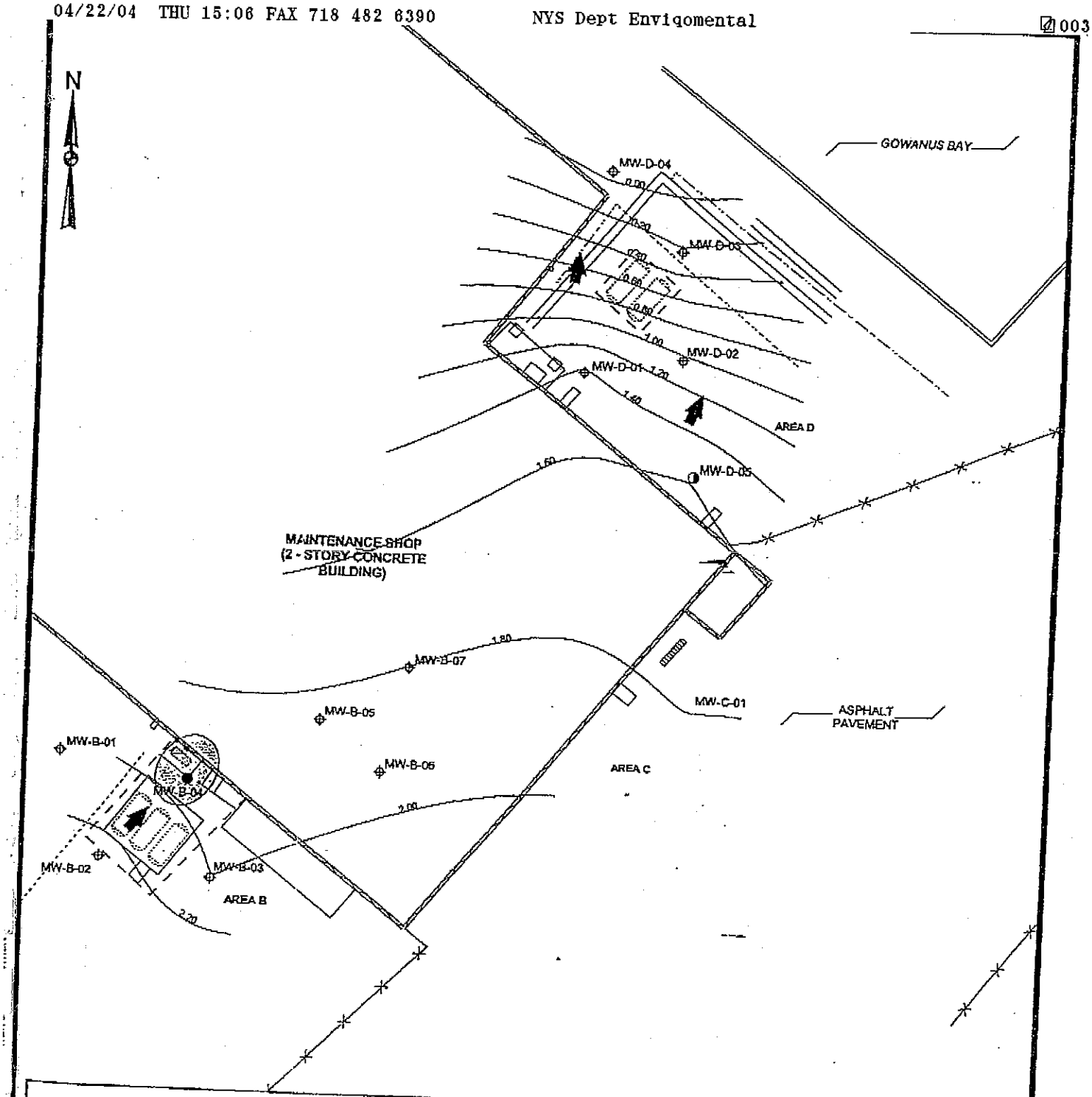
3.6.2 Goal of Monitoring Program

The goal of the groundwater monitoring program is to evaluate groundwater quality at the site. Groundwater samples are collected on a quarterly basis until the monitoring wells exhibit two consecutive rounds with no exceedances of the NYSDEC Groundwater Quality Criteria.

3.6.3 Summary of Results

On December 31, 2003, groundwater samples were collected from monitoring wells MW-B-04 and MW-D-05. However, due to the fact that a sample was not collected from MW-B-04 for SVOC analysis, URS returned to the site on January 8, 2004. The analytical results showed that minor exceedances of the NYSDEC Groundwater Quality Criteria were detected in the groundwater sample collected from monitoring well MW-B-04. No criteria were exceeded in well MW-D-05 (Table 3.6-1). The dissolved phase groundwater contamination plumes for December 2003 and August 2003 are shown on Figures 3.6-1 and 3.6-2, respectively.

Table 3.6-2 presents the water elevations in the wells currently included in the monitoring program. Free product has not been detected at the site (Table 3.6-2).



Legend

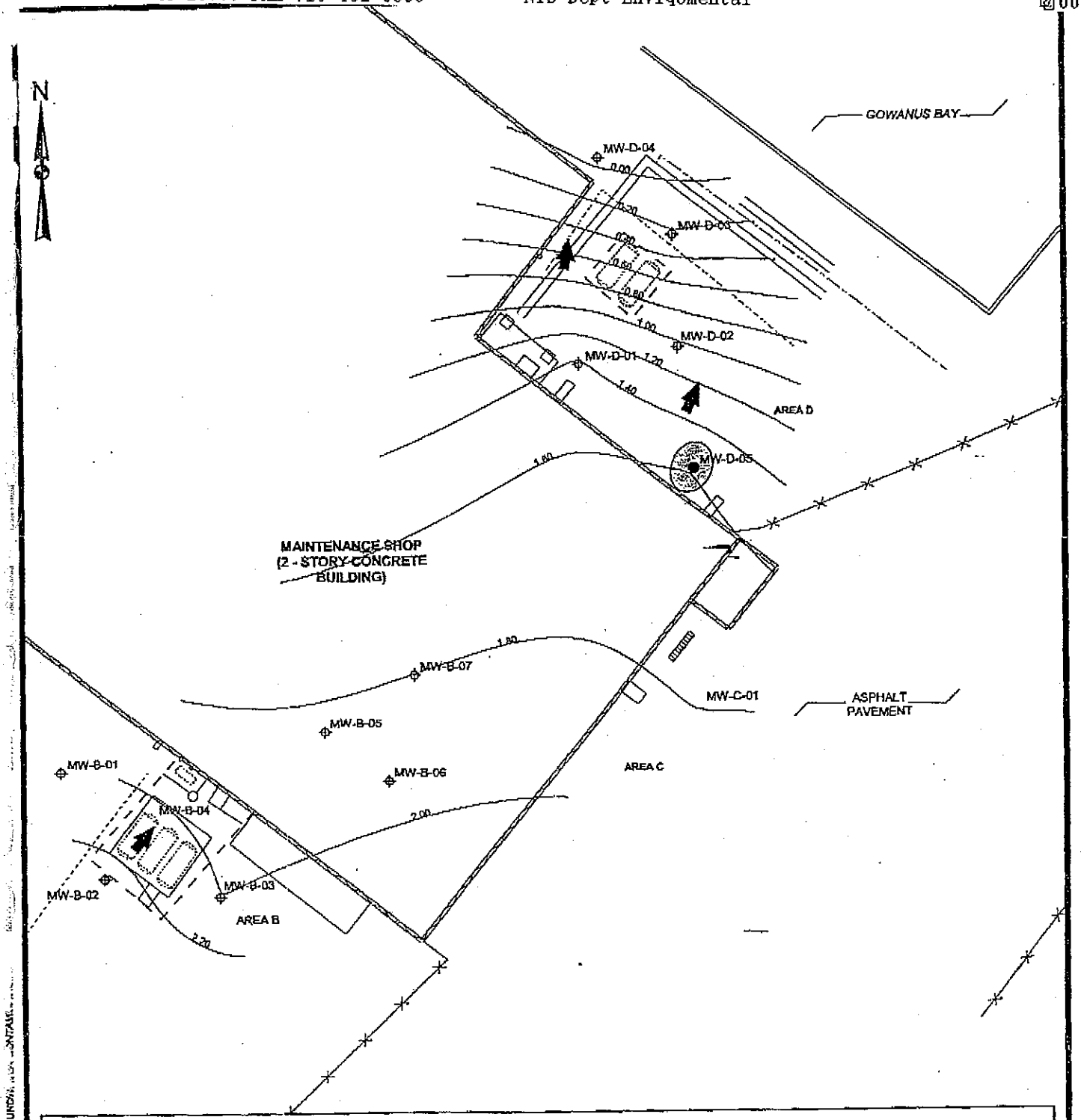
- Monitoring Well
- Monitoring Well (Not Sampled)
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 1.00 Groundwater Elevation Contour (8/28/03)
- Estimated Extent of Groundwater Contamination
- Groundwater Flow Direction (8/28/03)

40 0 40 Feet

URS

BROOKLYN MARINE TERMINAL
GROUNDWATER CONTAMINATION
(DECEMBER 2003 - AREAS B, C & D)

FIGURE 3.6-1



Legend

- Monitoring Well
- Monitoring Well (Not Sampled)
- No Compounds Detected
- No Compounds Exceed Criteria
- At Least One Compound Exceeds Criteria
- 1.00 Groundwater Elevation Contour (8/28/03)
- Estimated Extent of Groundwater Contamination
- Groundwater Flow Direction (8/28/03)

40 0 40 Feet

URS

BROOKLYN MARINE TERMINAL
GROUNDWATER CONTAMINATION
(AUGUST 2003 - AREAS B, C & D)

FIGURE 3.6-2

TABLE 3.6-1
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-B-02	MW-B-03	MW-B-04	MW-B-04	MW-B-04
Matrix			Water	Water	Water	Water	Water
Date Sampled:			02/24/03	02/24/03	02/24/03	08/28/03	12/31/03
Parameter	Units	Criteria*					
Volatiles							
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND	ND	ND
Ethylbenzene	UG/L	5	ND	1.0	55	ND	80
Toluene	UG/L	5	ND	ND	ND	ND	ND
Total Xylenes	UG/L	5	ND	1.8 J	85	ND	85
Isopropylbenzene	UG/L	5	ND	ND	4.4	ND	8.2
n-Propylbenzene	UG/L	5	ND	ND	12	ND	22
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	ND	2.1	69	ND	89
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	23	ND	7.1
sec-Butylbenzene	UG/L	5	ND	ND	ND	ND	1.4
n-Butylbenzene	UG/L	5	ND	ND	ND	ND	ND
Total Volatiles	UG/L		ND	4.9	248.4	ND	292.7
Semivolatiles							
Naphthalene	UG/L	10	ND	ND	14	ND	15
Acenaphthene	UG/L	20	ND	5.0 J	1.8 J	ND	NA
Anthracene	UG/L	50	ND	ND	ND	ND	NA
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	NA
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	NA
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	NA
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	NA
Chrysene	UG/L	0.002	ND	ND	ND	ND	NA
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	NA
Fluoranthene	UG/L	50	ND	2.6 J	ND	ND	NA
Fluorene	UG/L	50	ND	ND	ND	ND	NA
Phenanthrene	UG/L	50	ND	ND	ND	ND	NA
Pyrene	UG/L	50	ND	4.1 J	2.0 J	ND	NA
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	NA
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	NA
Total Semivolatiles	UG/L		ND	11.7	17.8	ND	15

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

(oval) Concentration exceeds criteria.

R - Rejected Value.

(tblRES.LOGDATE Between #1/1/03# And #1/6/04#)

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected. ND J - Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: ?, 10/29/03, GEK 03/25/03 J:\35446\DB\program\NYCDOC.mde 2/26/04

TABLE 3.6-1
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-B-04	MW-C-01	MW-D-01	MW-D-03	MW-D-04
Matrix			Water	Water	Water	Water	Water
Date Sampled:			01/08/04	02/24/03	02/27/03	02/27/03	02/27/03
Parameter	Units	Criteria*					
Volatiles							
Ethyl t-Butyl Ether	UG/L	10	NA	ND	ND	ND	ND
Benzene	UG/L	1	NA	ND	ND	ND	ND
Ethylbenzene	UG/L	5	NA	ND	ND	ND	ND
Toluene	UG/L	5	NA	ND	ND	ND	ND
Total Xylenes	UG/L	5	NA	ND	ND	ND	ND
Isopropylbenzene	UG/L	5	NA	ND	ND	ND	ND
n-Propylbenzene	UG/L	5	NA	ND	1.3	ND	ND
p-Cymene (p-Isopropyltoluene)	UG/L	5	NA	ND	ND	ND	ND
tert-Butylbenzene	UG/L	5	NA	ND	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	NA	ND	1.2	ND	ND
1,3,5-Trimethylbenzene	UG/L	5	NA	ND	ND	ND	ND
sec-Butylbenzene	UG/L	5	NA	ND	ND	ND	ND
n-Butylbenzene	UG/L	5	NA	ND	ND	ND	ND
Total Volatiles	UG/L		ND	ND	2.5	ND	ND
Semivolatiles							
Naphthalene	UG/L	10	51	ND	ND	ND	ND
Acenaphthene	UG/L	20	ND	ND	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND	ND	ND
Pyrene	UG/L	50	1.8 J	1.1 J	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND	ND	ND
Total Semivolatiles	UG/L		52.8	1.1	ND	ND	ND

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.

(blRES.LOGDATE Between #1/1/03# And #1/8/04#)

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected ND J -Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: ?, 10/29/03, GEK 03/25/03 J:\35448\DB\program\NYCDDC.mde 2/26/04

TABLE 3.6-1
BROOKLYN MARINE TERMINAL
GROUNDWATER ANALYTICAL RESULTS

Sample ID:			MW-D-05	MW-D-05	MW-D-05
Matrix			Water	Water	Water
Date Sampled:			02/27/03	08/28/03	12/31/03
Parameter	Units	Criteria*			
Volatiles					
Methyl t-Butyl Ether	UG/L	10	ND	ND	ND
Benzene	UG/L	1	ND	ND	ND
Ethylbenzene	UG/L	5	11	ND	2.2
Toluene	UG/L	5	ND	ND	ND
Total Xylenes	UG/L	5	3.5	6.7	ND
Isopropylbenzene	UG/L	5	1.6	ND	ND
n-Propylbenzene	UG/L	5	5.5	ND	2.5
p-Cymene (p-Isopropyltoluene)	UG/L	5	ND	ND	ND
tert-Butylbenzene	UG/L	5	ND	ND	ND
1,2,4-Trimethylbenzene	UG/L	5	6.7	7.6	3.0
1,3,5-Trimethylbenzene	UG/L	5	ND	ND	ND
sec-Butylbenzene	UG/L	5	ND	ND	ND
n-Butylbenzene	UG/L	5	ND	ND	ND
Total Volatiles	UG/L		28.3	14.5	7.7
Semivolatiles					
Naphthalene	UG/L	10	2.7 J	ND	1.3 J
Acenaphthene	UG/L	20	ND	ND	ND
Anthracene	UG/L	50	ND	ND	ND
Benzo(a)anthracene	UG/L	0.002	ND	ND	ND
Benzo(a)pyrene	UG/L	ND	ND	ND	ND
Benzo(b)fluoranthene	UG/L	0.002	ND	ND	ND
Benzo(k)fluoranthene	UG/L	0.002	ND	ND	ND
Chrysene	UG/L	0.002	ND	ND	ND
Dibenz(a,h)anthracene	UG/L	50	ND	ND	ND
Fluoranthene	UG/L	50	ND	ND	ND
Fluorene	UG/L	50	ND	ND	ND
Phenanthrene	UG/L	50	ND	ND	ND
Pyrene	UG/L	50	ND	ND	ND
Benzo(g,h,i)perylene	UG/L	0.002	ND	ND	ND
Indeno(1,2,3-cd)pyrene	UG/L	0.002	ND	ND	ND
Total Semivolatiles	UG/L		2.7	ND	1.3

* - NYSDEC Groundwater Criteria, TOGS 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations", June 1998 (updated April 2000).

Concentration exceeds criteria.

R - Rejected Value.

(tblRES_LOGDATE Between #1/1/03# And #1/8/04#)

J - Estimated concentration detected below the quantitation limit, or due to quality control outliers.

ND - Not Detected. ND J - Not Detected. Quantitation limit is an estimate due to quality control outliers.

D - Concentration reported from a secondary dilution analysis.

NA - Sample not analyzed for this analyte.

B - Compound detected in associated method blank.

** Naphthalene can be analyzed as both a volatile and semivolatile compound. The maximum detected concentration from either test is reported under the semivolatile section.

Checked By: 7, 10/29/03, GEK 03/25/03 J:\35446\DB\program\NYCDDC.mde 2/26/04

APPENDIX B

TEST PIT AND SOIL BORING LOGS

TRC
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TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000	CLIENT NYCEDC
TEST PIT NO. TP A-1 NYPD Impound Lot	
LOCATION South Brooklyn Marine Terminal	ELEVATION & DATUM
CONTRACTOR American Environmental	OPERATOR Gene
TRC INSPECTOR Dave Bachand	
EQUIPMENT Bachhoe	DATE START/COMPLETION 8/7/2003 8/7/2003
STATUS open	
SAMPLER TYPE n/a	TOTAL DEPTH 0.5 '
WATER LEVEL OBS. STAB.	

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
		6" Asphalt	
1		Concrete slab Refusal at 6"	
5			
10			
15		Test pit dimensions 12'x8'x0.5'	

TRC
Customer-Focused Solutions

TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000	CLIENT NYCEDC
TEST PIT NO. TP A-2 NYPD Impound Lot	
LOCATION South Brooklyn Marine Terminal	
ELEVATION & DATUM	
CONTRACTOR American Environmental	OPERATOR Gene
TRC INSPECTOR Dave Bachand	
EQUIPMENT Bachhoe	
DATE START/COMPLETION 8/7/2003 8/7/2003	STATUS open
SAMPLER TYPE n/a	
TOTAL DEPTH 0.5 '	WATER LEVEL OBS. STAB.

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
		6" Asphalt	
1		Concrete slab Refusal at 6"	
5			
10			
15		Test pit dimensions 5'x3'x0.5'	

TRC
Customer-Focused Solutions

TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000	CLIENT NYCEDC	TEST PIT NO. South of N Shed	TP B-1
LOCATION South Brooklyn Marine Terminal		ELEVATION & DATUM	
CONTRACTOR American Environmental	OPERATOR Gene	TRC INSPECTOR Dave Bachand	
EQUIPMENT Bachhoe		DATE START/COMPLETION 8/7/2003 8/7/2003	STATUS open
SAMPLER TYPE n/a		TOTAL DEPTH 4.6'	WATER LEVEL OBS. STAB.

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
1		6" Asphalt 8" Concrete Slab 3.5' Red/brown, moist, f/m SAND (metal object (distorted H pile ?), set in concrete unearthed 3' below grade)	0
5		EOE 4.6'	
10			
15		Test pit dimensions 6'x4'x4'	

TRC
Customer-Focused Solutions

TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000	CLIENT NYCEDC	TEST PIT NO. South of N Shed	TP B-2
LOCATION South Brooklyn Marine Terminal		ELEVATION & DATUM	
CONTRACTOR American Environmental	OPERATOR Gene	TRC INSPECTOR Dave Bachand	
EQUIPMENT Bachhoe		DATE START/COMPLETION 8/7/2003 8/7/2003	STATUS open
SAMPLER TYPE n/a		TOTAL DEPTH 8"	WATER LEVEL OBS. STAB.

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
1		8" Asphalt Concrete Slab	
5		Refusal 8"	
10			
15		Test pit dimensions 15'x3'x8"	

TRC
Customer-Focused Solutions

TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000	CLIENT NYCEDC	TEST PIT NO. TP C-1 Industry City Parking Lot	
LOCATION South Brooklyn Marine Terminal		ELEVATION & DATUM	
CONTRACTOR American Environmental	OPERATOR Gene	TRC INSPECTOR Dave Bachand	
EQUIPMENT Bachhoe		DATE START/COMPLETION 8/7/2003 8/7/2003	STATUS open
SAMPLER TYPE n/a		TOTAL DEPTH 3.5'	WATER LEVEL OBS. STAB.

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
1		8" Asphalt 8"Concrete slab 2', Red/brown, moist SAND, some Gravel (material contained within brick foundation structure)	0
5		Refusal 3.5'	
10			
15		Test pit dimensions 15'x6'x3.5'	

TRC
Customer-Focused Solutions

TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000	CLIENT NYCEDC	TEST PIT NO. TP C-2 Industry City Parking Lot	
LOCATION South Brooklyn Marine Terminal		ELEVATION & DATUM	
CONTRACTOR American Environmental	OPERATOR Gene	TRC INSPECTOR Dave Bachand	
EQUIPMENT Bachhoe		DATE START/COMPLETION 8/7/2003 8/7/2003	STATUS open
SAMPLER TYPE n/a		TOTAL DEPTH 1'	WATER LEVEL OBS. STAB.

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
1		12" Asphalt Concrete slab	
5		Refusal 1'	
10			
15		Test pit dimensions 5'x3'x1'	

TRC
Customer-Focused Solutions

TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000	CLIENT NYCEDC	TEST PIT NO. Dealer Storage Lot	TP D-1
LOCATION South Brooklyn Marine Terminal		ELEVATION & DATUM	
CONTRACTOR American Environmental	OPERATOR Gene	TRC INSPECTOR Dave Bachand	
EQUIPMENT Bachhoe		DATE START/COMPLETION 8/7/2003 8/7/2003	STATUS open
SAMPLER TYPE n/a		TOTAL DEPTH 6"	WATER LEVEL OBS. STAB.

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
1		6" Asphalt Concrete Slab	
5		Refusal 6"	
10			
15		Test pit dimensions 6'x3'x6"	

TRC
Customer-Focused Solutions

TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000	CLIENT NYCEDC	TEST PIT NO. TP E-1 Industry City Parking Lot	
LOCATION South Brooklyn Marine Terminal		ELEVATION & DATUM	
CONTRACTOR American Environmental	OPERATOR Gene	TRC INSPECTOR Dave Bachand	
EQUIPMENT Bachhoe		DATE START/COMPLETION 8/7/2003 8/7/2003	STATUS open
SAMPLER TYPE n/a		TOTAL DEPTH 4"	WATER LEVEL OBS. STAB.

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
		4" Asphalt	
1		Concrete Slab Refusal 4"	
5			
10			
15		Test pit dimensions 5'x3'x4"	

TRC
Customer-Focused Solutions

TEST PIT LOG

Sheet 1 of 1

PROJECT NO. 31193-0210-00000 CLIENT NYCEDC	TEST PIT NO. TP E-2 Industry City Parking Lot
LOCATION South Brooklyn Marine Terminal	ELEVATION & DATUM
CONTRACTOR American Environmental OPERATOR Gene	TRC INSPECTOR Dave Bachand
EQUIPMENT Bachhoe	DATE START/COMPLETION 8/7/2003 8/7/2003 STATUS open
SAMPLER TYPE n/a	TOTAL DEPTH 4" WATER LEVEL OBS. STAB.

DEPTH (ftbg)	WATER (ftbg)	SAMPLE DESCRIPTION	PID (ppmv)
		4" Asphalt	
1		Concrete Slab Refusal 4"	
5			
10			
15		Test pit dimensions 18'x5'x4"	

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-27
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 8 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
1	0-4	36		0	3" ASPHALT 1', dry, DECOMPOSED ASPHALT 1.5' Black, damp, f/m SAND and PULVARIZED CONCRETE 6" Red/brown, moist, f/m SAND, little Silt and Clay	0 ▲	Soil sample collected from 0-4' MC sampler
2							
3							
4	4-8	24		0	2' Red/brown, moist, f/m SAND, some Silt and Clay		
5							
8					EOB 8'		
10							
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-28
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 2 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
1	0-2	12		1	6" Asphalt 6" Black, moist to wet, f/m SAND 6" Red/brown, moist, f/m SAND, CRUSHED BRICK, little little Silt and Clay	0	Soil sample collected from 0-2' MC sampler
2					Refusal 2'		
3							
4							
5							
8							
10							
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-29
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 8 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
					6" Asphalt 4" Concrete	0	
1	0-4	36		5.7	3" Black, moist to wet, f/c SAND, trace fines		
2							Soil sample collected from 0-4' MC sampler
3							
4	4-8	48		1	2' same		
5					2' Red/brown, moist to wet, f/m SAND	5	
					wet	▲	water in boring
8					EOB 8'	8	
10							
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

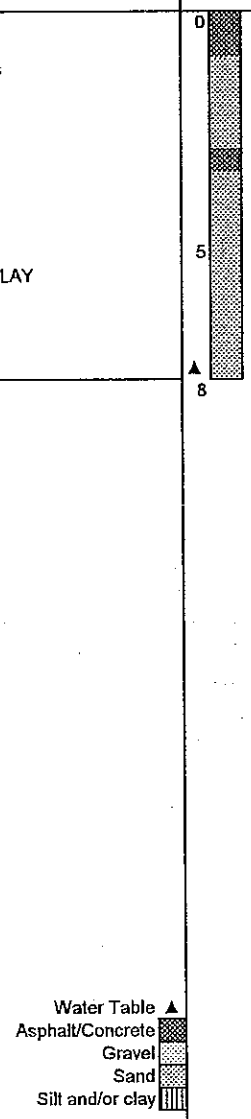
TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-30
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 8 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
1	0-4	36		2.4	6" Asphalt 4" Concrete 2' Black, moist to wet, f/c SAND, trace fines 1' TAR & ASPHALT		Soil sample collected from 0-4' MC sampler
2							
3							
4	4-8	48		0.4	1' Black, moist, f/c SAND, trace fines 2' Brown, moist, f/m SAND, some fines 2" CRUSHED ROCK 10" Brown, moist to wet, SAND, SILT and CLAY		
5							
8					EOB 8'		
10							
15							



TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-31
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 8 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
1	0-4	24		4	6" ASPHALT 1' CONCRETE 1' Light Grey, dry PULVERIZED CONCRETE (carry down) 1' Red/brown, wet, f SAND, trace Silt and Clay	0 ▲	Soil sample collected from 0-4' MC sampler
2							
3							
4	4-8	36		0.6	3' Red/brown, moist to wet, f/m SAND, some Silt and Clay		
5							
8							
10							
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-32
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 8 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
					3" stone 1" (track ballast)	0	
	0-4	36		11	1.5' Black, damp, f/m SAND, little Cinders & Ash, little		
1					Silt		
2					1.5' Red/brown, damp, SILT, little f Sand, little Clay		Soil sample collected from 0-4' MC sampler
3							
4	4-8	18		0	1.5' Red/brown, moist, SILT, little f Sand, little Clay		
5						5	
					Same, wet	▲	
8					EOB 8'	8	
10							
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-33
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 8 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
					8" Asphalt 8" Concrete	0	
1	0-4	24		5.6	2' Dark Grey, damp, fine SAND, trace fines		Soil sample B-33 collected from 0-4' MC sample
2							
3							
4							
	4-8	48		3.5	1' Black, moist, f/m SAND, trace fines		
5					1' Brown, moist, fine SAND	5	
					6" Grey, moist, CLAY, trace fine Sand		
					1.5' Brown, wet, fine SAND		
						▲	
8					EOB 8'	8	
10							
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-34
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 3.5 ft.

Depth (feet)	Sample Interval (fbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
	0-3.5	12		0.5	6" Asphalt Black, moist, f/m SAND, trace fines	0	Soil sample B-34 collected from 0-3.5' MC sampler
1							
2							
3					Concrete in tip		
4					Refusal 3.5'		
5							
8							
10							
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-35
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 12 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
					10" Concrete	0	
1	0-4	36		360	1.5' Black, moist, f/c SAND, trace fines		Strong petroleum odor
					1.5' Tan, moist, fine SAND and SILT		
2							Soil sample collected from 0-4' MC sampler
3							
4							
	4-8	36		17	1' Tan, moist, fine SAND and SILT		
5					2' Black, moist m/c SAND, trace Gravel	5	mild petroleum odor
							Soil sample collected from 4-8' MC sampler
						▲	
8	8-12	24		75	1' Black, wet, m/c SAND, some Silt and Clay	8	
					1' Dark grey, wet, CLAY		Strong petroleum odor
10							
						12	
					EOB 12'		
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-36
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 12 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
					10" Concrete	0	
1	0-4	36		477	3' Black, moist, m/c SAND, trace Gravel and fines		Strong petroleum odor
2							Soil sample collected from 0-4' MC sampler
3							
4							
5	4-8	36		22	Brown, wet, m/c SAND and Gravel, some Clay	5	Petroleum odor
8	8-10	12		75	1' same	▲ 8	Petroleum odor
10					EOB 10'		
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-37
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 4 ft.

Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
1	0-4	36		180	10" Concrete 1' , Black, moist, m/c SAND and GRAVEL, trace fines 1' Brown, moist, f/m SAND, little Silt and Clay 1' Light grey, pulverized rock/concrete	0	Mild petroleum odor Soil sample collected from 0-4' MC sampler
4 5	4-8	0			Refusal 4'		

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

TRC Environmental
Boring Log / Monitoring Well Construction Diagram

Client Name: NYCEDC
Project Number: 31193-0210-00000
Project Location: South Brooklyn Marine Terminal
TRC Inspector: D. Bachand

Drilling Company: ADT
Drillers:
Drill Rig Type: ATV Geoprobe 66DT
Sampler Type: Micro-core sampler with acetate liner

Boring: B-38
Date Started: 8/14/03
Date Completed: 8/14/03
Total Depth Drilled: 12 ft.

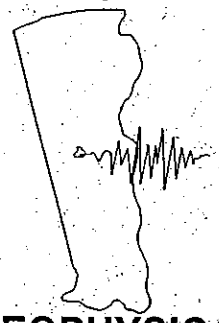
Depth (feet)	Sample Interval (ftbg)	Recovery (inches)	Blows (per 6")	PID (ppmv)	Soil Description	Lithology	Comments
					10" Concrete	0	
1	0-4	36		10	3' Red/brown, moist, f/m SAND, trace fines (intermittent black staining)		Mild petroleum odor
2							Soil sample collected from 0-4' MC sampler
3							
4					6" Red/brown, moist, f/m SAND, trace fines		
	4-8	36		35	1' Light grey, moist, pulverized concrete		
5					1.5' Black, moist, m/c SAND, some Silt and Clay, little Gravel	5	mild petroleum odor
						▲	
8	8-12	24		56	1.5' Black, wet, m/c SAND, some Silt and Clay, little Gravel	8	Strong petroleum odor
10							Soil sample collected from 8-12' MC sampler
						12	
					EOB 12'		
15							

Water Table ▲
Asphalt/Concrete
Gravel
Sand
Silt and/or clay

APPENDIX C

GEOPHYSICAL SURVEY REPORT

BUCKS



GEOPHYSICAL
Corporation

GEOPHYSICAL INVESTIGATION

South Brooklyn Marine Terminal
Brooklyn, NY

FOR

TRC Environmental Corporation
Windsor, CT

by

BUCKS GEOPHYSICAL CORPORATION

December 2003

BUCKS GEOPHYSICAL Corporation

December 2, 2003

Dave Bachand
TRC Environmental Corporation
5 Waterside Crossing
Windsor, CT 06095

REPORT: GEOPHYSICAL INVESTIGATION
South Brooklyn Marine Terminal
Brooklyn, NY

Dear Mr. Bachand:

We are pleased to present our report of the geophysical investigation for the South Brooklyn Marine Terminal property in Brooklyn, NY. The investigation was performed on August 8, 2003.

If you have any questions concerning this report please contact us at 215-345-7193. We look forward to working with you in the future.

Respectfully submitted,
BUCKS GEOPHYSICAL CORPORATION

Matthew J. McMillen
Geophysicist

P.O. Box 388, Plumsteadville, PA 18949 Phone 215-345-7193
FAX 215-345-8553

1) INTRODUCTION AND PURPOSE

The South Brooklyn Marine Terminal property in Brooklyn, NY was the location of this geophysical survey. The survey was conducted on five areas of the property that was accessible to the geophysical instrumentation. Figures 1, 5, 9, 13, and 17 show the locations of all survey lines and extent of the geophysical coverage.

The purpose of this geophysical survey was to locate underground storage tanks, pipes and utilities, and to investigate subsurface conditions. Electromagnetic terrain conductivity (EM - 61) and magnetometry (MAG) were employed for the survey. Brief descriptions of each technique are given in Appendix A.

2) REFERENCE GRID

A reference grid was established to accurately locate the geophysical stations using a 300-foot measuring tape and paint. The survey lines were spaced 5 feet apart and were marked every 5 feet or 25 feet. Figures 1, 5, 9, 13, and 17 shows the locations of the survey lines and the extent of the geophysical coverage.

3) GEOPHYSICAL METHODOLOGY

3a) Electromagnetic Survey

Electromagnetic data were also gathered using a Geonics EM-61 high sensitivity metal detector which obtains data to an effective depth of approximately 6 feet.

Data were recorded on a Model 600 digital recorder. Both top and bottom coil readings (mV), along with the line number, and station location were recorded at each station. Field observations were noted in a field book. EM-61 data were collected at .25 second intervals (Approximately every 1.25 feet.) along survey lines spaced 5 feet apart. The data was downloaded to a laptop computer for processing and generation of a contour map.

3c) Magnetic Survey

Magnetic data were collected using a GEM Systems GSM-19G magnetometer. Magnetic data were collected at 5 foot intervals along survey lines spaced 5 feet apart. Data was downloaded to a laptop computer for processing and generation of a magnetic contour map.

4) INTERPRETATION

AREA A

The geophysical investigation of this area detected an anomalous area and a possible pipe or utility.

The anomalous area detected by the survey is located at approximately 1+15N to 1+23N, 1+19E to 1+29E. The cause of this area is unknown. Figure 2 shows the location of this area.

See Figure 3 for the location of the possible pipe or utility detected by the survey.

AREA B

The geophysical survey of this area detected three anomalous areas. These areas are located at approximately;

1) 1+00N to 1+20N, 1+00E to 1+10E
2) 1+18N to 1+28N, 1+17E to 1+24E
3) 1+06N to 1+50N, 1+16E to 1+50E.

The cause of the first area may be buried metal. The cause of the second area is unknown. The third area may be associated with possible utilities in this area. Figure 6 shows the locations of these anomalous areas.

AREA C

The geophysical survey of Area C detected three anomalous areas, a possible large pipe, and an area which may be a concrete slab or foundation wall.

The three anomalous areas detected by the survey are located at approximately;

1) 1+15N to 1+24N, 1+00E to 1+10E
2) 1+31N to 1+38N, 1+07E to 1+14E
3) 1+30N to 1+37N, 1+23E to 1+37E

The cause of the first area may be buried metal. The cause of the second and third areas is unknown. Figure 10 shows the locations of these areas.

Figure 10 shows the location of the possible pipe that crosses the survey area in the north south direction.

An EM high on the southern portion of the survey area may be a reinforced concrete slab or a foundation wall or pipe.

AREA D

The geophysical survey of this area detected two anomalous areas. These areas are located at approximately;

1) 1+30N to 1+37N, 1+00E to 1+06E
2) 1+20N to 1+25N, 1+30E to 1+45E

The cause of the first area is unknown. The cause of the second area may be pipe. Figure 14 shows the location of this area.

AREA E

Three anomalous areas and an area of high magnetic values were detected by the survey of this area.

The three anomalous areas were detected at approximately;

1) 1+30N to 1+45N, 1+00E to 1+30E
2) 1+26N to 1+34N, 1+37E to 1+45E
3) 1+12N to 1+22N, 1+40E to 1+49E

The cause of these areas is unknown. Figure 18 shows the locations of these areas.

A magnetic high was detected by the survey at approximately 1+16N to 1+23N, 1+20E to 1+28E. This area may be buried metal such as a manhole cover. Figure 18 shows the location of this area.

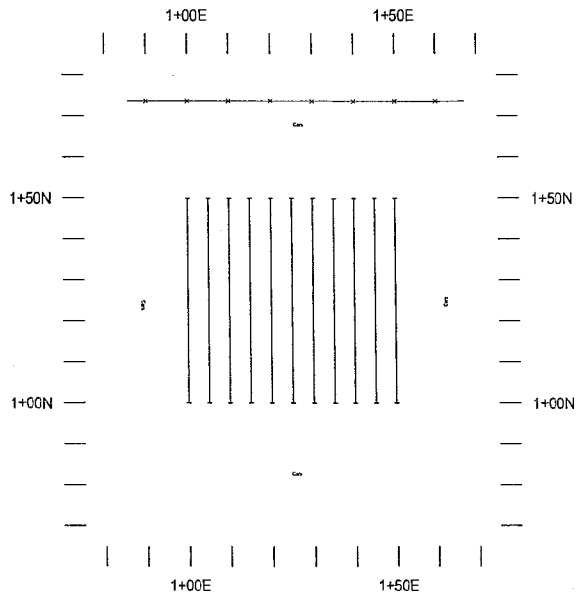
5) CONCLUSIONS and RECOMMENDATIONS

The geophysical investigation of five areas of the South Brooklyn Marine Terminal property in Brooklyn, NY detected numerous anomalous areas, several possible pipes or utilities, a magnetic high, and an area which may be reinforced concrete, a pipe, or a foundation wall.

Further investigation of the anomalous areas and the magnetic high detected in Area E, using other means is recommended to determine the exact cause of each area. Figure 2, 6, 10, 14, and 18 show the locations of these areas.

Figure 2, 6, 10, 14, and 18 show the locations of all anomalies or areas detected by the geophysical survey.

FIGURES



Explanation

EM-61 and Mag

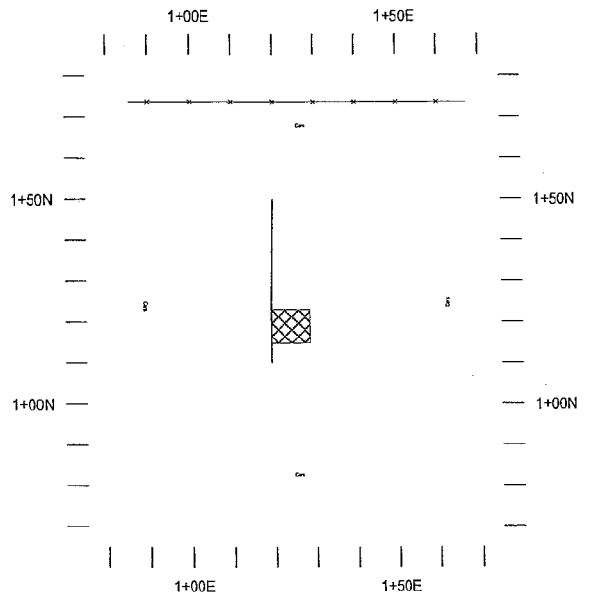
SCALE

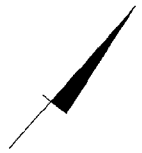
0 15 30 60

Feet

FIGURE 1
GEOPHYSICAL COVERAGE, AREA A
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949





Explanation

Possible pipe or utility

Anomalous area

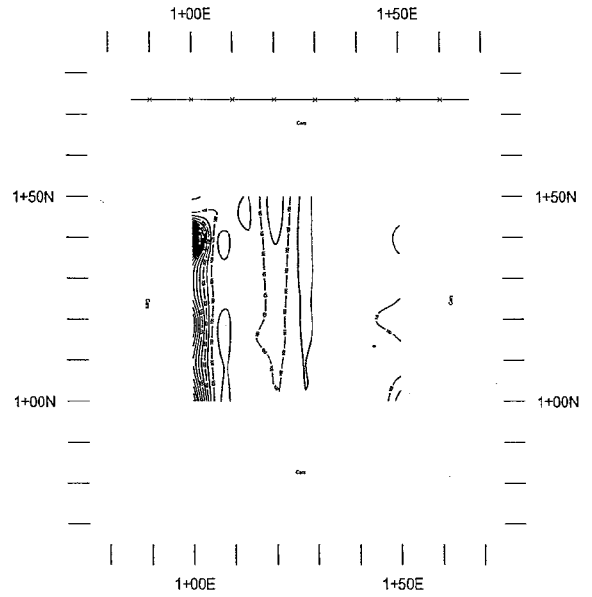
SCALE

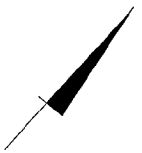
0 15 30 60

Feet

FIGURE 2
INTERPRETATION, AREA A
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949





Explanation

100 100 mv contour interval

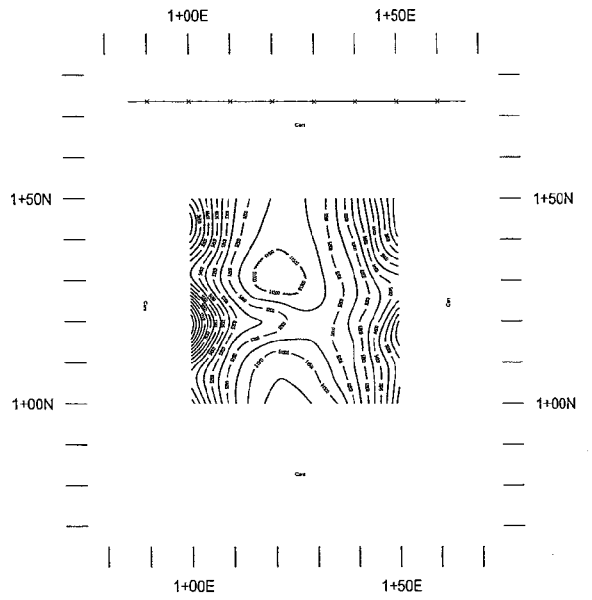
SCALE

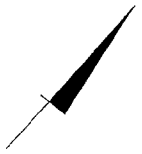
0 15 30 60

Feet

FIGURE 3
EM-61 TOP COIL CONTOUR MAP, AREA A
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949





Explanation

52000 500 gamma contour interval

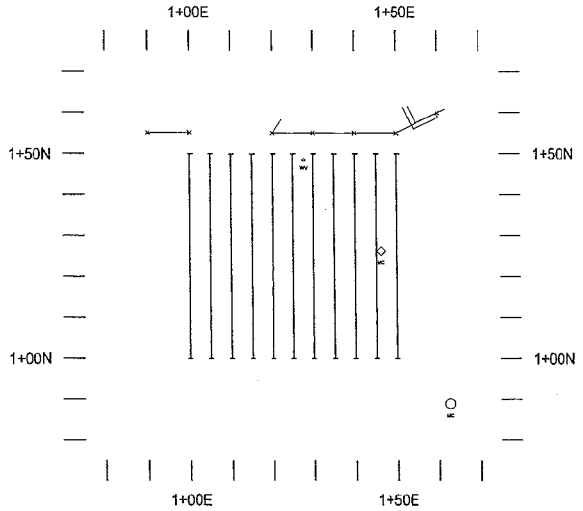
SCALE

0 15 30 60

Feet

FIGURE 4
MAGNETIC CONTOUR MAP, AREA A
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

EM - 61 and Mag

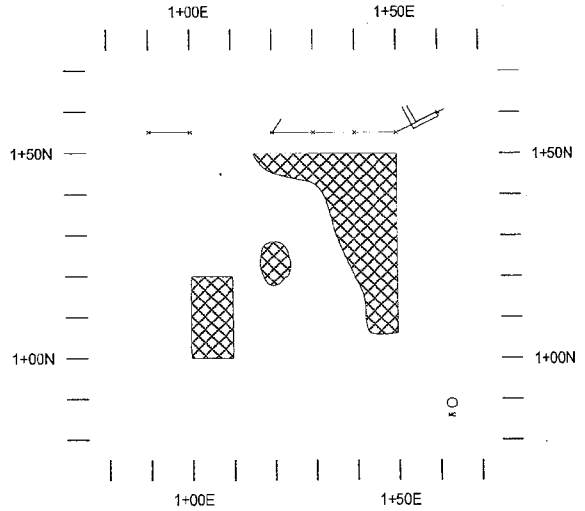
SCALE

0 15 30 60

Feet

FIGURE 5
GEOPHYSICAL COVERAGE, AREA B
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

Anomalous area

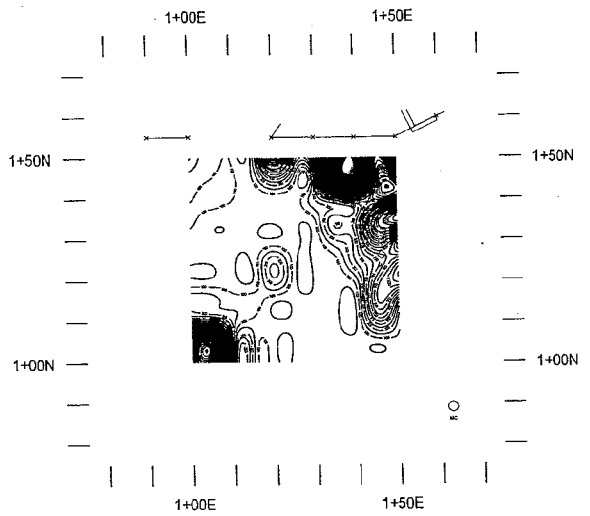
SCALE

0 15 30 60

Feet

FIGURE 6
INTERPRETATION, AREA B
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

1000 100 mv contour interval

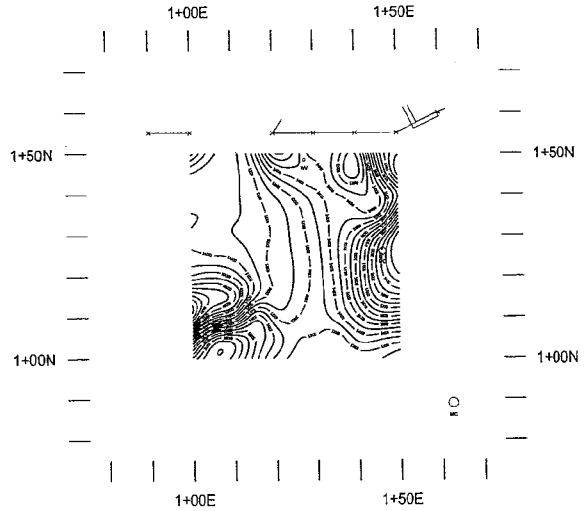
SCALE

0 15 30 60

Feet

FIGURE 7
EM-61 TOP COIL CONTOUR MAP, AREA B
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

52000 500 gamma contour interval

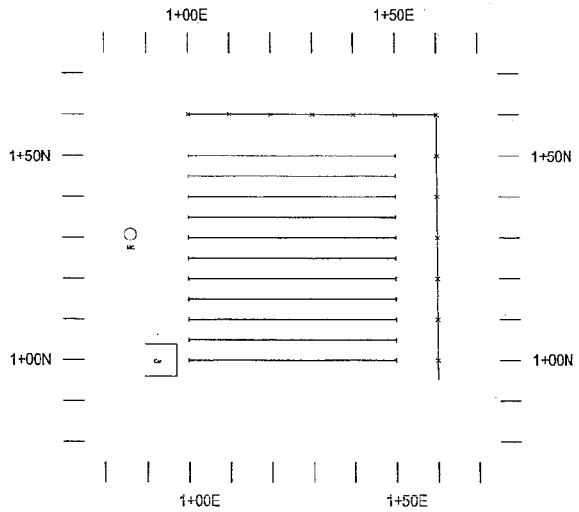
SCALE

0 15 30 60

Feet

FIGURE 8
MAGNETIC CONTOUR MAP, AREA B
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

EM - 61 and Mag

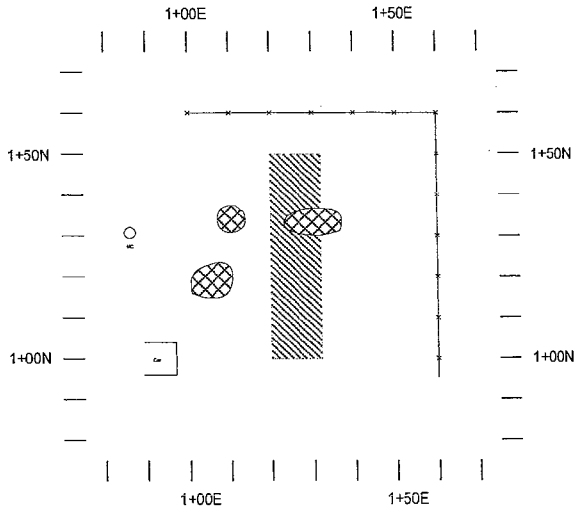
SCALE

0 15 30 60

Feet

FIGURE 9
GEOPHYSICAL COVERAGE, AREA C
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



SCALE

0 15 30 60

Feet

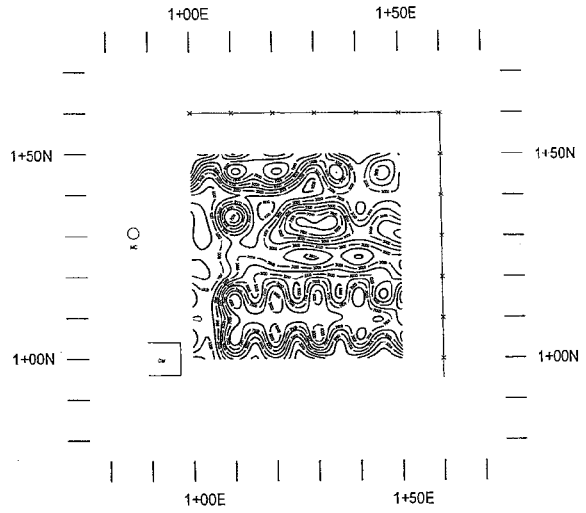
Explanation

Possible pipe or utility

Anomalous area

FIGURE 10
INTERPRETATION, AREA C
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

2000 1000 mv contour interval

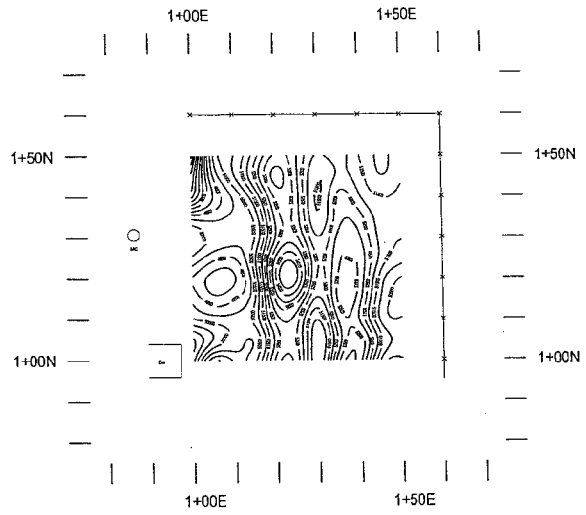
SCALE

0 15 30 60

Feet

FIGURE 11
EM-61TOP COIL CONTOUR MAP, AREA C
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

52000 500 gamma contour interval

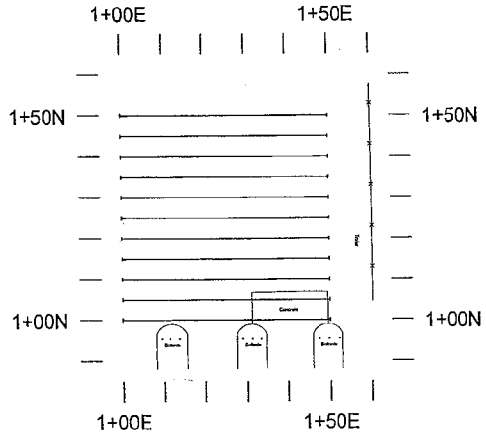
SCALE

0 15 30 60

Feet

FIGURE 12
MAGNETIC CONTOUR MAP, AREA C
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

EM - 61 and Mag

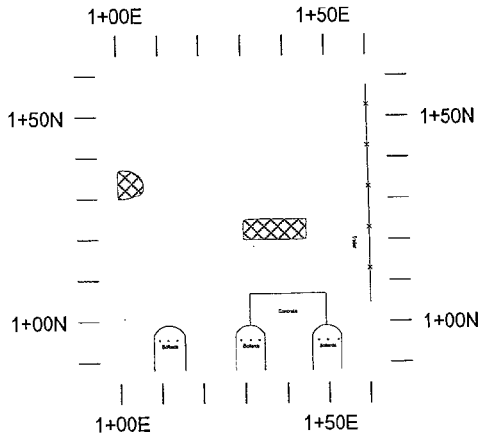
SCALE

0 15 30 60

Feet

FIGURE 13
GEOPHYSICAL COVERAGE, AREA D
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

Anomalous area

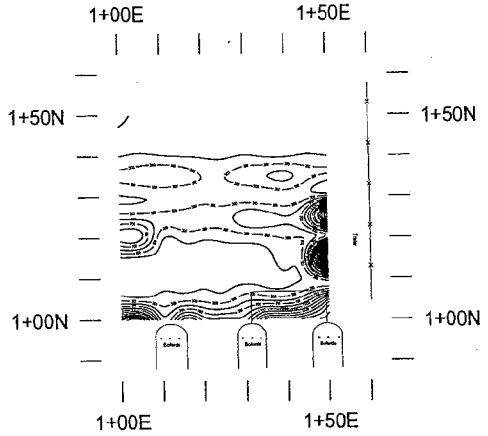
SCALE

0 15 30 60

Feet

FIGURE 14
INTERPRETATION, AREA D
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

700 200 mv contour interval

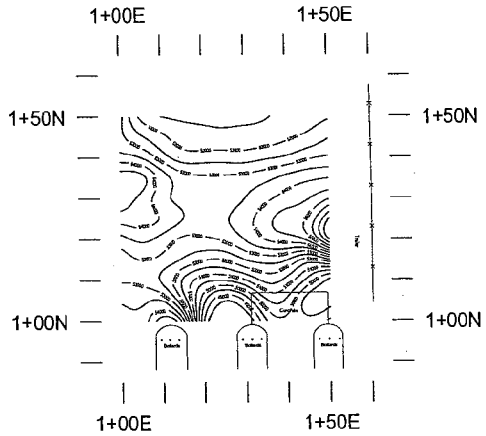
SCALE

0 15 30 60

Feet

FIGURE 15
EM-61TOP COIL CONTOUR MAP, AREA D
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

52000 500 gamma contour interval

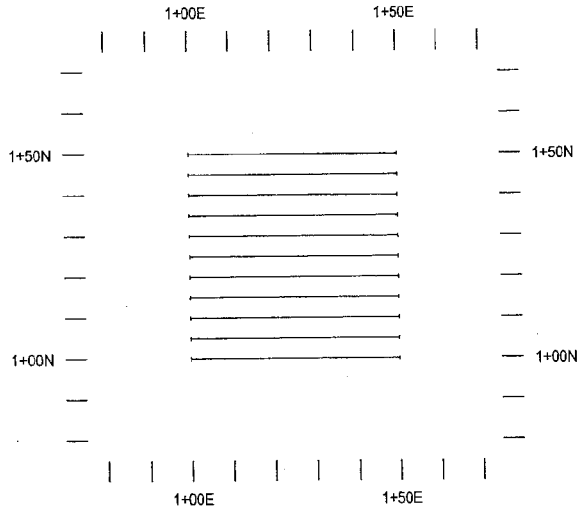
SCALE

0 15 30 60

Feet

FIGURE 16
MAGNETIC CONTOUR MAP, AREA D
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



Explanation

EM - 61 and Mag

SCALE

0 15 30 60

Feet

FIGURE 17
GEOPHYSICAL COVERAGE, AREA E
South Brooklyn Marine Terminal
Brooklyn, NY
prepared for
TRC Environmental Corporation
Windsor, CT
December 2003

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949

APPENDIX A

MAGNETOMETER

A magnetometer is a rapid, effective and nondestructive instrument used to locate buried ferrous material (drums, pipes, mineral deposits, archaeological objects, etc.). The instrument is operated and carried by one person, and contains a digital memory for data storage.

The proton magnetometer utilizes the precession of spinning protons to measure the intensity of the earth's magnetic field. The protons act as small magnetic dipoles. A coil is charged with an electrical current which creates a magnetic field, which temporarily aligns the protons with respect to the coil. The current is then removed, and the protons spin in the direction of the earth's magnetic field. As the protons spin they generate a small electrical signal, which is measured and converted into a value of magnetic intensity (gammas) by the magnetometer. The intensity of the earth's magnetic field is affected by ferrous material.

Interpretation of magnetometer data includes recognizing and characterizing local changes in the intensity of the earth's magnetic field. Analysis usually involves contouring and profiling the data. The size, shape, and magnitude of an anomaly depends on the mass, orientation and depth of the buried target (drums, mineral deposits, etc.). Modeling of the data can provide a rough estimate of the mass and depth of the target, but is usually reserved for large-scale geological surveys.

Several factors can limit the effectiveness of the magnetometry method including the proximity of cultural interferences (such as buildings, fences and reinforced concrete), and the size, depth and magnetic susceptibility of the target.

ELECTROMAGNETICS (EM-61)

The EM-61 is a high sensitivity, high resolution, time domain metal detector using the principles of electromagnetic induction. The EM-61 is portable, rapid, and nondestructive. It has a backpack transmitter and two receiver coils, which are mounted on a harness or wheels, so that handling and data gathering is easily achieved by one operator.

The time domain method involves measuring the response of the ground to an induced electromagnetic field. The EM-61 transmitter generates a pulsed electromagnetic field which induces eddy currents in nearby metallic objects. The decay of these eddy currents is measured by the two receiver coils. The results are recorded on the data logger as two channel information. The EM-61 data is recorded in millivolts (mV).

The EM-61 is most sensitive to metallic objects directly below the coils which allows for precise locations of individual metal objects. The approximate depth of investigation for this instrument is 6 feet below ground surface.

APPENDIX D

LABORATORY ANALYTICAL REPORT

CHEMTECH 284 Sheffield Street • Mountainside, NJ 07092 Phone: 908.789.8900 Fax: 908.789.8922

ANALYTICAL RESULTS SUMMARY

PROJECT NAME: EDC-SBMT

TRC ENVIRONMENTAL CORP., CT
5 WATERSIDE CROSSING
WINDSOR, CT 06095
8602989692

CHEMTECH PROJECT NO. R3873
ATTENTION: Jim Peronto

Chemtech

Hit Summary Report

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Test: VOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B270-2							
R3873-01	B270-2	SOIL	Methylene Chloride	4.6	J	5.9	1.5	ug/Kg
R3873-01	B270-2	SOIL	Toluene	2.6	J	5.9	1.3	ug/Kg
			Total VOC's:	7.20				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	7.20				
Client ID:	B280-2							
R3873-02	B280-2	SOIL	Methylene Chloride	3.7	J	5.6	1.5	ug/Kg
R3873-02	B280-2	SOIL	m/p-Xylenes	5.1	J	5.6	3.1	ug/Kg
R3873-02	B280-2	SOIL	o-Xylene	1.3	J	5.6	1.2	ug/Kg
			Total VOC's:	10.10				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	10.10				
Client ID:	B291-3							
R3873-03	B291-3	SOIL	Methylene Chloride	4.0	J	5.6	1.4	ug/Kg
R3873-03	B291-3	SOIL	Toluene	3.0	J	5.6	1.2	ug/Kg
			Total VOC's:	7.00				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	7.00				
Client ID:	B301-5							
R3873-04	B301-5	SOIL	Toluene	2.5	J	5.3	1.2	ug/Kg
			Total VOC's:	2.50				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	2.50				
Client ID:	B311-4							
R3873-05	B311-4	SOIL	Methylene Chloride	4.2	J	5.6	1.4	ug/Kg
			Total VOC's:	4.20				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	4.20				
Client ID:	B320-2							
R3873-06	B320-2	SOIL	Methylene Chloride	4.2	J	5.7	1.5	ug/Kg
R3873-06	B320-2	SOIL	Toluene	4.8	J	5.7	1.2	ug/Kg
			Total VOC's:	9.00				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	9.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Test: VOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B331.5-5.5							
R3873-07	B331.5-5.5	SOIL	Methylene Chloride	12		5.7	1.5	ug/Kg
R3873-07	B331.5-5.5	SOIL	Toluene	19		5.7	1.3	ug/Kg
R3873-07	B331.5-5.5	SOIL	Ethyl Benzene	1.4	J	5.7	1.1	ug/Kg
R3873-07	B331.5-5.5	SOIL	m/p-Xylenes	6.0		5.7	3.2	ug/Kg
R3873-07	B331.5-5.5	SOIL	o-Xylene	1.4	J	5.7	1.3	ug/Kg
			Total VOC's:	39.80				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	39.80				
Client ID:	B340.5-1.5							
R3873-08	B340.5-1.5	SOIL	Methylene Chloride	5.2	J	5.9	1.5	ug/Kg
R3873-08	B340.5-1.5	SOIL	Toluene	4.2	J	5.9	1.3	ug/Kg
			Total VOC's:	9.40				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	9.40				
Client ID:	B351-3							
R3873-09	B351-3	SOIL	Methylene Chloride	9.1		5.7	1.5	ug/Kg
R3873-09	B351-3	SOIL	Toluene	20		5.7	1.2	ug/Kg
R3873-09	B351-3	SOIL	o-Xylene	2.8	J	5.7	1.2	ug/Kg
			Total VOC's:	31.90				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	31.90				
Client ID:	B355-8							
R3873-12	B355-8	SOIL	Toluene	1.4	J	5.6	1.2	ug/Kg
			Total VOC's:	1.40				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	1.40				
Client ID:	B361-4							
R3873-13	B361-4	SOIL	Methylene Chloride	3.6	J	5.5	1.4	ug/Kg
R3873-13	B361-4	SOIL	Toluene	5.9		5.5	1.2	ug/Kg
R3873-13	B361-4	SOIL	m/p-Xylenes	3.6	J	5.5	3.1	ug/Kg
			Total VOC's:	13.10				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	13.10				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Test: VOCMS Group1

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
lient ID:	B371-4							
3873-14	B371-4	SOIL	Methylene Chloride	4.0	J	5.6	1.5	ug/Kg
R3873-14	B371-4	SOIL	Toluene	2.6	J	5.6	1.2	ug/Kg
			Total VOC's:	6.60				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	6.60				
lient ID:	B381-5							
R3873-15	B381-5	SOIL	Methylene Chloride	4.4	J	5.5	1.4	ug/Kg
3873-15	B381-5	SOIL	Toluene	5.8		5.5	1.2	ug/Kg
			Total VOC's:	10.20				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	10.20				
Client ID:	B388-9							
3873-16	B388-9	SOIL	Methylene Chloride	6.2		5.5	1.4	ug/Kg
3873-16	B388-9	SOIL	Toluene	8.9		5.5	1.2	ug/Kg
R3873-16	B388-9	SOIL	Ethyl Benzene	1.2	J	5.5	1.1	ug/Kg
3873-16	B388-9	SOIL	o-Xylene	2.7	J	5.5	1.2	ug/Kg
			Total VOC's:	19.00				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	19.00				
Client ID:	B401-4							
3873-17	B401-4	SOIL	Methylene Chloride	8.9		5.4	1.4	ug/Kg
3873-17	B401-4	SOIL	Toluene	4.9	J	5.4	1.2	ug/Kg
R3873-17	B401-4	SOIL	m/p-Xylenes	4.8	J	5.4	3.0	ug/Kg
3873-17	B401-4	SOIL	o-Xylene	2.0	J	5.4	1.2	ug/Kg
			Total VOC's:	20.60				
			Total TIC's:	0.00				
			Total VOC's and TIC's:	20.60				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Test: SVOC-TCL BNA

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B270-2							
R3873-01	B270-2	SOIL	Diethylphthalate	250	J	1900	190	ug/Kg
R3873-01	B270-2	SOIL	Phenanthrene	780	J	1900	190	ug/Kg
R3873-01	B270-2	SOIL	Fluoranthene	1400	J	1900	190	ug/Kg
R3873-01	B270-2	SOIL	Pyrene	1700	J	1900	190	ug/Kg
R3873-01	B270-2	SOIL	Benzo(a)anthracene	1000	J	1900	190	ug/Kg
R3873-01	B270-2	SOIL	Chrysene	870	J	1900	310	ug/Kg
R3873-01	B270-2	SOIL	Benzo(b)fluoranthene	980	J	1900	190	ug/Kg
R3873-01	B270-2	SOIL	Benzo(k)fluoranthene	520	J	1900	500	ug/Kg
R3873-01	B270-2	SOIL	Benzo(a)pyrene	900	J	1900	290	ug/Kg
R3873-01	B270-2	SOIL	Indeno(1,2,3-cd)pyrene	450	J	1900	310	ug/Kg
R3873-01	B270-2	SOIL	Benzo(g,h,i)perylene	450	J	1900	250	ug/Kg
		Total SVOC's:		9300.00				
		Total TIC's:		0.00				
		Total SVOC's and TIC's:		9300.00				
Client ID:	B280-2							
R3873-02	B280-2	SOIL	Phenanthrene	140	J	370	37	ug/Kg
R3873-02	B280-2	SOIL	Fluoranthene	220	J	370	37	ug/Kg
R3873-02	B280-2	SOIL	Pyrene	270	J	370	37	ug/Kg
R3873-02	B280-2	SOIL	Benzo(a)anthracene	160	J	370	37	ug/Kg
R3873-02	B280-2	SOIL	Chrysene	150	J	370	59	ug/Kg
R3873-02	B280-2	SOIL	Benzo(b)fluoranthene	140	J	370	37	ug/Kg
R3873-02	B280-2	SOIL	Benzo(a)pyrene	120	J	370	56	ug/Kg
R3873-02	B280-2	SOIL	Indeno(1,2,3-cd)pyrene	91	J	370	59	ug/Kg
R3873-02	B280-2	SOIL	Benzo(g,h,i)perylene	87	J	370	48	ug/Kg
		Total SVOC's:		1378.00				
		Total TIC's:		0.00				
		Total SVOC's and TIC's:		1378.00				
Client ID:	B291-3							
R3873-03	B291-3	SOIL	Diethylphthalate	510	J	3700	370	ug/Kg
		Total SVOC's:		510.00				
		Total TIC's:		0.00				
		Total SVOC's and TIC's:		510.00				
Client ID:	B301-5							
R3873-04	B301-5	SOIL	Diethylphthalate	520	J	3500	350	ug/Kg
		Total SVOC's:		520.00				
		Total TIC's:		0.00				
		Total SVOC's and TIC's:		520.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 **Order ID:** R3873

Client: TRC Environmental Corp., CT **Project ID:** EDC-SBMT

Test: SVOC-TCL BNA

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
ient ID:	**B311-4**							
873-05	B311-4	SOIL	Naphthalene	64	J	370	43	ug/Kg
R3873-05	B311-4	SOIL	Acenaphthene	150	J	370	43	ug/Kg
873-05	B311-4	SOIL	Dibenzofuran	130	J	370	37	ug/Kg
873-05	B311-4	SOIL	Fluorene	200	J	370	40	ug/Kg
R3873-05	B311-4	SOIL	Phenanthrene	2600		370	37	ug/Kg
873-05	B311-4	SOIL	Anthracene	450		370	48	ug/Kg
873-05	B311-4	SOIL	Carbazole	240	J	370	15	ug/Kg
R3873-05	B311-4	SOIL	Fluoranthene	2900		370	37	ug/Kg
873-05	B311-4	SOIL	Benzo(a)anthracene	1200		370	37	ug/Kg
R3873-05	B311-4	SOIL	Chrysene	1000		370	58	ug/Kg
3873-05	B311-4	SOIL	bis(2-Ethylhexyl)phthalate	180	J	370	37	ug/Kg
873-05	B311-4	SOIL	Benzo(b)fluoranthene	1100		370	37	ug/Kg
R3873-05	B311-4	SOIL	Benzo(k)fluoranthene	550		370	95	ug/Kg
873-05	B311-4	SOIL	Benzo(a)pyrene	960		370	55	ug/Kg
873-05	B311-4	SOIL	Indeno(1,2,3-cd)pyrene	620		370	58	ug/Kg
R3873-05	B311-4	SOIL	Dibenz(a,h)anthracene	170	J	370	55	ug/Kg
873-05	B311-4	SOIL	Benzo(g,h,i)perylene	630		370	48	ug/Kg
			Total SVOC's:	13144.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	13144.00				
Client ID:	**B311-4DL**							
873-05DL	B311-4DL	SOIL	Phenanthrene	1900	D	1800	180	ug/Kg
873-05DL	B311-4DL	SOIL	Anthracene	390	JD	1800	240	ug/Kg
R3873-05DL	B311-4DL	SOIL	Carbazole	200	JD	1800	75	ug/Kg
873-05DL	B311-4DL	SOIL	Fluoranthene	2200	D	1800	180	ug/Kg
873-05DL	B311-4DL	SOIL	Pyrene	2400	D	1800	180	ug/Kg
R3873-05DL	B311-4DL	SOIL	Benzo(a)anthracene	1100	JD	1800	180	ug/Kg
873-05DL	B311-4DL	SOIL	Chrysene	860	JD	1800	290	ug/Kg
3873-05DL	B311-4DL	SOIL	Benzo(b)fluoranthene	1000	JD	1800	180	ug/Kg
R3873-05DL	B311-4DL	SOIL	Benzo(a)pyrene	790	JD	1800	270	ug/Kg
873-05DL	B311-4DL	SOIL	Indeno(1,2,3-cd)pyrene	440	JD	1800	290	ug/Kg
R3873-05DL	B311-4DL	SOIL	Benzo(g,h,i)perylene	480	JD	1800	240	ug/Kg
			Total SVOC's:	11760.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	11760.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 **Order ID:** R3873

Client: TRC Environmental Corp., CT **Project ID:** EDC-SBMT

Test: SVOC-TCL BNA

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
ient ID:	B320-2							
873-06	B320-2	SOIL	Acenaphthylene	150	J	370	44	ug/Kg
R3873-06	B320-2	SOIL	Fluorene	55	J	370	41	ug/Kg
873-06	B320-2	SOIL	Phenanthrene	380		370	37	ug/Kg
873-06	B320-2	SOIL	Anthracene	400		370	48	ug/Kg
R3873-06	B320-2	SOIL	Carbazole	120	J	370	15	ug/Kg
873-06	B320-2	SOIL	Fluoranthene	1400		370	37	ug/Kg
R3873-06	B320-2	SOIL	Pyrene	1700		370	37	ug/Kg
R3873-06	B320-2	SOIL	Benzo(a)anthracene	830		370	37	ug/Kg
873-06	B320-2	SOIL	Chrysene	890		370	59	ug/Kg
R3873-06	B320-2	SOIL	bis(2-Ethylhexyl)phthalate	100	J	370	37	ug/Kg
3873-06	B320-2	SOIL	Benzo(b)fluoranthene	1100		370	37	ug/Kg
873-06	B320-2	SOIL	Benzo(k)fluoranthene	430		370	96	ug/Kg
R3873-06	B320-2	SOIL	Benzo(a)pyrene	630		370	56	ug/Kg
873-06	B320-2	SOIL	Indeno(1,2,3-cd)pyrene	390		370	59	ug/Kg
873-06	B320-2	SOIL	Dibenz(a,h)anthracene	120	J	370	56	ug/Kg
R3873-06	B320-2	SOIL	Benzo(g,h,i)perylene	330	J	370	48	ug/Kg
			Total SVOC's:	9025.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	9025.00				
ient ID:	B331.5-5.5							
R3873-07	B331.5-5.5	SOIL	Phenanthrene	130	J	370	37	ug/Kg
873-07	B331.5-5.5	SOIL	Fluoranthene	220	J	370	37	ug/Kg
873-07	B331.5-5.5	SOIL	Pyrene	340	J	370	37	ug/Kg
R3873-07	B331.5-5.5	SOIL	Benzo(a)anthracene	170	J	370	37	ug/Kg
873-07	B331.5-5.5	SOIL	Chrysene	150	J	370	60	ug/Kg
873-07	B331.5-5.5	SOIL	Benzo(b)fluoranthene	160	J	370	37	ug/Kg
R3873-07	B331.5-5.5	SOIL	Benzo(a)pyrene	100	J	370	56	ug/Kg
873-07	B331.5-5.5	SOIL	Indeno(1,2,3-cd)pyrene	97	J	370	60	ug/Kg
R3873-07	B331.5-5.5	SOIL	Benzo(g,h,i)perylene	120	J	370	49	ug/Kg
			Total SVOC's:	1487.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	1487.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 **Order ID:** R3873

Client: TRC Environmental Corp., CT **Project ID:** EDC-SBMT

Test: SVOC-TCL BNA

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
ient ID:	B340.5-1.5							
873-08	B340.5-1.5	SOIL	Phenanthrene	440		390	39	ug/Kg
R3873-08	B340.5-1.5	SOIL	Anthracene	91	J	390	50	ug/Kg
873-08	B340.5-1.5	SOIL	Fluoranthene	500		390	39	ug/Kg
873-08	B340.5-1.5	SOIL	Pyrene	470		390	39	ug/Kg
R3873-08	B340.5-1.5	SOIL	Benzo(a)anthracene	490		390	39	ug/Kg
873-08	B340.5-1.5	SOIL	Chrysene	470		390	62	ug/Kg
3873-08	B340.5-1.5	SOIL	Benzo(b)fluoranthene	290	J	390	39	ug/Kg
R3873-08	B340.5-1.5	SOIL	Benzo(k)fluoranthene	120	J	390	100	ug/Kg
873-08	B340.5-1.5	SOIL	Benzo(a)pyrene	290	J	390	58	ug/Kg
R3873-08	B340.5-1.5	SOIL	Indeno(1,2,3-cd)pyrene	150	J	390	62	ug/Kg
3873-08	B340.5-1.5	SOIL	Dibenz(a,h)anthracene	87	J	390	59	ug/Kg
873-08	B340.5-1.5	SOIL	Benzo(g,h,i)perylene	140	J	390	50	ug/Kg
			Total SVOC's:	3538.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	3538.00				
lient ID:	B351-3							
873-09	B351-3	SOIL	2-Methylnaphthalene	540		370	44	ug/Kg
R3873-09	B351-3	SOIL	Acenaphthene	290	J	370	44	ug/Kg
3873-09	B351-3	SOIL	Fluorene	320	J	370	41	ug/Kg
873-09	B351-3	SOIL	Phenanthrene	570		370	37	ug/Kg
R3873-09	B351-3	SOIL	Anthracene	240	J	370	48	ug/Kg
3873-09	B351-3	SOIL	Fluoranthene	340	J	370	37	ug/Kg
873-09	B351-3	SOIL	Pyrene	820		370	37	ug/Kg
R3873-09	B351-3	SOIL	Benzo(a)anthracene	230	J	370	37	ug/Kg
873-09	B351-3	SOIL	Chrysene	230	J	370	59	ug/Kg
3873-09	B351-3	SOIL	Benzo(b)fluoranthene	250	J	370	37	ug/Kg
R3873-09	B351-3	SOIL	Benzo(k)fluoranthene	130	J	370	97	ug/Kg
873-09	B351-3	SOIL	Benzo(a)pyrene	210	J	370	56	ug/Kg
3873-09	B351-3	SOIL	Indeno(1,2,3-cd)pyrene	120	J	370	59	ug/Kg
R3873-09	B351-3	SOIL	Benzo(g,h,i)perylene	120	J	370	48	ug/Kg
			Total SVOC's:	4410.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	4410.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 **Order ID:** R3873

Client: TRC Environmental Corp., CT **Project ID:** EDC-SBMT

Test: SVOC-TCL BNA

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
ient ID:	B355-8							
:873-12	B355-8	SOIL	Phenanthrene	280	J	360	36	ug/Kg
R3873-12	B355-8	SOIL	Anthracene	79	J	360	47	ug/Kg
873-12	B355-8	SOIL	Fluoranthene	740		360	36	ug/Kg
3873-12	B355-8	SOIL	Pyrene	810		360	36	ug/Kg
R3873-12	B355-8	SOIL	Benzo(a)anthracene	410		360	36	ug/Kg
3873-12	B355-8	SOIL	Chrysene	360	J	360	58	ug/Kg
R3873-12	B355-8	SOIL	Benzo(b)fluoranthene	390		360	36	ug/Kg
R3873-12	B355-8	SOIL	Benzo(k)fluoranthene	210	J	360	94	ug/Kg
3873-12	B355-8	SOIL	Benzo(a)pyrene	340	J	360	54	ug/Kg
R3873-12	B355-8	SOIL	Indeno(1,2,3-cd)pyrene	240	J	360	58	ug/Kg
R3873-12	B355-8	SOIL	Dibenz(a,h)anthracene	66	J	360	55	ug/Kg
3873-12	B355-8	SOIL	Benzo(g,h,i)perylene	240	J	360	47	ug/Kg
			Total SVOC's:	4165.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	4165.00				
lient ID:	B361-4							
3873-13	B361-4	SOIL	2-Methylnaphthalene	260	J	360	43	ug/Kg
R3873-13	B361-4	SOIL	Phenanthrene	140	J	360	36	ug/Kg
3873-13	B361-4	SOIL	Fluoranthene	75	J	360	36	ug/Kg
3873-13	B361-4	SOIL	Pyrene	150	J	360	36	ug/Kg
R3873-13	B361-4	SOIL	Benzo(a)anthracene	49	J	360	36	ug/Kg
3873-13	B361-4	SOIL	bis(2-Ethylhexyl)phthalate	320	J	360	36	ug/Kg
3873-13	B361-4	SOIL	Benzo(b)fluoranthene	67	J	360	36	ug/Kg
R3873-13	B361-4	SOIL	Benzo(g,h,i)perylene	68	J	360	47	ug/Kg
			Total SVOC's:	1129.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	1129.00				
ient ID:	B371-4							
R3873-14	B371-4	SOIL	Phenanthrene	75	J	370	37	ug/Kg
3873-14	B371-4	SOIL	Fluoranthene	160	J	370	37	ug/Kg
3873-14	B371-4	SOIL	Pyrene	160	J	370	37	ug/Kg
R3873-14	B371-4	SOIL	Benzo(a)anthracene	98	J	370	37	ug/Kg
3873-14	B371-4	SOIL	Chrysene	87	J	370	59	ug/Kg
R3873-14	B371-4	SOIL	Benzo(b)fluoranthene	91	J	370	37	ug/Kg
R3873-14	B371-4	SOIL	Benzo(a)pyrene	85	J	370	55	ug/Kg
3873-14	B371-4	SOIL	Benzo(g,h,i)perylene	67	J	370	48	ug/Kg
			Total SVOC's:	823.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	823.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 **Order ID:** R3873

Client: TRC Environmental Corp., CT **Project ID:** EDC-SBMT

Test: SVOC-TCL BNA

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B381-5							
3873-15	B381-5	SOIL	Acenaphthene	89	J	360	43	ug/Kg
R3873-15	B381-5	SOIL	Dibenzofuran	39	J	360	36	ug/Kg
3873-15	B381-5	SOIL	Fluorene	92	J	360	40	ug/Kg
3873-15	B381-5	SOIL	Phenanthrene	1200		360	36	ug/Kg
R3873-15	B381-5	SOIL	Anthracene	250	J	360	47	ug/Kg
3873-15	B381-5	SOIL	Carbazole	100	J	360	15	ug/Kg
R3873-15	B381-5	SOIL	Fluoranthene	1900		360	36	ug/Kg
R3873-15	B381-5	SOIL	Pyrene	1900		360	36	ug/Kg
3873-15	B381-5	SOIL	Benzo(a)anthracene	1000		360	36	ug/Kg
R3873-15	B381-5	SOIL	Chrysene	900		360	58	ug/Kg
R3873-15	B381-5	SOIL	Benzo(b)fluoranthene	890		360	36	ug/Kg
3873-15	B381-5	SOIL	Benzo(k)fluoranthene	380		360	94	ug/Kg
R3873-15	B381-5	SOIL	Benzo(a)pyrene	860		360	54	ug/Kg
3873-15	B381-5	SOIL	Indeno(1,2,3-cd)pyrene	490		360	58	ug/Kg
3873-15	B381-5	SOIL	Dibenz(a,h)anthracene	130	J	360	54	ug/Kg
R3873-15	B381-5	SOIL	Benzo(g,h,i)perylene	450		360	47	ug/Kg
			Total SVOC's:	10670.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	10670.00				
Client ID:	B388-9							
R3873-16	B388-9	SOIL	Naphthalene	550		360	43	ug/Kg
3873-16	B388-9	SOIL	Fluorene	1100		360	40	ug/Kg
3873-16	B388-9	SOIL	Phenanthrene	1400		360	36	ug/Kg
R3873-16	B388-9	SOIL	Anthracene	110	J	360	47	ug/Kg
3873-16	B388-9	SOIL	Fluoranthene	100	J	360	36	ug/Kg
3873-16	B388-9	SOIL	Pyrene	350	J	360	36	ug/Kg
R3873-16	B388-9	SOIL	Benzo(a)anthracene	84	J	360	36	ug/Kg
3873-16	B388-9	SOIL	Chrysene	90	J	360	58	ug/Kg
R3873-16	B388-9	SOIL	bis(2-Ethylhexyl)phthalate	78	J	360	36	ug/Kg
R3873-16	B388-9	SOIL	Benzo(b)fluoranthene	87	J	360	36	ug/Kg
3873-16	B388-9	SOIL	Benzo(a)pyrene	58	J	360	54	ug/Kg
			Total SVOC's:	4007.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	4007.00				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873 **Order ID:** R3873

Client: TRC Environmental Corp., CT **Project ID:** EDC-SBMT

Test: SVOC-TCL BNA

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
ient ID:	**B388-9DL**							
873-16DL	B388-9DL	SOIL	Naphthalene	460	JD	1800	210	ug/Kg
3873-16DL	B388-9DL	SOIL	2-Methylnaphthalene	3900	D	1800	210	ug/Kg
873-16DL	B388-9DL	SOIL	Fluorene	1200	JD	1800	200	ug/Kg
873-16DL	B388-9DL	SOIL	Phenanthrene	1300	JD	1800	180	ug/Kg
3873-16DL	B388-9DL	SOIL	Anthracene	240	JD	1800	240	ug/Kg
873-16DL	B388-9DL	SOIL	Pyrene	310	JD	1800	180	ug/Kg
			Total SVOC's:	7410.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	7410.00				
Client ID:	**B401-4**							
873-17	B401-4	SOIL	Naphthalene	89	J	360	42	ug/Kg
3873-17	B401-4	SOIL	2-Methylnaphthalene	110	J	360	42	ug/Kg
3873-17	B401-4	SOIL	Phenanthrene	80	J	360	36	ug/Kg
873-17	B401-4	SOIL	Fluoranthene	49	J	360	36	ug/Kg
3873-17	B401-4	SOIL	Pyrene	78	J	360	36	ug/Kg
			Total SVOC's:	406.00				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	406.00				
ient ID:	**FB**							
3873-18	FB	WATER	bis(2-Ethylhexyl)phthalate	2.5	J	10	1.0	ug/L
			Total SVOC's:	2.50				
			Total TIC's:	0.00				
			Total SVOC's and TIC's:	2.50				

Note: The asterisk "*" flag next to a parameter signifies a TIC parameter.

Chemtech

Hit Summary Report

SDG No.: R3873
Client: TRC Environmental Corp., CT
Order ID: R3873
Project ID: EDC-SBMT
Test: PCB

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B270-2							
R3873-01	B270-2	SOIL	AROCLOR 1260	14	JP	20	2.3	ug/Kg
			Total PCB's:	14.00				

Hit Summary Sheet
SW-846

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B270-2							
R3873-01	B270-2	SOIL	Aluminum	3720		23.6	1.7	mg/Kg
R3873-01	B270-2	SOIL	Antimony	0.88	J	7.1	0.24	mg/Kg
R3873-01	B270-2	SOIL	Arsenic	6.2		1.2	0.25	mg/Kg
R3873-01	B270-2	SOIL	Barium	123		23.6	1.5	mg/Kg
R3873-01	B270-2	SOIL	Beryllium	0.31	J	0.59	0.15	mg/Kg
R3873-01	B270-2	SOIL	Cadmium	0.23	J	0.59	0.14	mg/Kg
R3873-01	B270-2	SOIL	Calcium	17200		590	1.9	mg/Kg
R3873-01	B270-2	SOIL	Chromium	15.0		1.2	0.22	mg/Kg
R3873-01	B270-2	SOIL	Cobalt	4.4	J	5.9	0.28	mg/Kg
R3873-01	B270-2	SOIL	Copper	95.0		3.0	0.31	mg/Kg
R3873-01	B270-2	SOIL	Iron	7680		11.8	1.3	mg/Kg
R3873-01	B270-2	SOIL	Lead	1900		0.35	0.28	mg/Kg
R3873-01	B270-2	SOIL	Magnesium	2000		590	2.0	mg/Kg
R3873-01	B270-2	SOIL	Manganese	119		1.8	0.15	mg/Kg
R3873-01	B270-2	SOIL	Mercury	0.50		0.01	0.01	mg/Kg
R3873-01	B270-2	SOIL	Nickel	17.1		4.7	0.90	mg/Kg
R3873-01	B270-2	SOIL	Potassium	757		590	12.6	mg/Kg
R3873-01	B270-2	SOIL	Selenium	1.2		0.59	0.50	mg/Kg
R3873-01	B270-2	SOIL	Sodium	277	J	590	118	mg/Kg
R3873-01	B270-2	SOIL	Vanadium	11.8		5.9	0.27	mg/Kg
R3873-01	B270-2	SOIL	Zinc	139		2.4	0.76	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B280-2							
R3873-02	B280-2	SOIL	Aluminum	3400		22.6	1.6	mg/Kg
R3873-02	B280-2	SOIL	Antimony	0.57	J	6.8	0.23	mg/Kg
R3873-02	B280-2	SOIL	Arsenic	8.7		1.1	0.24	mg/Kg
R3873-02	B280-2	SOIL	Barium	52.8		22.6	1.4	mg/Kg
R3873-02	B280-2	SOIL	Beryllium	0.30	J	0.56	0.15	mg/Kg
R3873-02	B280-2	SOIL	Cadmium	0.19	J	0.56	0.14	mg/Kg
R3873-02	B280-2	SOIL	Calcium	9630		565	1.8	mg/Kg
R3873-02	B280-2	SOIL	Chromium	17.6		1.1	0.21	mg/Kg
R3873-02	B280-2	SOIL	Cobalt	14.7		5.6	0.27	mg/Kg
R3873-02	B280-2	SOIL	Copper	28.1		2.8	0.29	mg/Kg
R3873-02	B280-2	SOIL	Iron	9420		11.3	1.3	mg/Kg
R3873-02	B280-2	SOIL	Lead	65.7		0.34	0.27	mg/Kg
R3873-02	B280-2	SOIL	Magnesium	3310		565	1.9	mg/Kg
R3873-02	B280-2	SOIL	Manganese	145		1.7	0.15	mg/Kg
R3873-02	B280-2	SOIL	Mercury	0.11		0.01	0.01	mg/Kg
R3873-02	B280-2	SOIL	Nickel	14.8		4.5	0.86	mg/Kg
R3873-02	B280-2	SOIL	Potassium	537	J	565	12.1	mg/Kg
R3873-02	B280-2	SOIL	Selenium	0.75		0.56	0.47	mg/Kg
R3873-02	B280-2	SOIL	Silver	1.7		1.1	0.31	mg/Kg
R3873-02	B280-2	SOIL	Sodium	128	J	565	113	mg/Kg
R3873-02	B280-2	SOIL	Vanadium	15.4		5.6	0.26	mg/Kg
R3873-02	B280-2	SOIL	Zinc	109		2.3	0.72	mg/Kg
Client ID:	B291-3							
R3873-03	B291-3	SOIL	Aluminum	1580		22.3	1.6	mg/Kg
R3873-03	B291-3	SOIL	Antimony	0.40	J	6.7	0.22	mg/Kg
R3873-03	B291-3	SOIL	Arsenic	6.1		1.1	0.23	mg/Kg
R3873-03	B291-3	SOIL	Barium	20.8	J	22.3	1.4	mg/Kg
R3873-03	B291-3	SOIL	Calcium	43000		557	1.8	mg/Kg
R3873-03	B291-3	SOIL	Chromium	7.2		1.1	0.21	mg/Kg
R3873-03	B291-3	SOIL	Cobalt	5.2	J	5.6	0.27	mg/Kg
R3873-03	B291-3	SOIL	Copper	9.8		2.8	0.29	mg/Kg
R3873-03	B291-3	SOIL	Iron	4750		11.1	1.3	mg/Kg
R3873-03	B291-3	SOIL	Lead	22.1		0.33	0.27	mg/Kg
R3873-03	B291-3	SOIL	Magnesium	19700		557	1.9	mg/Kg
R3873-03	B291-3	SOIL	Manganese	107		1.7	0.14	mg/Kg
R3873-03	B291-3	SOIL	Mercury	0.02		0.01	0.01	mg/Kg
R3873-03	B291-3	SOIL	Nickel	7.8		4.5	0.85	mg/Kg
R3873-03	B291-3	SOIL	Potassium	423	J	557	11.9	mg/Kg
R3873-03	B291-3	SOIL	Silver	0.33	J	1.1	0.30	mg/Kg
R3873-03	B291-3	SOIL	Sodium	124	J	557	111	mg/Kg
R3873-03	B291-3	SOIL	Vanadium	8.7		5.6	0.26	mg/Kg
R3873-03	B291-3	SOIL	Zinc	38.5		2.2	0.71	mg/Kg

Hit Summary Sheet
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SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B301-5							
R3873-04	B301-5	SOIL	Aluminum	1150		21.3	1.5	mg/Kg
R3873-04	B301-5	SOIL	Antimony	0.33	J	6.4	0.21	mg/Kg
R3873-04	B301-5	SOIL	Arsenic	5.2		1.1	0.22	mg/Kg
R3873-04	B301-5	SOIL	Barium	17.4	J	21.3	1.4	mg/Kg
R3873-04	B301-5	SOIL	Beryllium	0.15	J	0.53	0.14	mg/Kg
R3873-04	B301-5	SOIL	Calcium	43500		532	1.7	mg/Kg
R3873-04	B301-5	SOIL	Chromium	7.8		1.1	0.20	mg/Kg
R3873-04	B301-5	SOIL	Cobalt	3.3	J	5.3	0.26	mg/Kg
R3873-04	B301-5	SOIL	Copper	16.4		2.7	0.28	mg/Kg
R3873-04	B301-5	SOIL	Iron	5280		10.6	1.2	mg/Kg
R3873-04	B301-5	SOIL	Lead	13.7		0.32	0.26	mg/Kg
R3873-04	B301-5	SOIL	Magnesium	24600		532	1.8	mg/Kg
R3873-04	B301-5	SOIL	Manganese	87.4		1.6	0.14	mg/Kg
R3873-04	B301-5	SOIL	Mercury	0.02		0.01	0.01	mg/Kg
R3873-04	B301-5	SOIL	Nickel	8.5		4.3	0.81	mg/Kg
R3873-04	B301-5	SOIL	Potassium	395	J	532	11.4	mg/Kg
R3873-04	B301-5	SOIL	Selenium	0.66		0.53	0.45	mg/Kg
R3873-04	B301-5	SOIL	Sodium	157	J	532	106	mg/Kg
R3873-04	B301-5	SOIL	Vanadium	8.7		5.3	0.24	mg/Kg
R3873-04	B301-5	SOIL	Zinc	34.4		2.1	0.68	mg/Kg
Client ID:	B311-4							
R3873-05	B311-4	SOIL	Aluminum	3800		22.1	1.6	mg/Kg
R3873-05	B311-4	SOIL	Antimony	1.5	J	6.6	0.22	mg/Kg
R3873-05	B311-4	SOIL	Arsenic	3.3		1.1	0.23	mg/Kg
R3873-05	B311-4	SOIL	Barium	52.3		22.1	1.4	mg/Kg
R3873-05	B311-4	SOIL	Beryllium	0.35	J	0.55	0.14	mg/Kg
R3873-05	B311-4	SOIL	Calcium	2380		553	1.8	mg/Kg
R3873-05	B311-4	SOIL	Chromium	10.7		1.1	0.21	mg/Kg
R3873-05	B311-4	SOIL	Cobalt	5.9		5.5	0.27	mg/Kg
R3873-05	B311-4	SOIL	Copper	239		2.8	0.29	mg/Kg
R3873-05	B311-4	SOIL	Iron	9440		11.1	1.3	mg/Kg
R3873-05	B311-4	SOIL	Lead	149		0.33	0.27	mg/Kg
R3873-05	B311-4	SOIL	Magnesium	2250		553	1.9	mg/Kg
R3873-05	B311-4	SOIL	Manganese	248		1.7	0.14	mg/Kg
R3873-05	B311-4	SOIL	Mercury	0.02		0.01	0.01	mg/Kg
R3873-05	B311-4	SOIL	Nickel	25.4		4.4	0.84	mg/Kg
R3873-05	B311-4	SOIL	Potassium	744		553	11.8	mg/Kg
R3873-05	B311-4	SOIL	Sodium	112	J	553	111	mg/Kg
R3873-05	B311-4	SOIL	Vanadium	21.1		5.5	0.25	mg/Kg
R3873-05	B311-4	SOIL	Zinc	232		2.2	0.71	mg/Kg

Hit Summary Sheet
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SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B320-2							
R3873-06	B320-2	SOIL	Aluminum	3630		22.8	1.6	mg/Kg
R3873-06	B320-2	SOIL	Antimony	10.3		6.8	0.23	mg/Kg
R3873-06	B320-2	SOIL	Arsenic	154		1.1	0.24	mg/Kg
R3873-06	B320-2	SOIL	Barium	83.5		22.8	1.4	mg/Kg
R3873-06	B320-2	SOIL	Beryllium	0.28	J	0.57	0.15	mg/Kg
R3873-06	B320-2	SOIL	Cadmium	0.75		0.57	0.14	mg/Kg
R3873-06	B320-2	SOIL	Calcium	2770		569	1.9	mg/Kg
R3873-06	B320-2	SOIL	Chromium	19.6		1.1	0.22	mg/Kg
R3873-06	B320-2	SOIL	Cobalt	6.8		5.7	0.27	mg/Kg
R3873-06	B320-2	SOIL	Copper	187		2.8	0.30	mg/Kg
R3873-06	B320-2	SOIL	Iron	40200		11.4	1.3	mg/Kg
R3873-06	B320-2	SOIL	Lead	253		0.34	0.27	mg/Kg
R3873-06	B320-2	SOIL	Magnesium	1550		569	2.0	mg/Kg
R3873-06	B320-2	SOIL	Manganese	293		1.7	0.15	mg/Kg
R3873-06	B320-2	SOIL	Mercury	0.28		0.01	0.01	mg/Kg
R3873-06	B320-2	SOIL	Nickel	21.1		4.6	0.86	mg/Kg
R3873-06	B320-2	SOIL	Potassium	286	J	569	12.2	mg/Kg
R3873-06	B320-2	SOIL	Selenium	1.6		0.57	0.48	mg/Kg
R3873-06	B320-2	SOIL	Silver	0.56	J	1.1	0.31	mg/Kg
R3873-06	B320-2	SOIL	Vanadium	39.0		5.7	0.26	mg/Kg
R3873-06	B320-2	SOIL	Zinc	200		2.3	0.73	mg/Kg

Hit Summary Sheet
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SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B331.5-5.5							
R3873-07	B331.5-5.5	SOIL	Aluminum	3950		23.0	1.6	mg/Kg
R3873-07	B331.5-5.5	SOIL	Antimony	1.1	J	6.9	0.23	mg/Kg
R3873-07	B331.5-5.5	SOIL	Arsenic	3.8		1.1	0.24	mg/Kg
R3873-07	B331.5-5.5	SOIL	Barium	34.6		23.0	1.5	mg/Kg
R3873-07	B331.5-5.5	SOIL	Beryllium	0.32	J	0.57	0.15	mg/Kg
R3873-07	B331.5-5.5	SOIL	Cadmium	0.45	J	0.57	0.14	mg/Kg
R3873-07	B331.5-5.5	SOIL	Calcium	1190		574	1.9	mg/Kg
R3873-07	B331.5-5.5	SOIL	Chromium	9.4		1.1	0.22	mg/Kg
R3873-07	B331.5-5.5	SOIL	Cobalt	7.3		5.7	0.28	mg/Kg
R3873-07	B331.5-5.5	SOIL	Copper	24.2		2.9	0.30	mg/Kg
R3873-07	B331.5-5.5	SOIL	Iron	8710		11.5	1.3	mg/Kg
R3873-07	B331.5-5.5	SOIL	Lead	39.5		0.34	0.28	mg/Kg
R3873-07	B331.5-5.5	SOIL	Magnesium	1420		574	2.0	mg/Kg
R3873-07	B331.5-5.5	SOIL	Manganese	83.9		1.7	0.15	mg/Kg
R3873-07	B331.5-5.5	SOIL	Mercury	0.55		0.01	0.01	mg/Kg
R3873-07	B331.5-5.5	SOIL	Nickel	12.3		4.6	0.87	mg/Kg
R3873-07	B331.5-5.5	SOIL	Potassium	544	J	574	12.3	mg/Kg
R3873-07	B331.5-5.5	SOIL	Silver	0.53	J	1.1	0.31	mg/Kg
R3873-07	B331.5-5.5	SOIL	Sodium	179	J	574	115	mg/Kg
R3873-07	B331.5-5.5	SOIL	Vanadium	14.0		5.7	0.26	mg/Kg
R3873-07	B331.5-5.5	SOIL	Zinc	206		2.3	0.73	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
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SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B340.5-1.5							
R3873-08	B340.5-1.5	SOIL	Aluminum	5460		23.6	1.7	mg/Kg
R3873-08	B340.5-1.5	SOIL	Antimony	0.83	J	7.1	0.24	mg/Kg
R3873-08	B340.5-1.5	SOIL	Arsenic	5.3		1.2	0.25	mg/Kg
R3873-08	B340.5-1.5	SOIL	Barium	74.5		23.6	1.5	mg/Kg
R3873-08	B340.5-1.5	SOIL	Beryllium	0.40	J	0.59	0.15	mg/Kg
R3873-08	B340.5-1.5	SOIL	Cadmium	0.25	J	0.59	0.14	mg/Kg
R3873-08	B340.5-1.5	SOIL	Calcium	11200		590	1.9	mg/Kg
R3873-08	B340.5-1.5	SOIL	Chromium	17.2		1.2	0.22	mg/Kg
R3873-08	B340.5-1.5	SOIL	Cobalt	21.5		5.9	0.28	mg/Kg
R3873-08	B340.5-1.5	SOIL	Copper	64.9		2.9	0.31	mg/Kg
R3873-08	B340.5-1.5	SOIL	Iron	13100		11.8	1.3	mg/Kg
R3873-08	B340.5-1.5	SOIL	Lead	146		0.35	0.28	mg/Kg
R3873-08	B340.5-1.5	SOIL	Magnesium	4350		590	2.0	mg/Kg
R3873-08	B340.5-1.5	SOIL	Manganese	191		1.8	0.15	mg/Kg
R3873-08	B340.5-1.5	SOIL	Mercury	0.31		0.01	0.01	mg/Kg
R3873-08	B340.5-1.5	SOIL	Nickel	15.8		4.7	0.90	mg/Kg
R3873-08	B340.5-1.5	SOIL	Potassium	1320		590	12.6	mg/Kg
R3873-08	B340.5-1.5	SOIL	Selenium	0.59		0.59	0.50	mg/Kg
R3873-08	B340.5-1.5	SOIL	Silver	1.8		1.2	0.32	mg/Kg
R3873-08	B340.5-1.5	SOIL	Sodium	297	J	590	118	mg/Kg
R3873-08	B340.5-1.5	SOIL	Vanadium	23.4		5.9	0.27	mg/Kg
R3873-08	B340.5-1.5	SOIL	Zinc	187		2.4	0.75	mg/Kg

Hit Summary Sheet
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SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B351-3							
R3873-09	B351-3	SOIL	Aluminum	3630		22.7	1.6	mg/Kg
R3873-09	B351-3	SOIL	Antimony	6.2	J	6.8	0.23	mg/Kg
R3873-09	B351-3	SOIL	Arsenic	16.8		1.1	0.24	mg/Kg
R3873-09	B351-3	SOIL	Barium	104		22.7	1.4	mg/Kg
R3873-09	B351-3	SOIL	Beryllium	0.32	J	0.57	0.15	mg/Kg
R3873-09	B351-3	SOIL	Calcium	4100		567	1.8	mg/Kg
R3873-09	B351-3	SOIL	Chromium	28.8		1.1	0.22	mg/Kg
R3873-09	B351-3	SOIL	Cobalt	19.4		5.7	0.27	mg/Kg
R3873-09	B351-3	SOIL	Copper	61.3		2.8	0.29	mg/Kg
R3873-09	B351-3	SOIL	Iron	44600		11.3	1.3	mg/Kg
R3873-09	B351-3	SOIL	Lead	264		0.34	0.27	mg/Kg
R3873-09	B351-3	SOIL	Magnesium	1820		567	2.0	mg/Kg
R3873-09	B351-3	SOIL	Manganese	207		1.7	0.15	mg/Kg
R3873-09	B351-3	SOIL	Mercury	0.52		0.01	0.01	mg/Kg
R3873-09	B351-3	SOIL	Nickel	24.7		4.5	0.86	mg/Kg
R3873-09	B351-3	SOIL	Potassium	808		567	12.1	mg/Kg
R3873-09	B351-3	SOIL	Selenium	1.3		0.57	0.48	mg/Kg
R3873-09	B351-3	SOIL	Silver	1.8		1.1	0.31	mg/Kg
R3873-09	B351-3	SOIL	Sodium	215	J	567	113	mg/Kg
R3873-09	B351-3	SOIL	Vanadium	20.8		5.7	0.26	mg/Kg
R3873-09	B351-3	SOIL	Zinc	270		2.3	0.73	mg/Kg
Client ID:	B355-8							
R3873-12	B355-8	SOIL	Aluminum	4120		22.3	1.6	mg/Kg
R3873-12	B355-8	SOIL	Arsenic	9.4		1.1	0.23	mg/Kg
R3873-12	B355-8	SOIL	Barium	111		22.3	1.4	mg/Kg
R3873-12	B355-8	SOIL	Beryllium	0.30	J	0.56	0.15	mg/Kg
R3873-12	B355-8	SOIL	Calcium	8160		559	1.8	mg/Kg
R3873-12	B355-8	SOIL	Chromium	9.3		1.1	0.21	mg/Kg
R3873-12	B355-8	SOIL	Cobalt	6.3		5.6	0.27	mg/Kg
R3873-12	B355-8	SOIL	Copper	26.7		2.8	0.29	mg/Kg
R3873-12	B355-8	SOIL	Iron	16000		11.2	1.3	mg/Kg
R3873-12	B355-8	SOIL	Lead	78.3		0.34	0.27	mg/Kg
R3873-12	B355-8	SOIL	Magnesium	2030		559	1.9	mg/Kg
R3873-12	B355-8	SOIL	Manganese	257		1.7	0.15	mg/Kg
R3873-12	B355-8	SOIL	Mercury	0.45		0.01	0.01	mg/Kg
R3873-12	B355-8	SOIL	Nickel	14.9		4.5	0.85	mg/Kg
R3873-12	B355-8	SOIL	Potassium	570		559	12.0	mg/Kg
R3873-12	B355-8	SOIL	Selenium	0.49	J	0.56	0.47	mg/Kg
R3873-12	B355-8	SOIL	Silver	0.32	J	1.1	0.30	mg/Kg
R3873-12	B355-8	SOIL	Sodium	151	J	559	112	mg/Kg
R3873-12	B355-8	SOIL	Vanadium	15.9		5.6	0.26	mg/Kg
R3873-12	B355-8	SOIL	Zinc	76.7		2.2	0.72	mg/Kg

Hit Summary Sheet
SW-846

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B361-4							
R3873-13	B361-4	SOIL	Aluminum	2960		22.0	1.6	mg/Kg
R3873-13	B361-4	SOIL	Antimony	0.56	J	6.6	0.22	mg/Kg
R3873-13	B361-4	SOIL	Arsenic	7.0		1.1	0.23	mg/Kg
R3873-13	B361-4	SOIL	Barium	41.4		22.0	1.4	mg/Kg
R3873-13	B361-4	SOIL	Beryllium	0.28	J	0.55	0.14	mg/Kg
R3873-13	B361-4	SOIL	Calcium	863		551	1.8	mg/Kg
R3873-13	B361-4	SOIL	Chromium	7.0		1.1	0.21	mg/Kg
R3873-13	B361-4	SOIL	Cobalt	4.5	J	5.5	0.26	mg/Kg
R3873-13	B361-4	SOIL	Copper	24.6		2.8	0.29	mg/Kg
R3873-13	B361-4	SOIL	Iron	7830		11.0	1.3	mg/Kg
R3873-13	B361-4	SOIL	Lead	50.1		0.33	0.26	mg/Kg
R3873-13	B361-4	SOIL	Magnesium	950		551	1.9	mg/Kg
R3873-13	B361-4	SOIL	Manganese	78.8		1.7	0.14	mg/Kg
R3873-13	B361-4	SOIL	Mercury	0.07		0.01	0.01	mg/Kg
R3873-13	B361-4	SOIL	Nickel	12.2		4.4	0.84	mg/Kg
R3873-13	B361-4	SOIL	Potassium	339	J	551	11.8	mg/Kg
R3873-13	B361-4	SOIL	Selenium	0.90		0.55	0.46	mg/Kg
R3873-13	B361-4	SOIL	Vanadium	14.2		5.5	0.25	mg/Kg
R3873-13	B361-4	SOIL	Zinc	53.3		2.2	0.70	mg/Kg
Client ID:	B371-4							
R3873-14	B371-4	SOIL	Aluminum	5620		22.4	1.6	mg/Kg
R3873-14	B371-4	SOIL	Antimony	0.34	J	6.7	0.22	mg/Kg
R3873-14	B371-4	SOIL	Arsenic	2.9		1.1	0.24	mg/Kg
R3873-14	B371-4	SOIL	Barium	61.3		22.4	1.4	mg/Kg
R3873-14	B371-4	SOIL	Beryllium	0.40	J	0.56	0.15	mg/Kg
R3873-14	B371-4	SOIL	Calcium	4330		561	1.8	mg/Kg
R3873-14	B371-4	SOIL	Chromium	12.0		1.1	0.21	mg/Kg
R3873-14	B371-4	SOIL	Cobalt	5.5	J	5.6	0.27	mg/Kg
R3873-14	B371-4	SOIL	Copper	18.6		2.8	0.29	mg/Kg
R3873-14	B371-4	SOIL	Iron	10400		11.2	1.3	mg/Kg
R3873-14	B371-4	SOIL	Lead	54.2		0.34	0.27	mg/Kg
R3873-14	B371-4	SOIL	Magnesium	2600		561	1.9	mg/Kg
R3873-14	B371-4	SOIL	Manganese	226		1.7	0.15	mg/Kg
R3873-14	B371-4	SOIL	Mercury	0.29		0.01	0.01	mg/Kg
R3873-14	B371-4	SOIL	Nickel	20.6		4.5	0.85	mg/Kg
R3873-14	B371-4	SOIL	Potassium	883		561	12.0	mg/Kg
R3873-14	B371-4	SOIL	Sodium	430	J	561	112	mg/Kg
R3873-14	B371-4	SOIL	Vanadium	18.2		5.6	0.26	mg/Kg
R3873-14	B371-4	SOIL	Zinc	46.8		2.2	0.72	mg/Kg

Hit Summary Sheet
SW-846

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B381-5							
R3873-15	B381-5	SOIL	Aluminum	3870		22.0	1.6	mg/Kg
R3873-15	B381-5	SOIL	Antimony	0.49	J	6.6	0.22	mg/Kg
R3873-15	B381-5	SOIL	Arsenic	8.4		1.1	0.23	mg/Kg
R3873-15	B381-5	SOIL	Barium	47.4		22.0	1.4	mg/Kg
R3873-15	B381-5	SOIL	Beryllium	0.32	J	0.55	0.14	mg/Kg
R3873-15	B381-5	SOIL	Calcium	3320		549	1.8	mg/Kg
R3873-15	B381-5	SOIL	Chromium	9.5		1.1	0.21	mg/Kg
R3873-15	B381-5	SOIL	Cobalt	5.4	J	5.5	0.26	mg/Kg
R3873-15	B381-5	SOIL	Copper	27.9		2.7	0.29	mg/Kg
R3873-15	B381-5	SOIL	Iron	11200		11.0	1.3	mg/Kg
R3873-15	B381-5	SOIL	Lead	94.9		0.33	0.26	mg/Kg
R3873-15	B381-5	SOIL	Magnesium	1770		549	1.9	mg/Kg
R3873-15	B381-5	SOIL	Manganese	215		1.6	0.14	mg/Kg
R3873-15	B381-5	SOIL	Mercury	0.18		0.01	0.01	mg/Kg
R3873-15	B381-5	SOIL	Nickel	13.5		4.4	0.84	mg/Kg
R3873-15	B381-5	SOIL	Potassium	630		549	11.8	mg/Kg
R3873-15	B381-5	SOIL	Sodium	327	J	549	110	mg/Kg
R3873-15	B381-5	SOIL	Vanadium	16.6		5.5	0.25	mg/Kg
R3873-15	B381-5	SOIL	Zinc	83.3		2.2	0.70	mg/Kg
Client ID:	B388-9							
R3873-16	B388-9	SOIL	Aluminum	3190		22.1	1.6	mg/Kg
R3873-16	B388-9	SOIL	Antimony	1.6	J	6.6	0.22	mg/Kg
R3873-16	B388-9	SOIL	Arsenic	3.2		1.1	0.23	mg/Kg
R3873-16	B388-9	SOIL	Barium	42.3		22.1	1.4	mg/Kg
R3873-16	B388-9	SOIL	Beryllium	0.22	J	0.55	0.14	mg/Kg
R3873-16	B388-9	SOIL	Calcium	1890		551	1.8	mg/Kg
R3873-16	B388-9	SOIL	Chromium	8.3		1.1	0.21	mg/Kg
R3873-16	B388-9	SOIL	Cobalt	4.4	J	5.5	0.26	mg/Kg
R3873-16	B388-9	SOIL	Copper	57.3		2.8	0.29	mg/Kg
R3873-16	B388-9	SOIL	Iron	9960		11.0	1.3	mg/Kg
R3873-16	B388-9	SOIL	Lead	148		0.33	0.26	mg/Kg
R3873-16	B388-9	SOIL	Magnesium	1600		551	1.9	mg/Kg
R3873-16	B388-9	SOIL	Manganese	77.9		1.7	0.14	mg/Kg
R3873-16	B388-9	SOIL	Mercury	0.27		0.01	0.01	mg/Kg
R3873-16	B388-9	SOIL	Nickel	14.2		4.4	0.84	mg/Kg
R3873-16	B388-9	SOIL	Potassium	721		551	11.8	mg/Kg
R3873-16	B388-9	SOIL	Selenium	0.89		0.55	0.46	mg/Kg
R3873-16	B388-9	SOIL	Sodium	329	J	551	110	mg/Kg
R3873-16	B388-9	SOIL	Vanadium	14.2		5.5	0.25	mg/Kg
R3873-16	B388-9	SOIL	Zinc	78.5		2.2	0.71	mg/Kg

Chemtech Consulting Group

Hit Summary Sheet
SW-846

SDG No.: R3873 Order ID: R3873

Client: TRC Environmental Corp., CT Project ID: EDC-SBMT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	RDL	MDL	Units
Client ID:	B401-4							
R3873-17	B401-4	SOIL	Aluminum	2690		21.6	1.5	mg/Kg
R3873-17	B401-4	SOIL	Antimony	0.74	J	6.5	0.22	mg/Kg
R3873-17	B401-4	SOIL	Arsenic	6.4		1.1	0.23	mg/Kg
R3873-17	B401-4	SOIL	Barium	44.3		21.6	1.4	mg/Kg
R3873-17	B401-4	SOIL	Beryllium	0.26	J	0.54	0.14	mg/Kg
R3873-17	B401-4	SOIL	Calcium	896		541	1.8	mg/Kg
R3873-17	B401-4	SOIL	Chromium	6.4		1.1	0.21	mg/Kg
R3873-17	B401-4	SOIL	Cobalt	4.3	J	5.4	0.26	mg/Kg
R3873-17	B401-4	SOIL	Copper	24.0		2.7	0.28	mg/Kg
R3873-17	B401-4	SOIL	Iron	6530		10.8	1.2	mg/Kg
R3873-17	B401-4	SOIL	Lead	53.2		0.32	0.26	mg/Kg
R3873-17	B401-4	SOIL	Magnesium	887		541	1.9	mg/Kg
R3873-17	B401-4	SOIL	Manganese	67.7		1.6	0.14	mg/Kg
R3873-17	B401-4	SOIL	Mercury	0.10		0.01	0.01	mg/Kg
R3873-17	B401-4	SOIL	Nickel	10.6		4.3	0.82	mg/Kg
R3873-17	B401-4	SOIL	Potassium	384	J	541	11.6	mg/Kg
R3873-17	B401-4	SOIL	Selenium	0.93		0.54	0.45	mg/Kg
R3873-17	B401-4	SOIL	Vanadium	12.9		5.4	0.25	mg/Kg
R3873-17	B401-4	SOIL	Zinc	47.4		2.2	0.69	mg/Kg
Client ID:	FB							
R3873-18	FB	WATER	Antimony	2.4	J	60.0	2.0	ug/L