REPORT

Phase I
Focused Remedial Investigation

ITT Sealectro
Mamaroneck, NY

August 1992

O'BRIEN & GERE
ENGINEERS, INC.

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PHASE I FOCUSED REMEDIAL INVESTIGATION

ITT SEALECTRO

MAMARONECK, NEW YORK

AUGUST 1992

O'BRIEN & GERE ENGINEERS, INC.
5000 BRITTONFIELD PARKWAY
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TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

TABLE OF CONTENTS
(Continued)

FIGURES (Continued)

APPENDICES

SECTION 1 - INTRODUCTION

1.01 Introduction

The ITT Sealectro site is located at 139 Hoyt Street in the Village of Mamaroneck, New York. A site location map is presented as Figure 1. The site has been used as a electronics parts manufacturing and assembly facility since approximately 1960. It is believed that the previous tenant at the building manufactured jewelry.

In May 1991, underground storage tanks (USTs) were excavated from the front of the building. There was evidence that some of these tanks had leaked and impacted the site soils and ground water. Based on these findings, ITT Sealectro elected to voluntarily complete a Remedial Investigation (RI) to assess the physical and chemical characteristics of the site and the nature and extent of contamination on-site. This Phase I Remedial Investigation Report presents the investigatory work completed on-site and the results of that work.

The scope of work for the Focused RI is detailed in the Focused RI Work Plan dated September 1991 which is presented in Appendix A1. A Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP) were completed in January 1992 prior to initiating the Focused RI and are presented as Appendices A2 and A3, respectively. Due to the large volume of information contained in Appendices A1, A2, and A3, they are presented under separate cover. The majority of the tasks outlined in the Work Plan were completed in January and February 1992.

ITT Sealectro has completed several Interim Remedial Measures (IRMs) at the site to reduce risk to the public and/or the environment. These IRMs included the removal of USTs and affected soil, and operation of *in situ* soil vapor extraction and ground water and product recovery and treatment systems. These IRMs are discussed in detail in the IRM Report prepared by O'Brien & Gere Engineers, Inc. which will be submitted to the NYSDEC after this Phase I Focused RI Report.

1.02 Report Organization

This report is divided into five sections and includes tables, figures, and appendices. A brief overview of these sections follows:

Section 1 provides information on the site setting, site history, and previous studies conducted. In addition, this section includes a description of the Focused RI Report.

Section 2 presents a detailed description of the data collection efforts completed during the Focused RI. Field techniques used to collect the data, including a summary of the methods used to complete the test borings and ground water monitoring wells, are discussed. Additionally, specific sampling techniques, chain-of-custody procedures and laboratory analyses are described.

Section 3 provides a discussion of the regional and site characteristics including the regional and site geology and hydrogeology.

Section 4 presents the results of the chemical analyses completed during the Focused RI. The chemistry of the soil, surface water/sediments and ground water as it relates to site waste residuals is also discussed.

Section 5 presents the conclusions of the Phase I Report.

The report is structured to reflect the format used in Guidance on Remedial Investigations under CERCLA (US EPA, 1988) and the NYSDEC guidelines for the development of Focused RI Work Plans.

Many of the terms discussed in this Phase I Focused RI Report have common abbreviations. These abbreviations, which have been used throughout this report, are as follows:

VOCs - Volatile Organic Compounds

1,1-DCE - 1,1-Dichloroethene

1,1-DCA - 1,1-Dichloroethane

1,2-DCE - 1,2-Dichloroethene (total)

TCA - 1,1,1-Trichloroethane

TCE - Trichlorethene

VC - Vinyl Chloride

PCE - Tetrachloroethene

VC - Vinyl Chloride

CM - Chloromethane

DBCM - Dibromochloromethane

TPH - Total Petroleum Hydrocarbons

MC - Methylene Chloride

1.03 Site Setting

The ITT Sealectro site is located in an industrialized area of Mamaroneck. Industries in the immediate vicinity of the site include the Blood Brothers Auto Wrecking Yard which is located to the north across the Sheldrake River; Marvel Industries, Inc., a plastics fabricator located to the west; and a photographic film processing facility to the east. Hoyt Street and an Amtrak Train line border the site to the south.

The 0.92 acre site is relatively flat and is adjacent to the Sheldrake River. One large building exists on the lot and nearly the entire remaining area consists of paved

parking areas. The Sheldrake River, a tributary of the Mamaroneck River, drains into the Long Island Sound within one mile of the site (Figure 1). Where it flows past the Sealectro facility, the Sheldrake River is about 1 foot deep and 15 feet wide. The river is channeled by stone retaining walls about 8 feet high. Site inspections documented that the river in this area contains debris typically consisting of automobile parts, glass and assorted household refuse.

1.04 Site Background and History

The Sealectro Corporation operated an electronics parts manufacturing and assembly facility at the 139 Hoyt Street location since approximately 1960. It is believed that the previous tenant at the building manufactured jewelry. In March 1986, Sealectro sold the building and land to 139 Hoyt Street Associates, who in turn leased the same property back to Sealectro. In November 1986, BICC Group (a holding firm/manufacturing conglomerate) acquired Sealectro. ITT Corporation purchased Sealectro from BICC Group in August 1988. The resulting company was ITT Sealectro, an ITT Electronic Components, Inc. Company (now known as ITT Components, Inc.). The 139 Hoyt Street property is presently owned by 139 Hoyt Street Associates but is managed through Northbrook Management Corporation of White Plains, New York. ITT Sealectro ceased operations at the Mamaroneck facility in November 1990. In July 1991, foreclosure action against 139 Hoyt Street Associates was reportedly initiated by National Westminster Bank in New York, New York and is currently pending.

The NYSDEC was initially informed about the site in a letter dated January 15, 1991 where ITT Sealectro registered several USTs and notified the agency of the

intent to remove the USTs. During the UST removal (May 16, 1991), it was evident that the USTs had leaked, and the NYSDEC was immediately notified by ITT Sealectro (Spill # 9101862). A Corrective Action Plan dated August 28, 1991 was then submitted to the NYSDEC. As part of the Corrective Action Plan, quarterly sampling of existing wells MW-2 and MW-3 (July 1991 and October 1991) and the preparation of a Focused RI Work Plan was initiated. The Focused RI Work Plan was submitted to the NYSDEC on September 16, 1991, while the July quarterly sampling data was sent on October 15, 1991. On November 20, 1991, a site tour of the facility was attended by the NYSDEC.

As previously mentioned, the scope of work for the RI is detailed in the Focused RI Work Plan dated September 1991 which was submitted to the NYSDEC in September 1991 is presented in Appendix A1. A Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP) were completed in January 1992 prior to initiating the Focused RI and are presented as Appendices A2 and A3, respectively. Due to the large volume of information contained in Appendices A1, A2, and A3, they are presented under separate cover. The majority of the tasks outlined in the Work Plan were completed in January and February 1992.

In March 1992, the facility was classified as an Inactive Hazardous Waste Site (Site #360027) by the New York State Department of Environmental Conservation (NYSDEC). Presently, an Administrative Order of Consent is being negotiated with the NYSDEC. Based upon consent order negotiations with the NYSDEC, the scope of work presented in the Work Plan was modified to include a Phase I RI Report and a Phase II RI Report. This document is the Phase I RI Report which presents

a hydrogeologic evaluation of the site. The Phase II RI will include a risk assessment and will be completed following NYSDEC review of the Phase I RI Report.

Based on information collected at the site, four areas of environmental concern were investigated as part of this Focused RI. These four areas are identified on Figure 2. These areas include:

1) Drum Storage Pad Area;

2) Underground Storage Tank (UST) Area;

3) Wastewater Treatment Area, and

4) Fuel Oil Underground Storage Tank Area.

The majority of the historical information about these four areas presented below was obtained from conversations with Mr. Joseph Corvo, who worked at the facility as a supervisor from approximately 1960 to 1975.

Several operations were reportedly performed at the facility which included screw machine manufacturing, electroplating, plating, and assembly. The screw machine operation was located in the southwestern portion of the building and was discontinued in January 1975. The electroplating department, which was located in the northeastern corner of the building, existed until 1984. Reportedly, 25 gallons per week of benzene for degreasing operations were used at the facility from about 1960 to 1963. Benzene was apparently stored in one of the eight tanks in the UST area (see Figure 2). TCE was used as a degreaser from 1963 until 1968, at which time TCE was replaced with TCA. The TCE and TCA were stored in 55-gallon drums outside on the drum storage pad (see Figure 2) and buckets were filled on the pad and brought inside for use. Spent solvents were placed in 55-gallon drums which

were stored at the drum storage pad to await disposal. In addition, lubricating and cutting oils were stored on the drum storage pad after 1973.

Reportedly, benzene (until 1963), and virgin 15-20 weight oil, 25-30 weight oil, and 90 weight oil were stored separately in USTs while spent oils were stored by two interconnected USTs. About 1973, Sealectro began noticing water in the virgin lubricating and cutting oils from the USTs and began purchasing oil in drums which were stored on the drum storage pad. Based upon information from the IRM, it appears that waste and virgin solvent were stored in the UST area.

Three wastewater treatment tanks were installed about 1970 and are located on the north eastern portion of the property as indicated on Figure 2. Reportedly, one tank was used for treating cyanide waste while the two remaining tanks were used to treat general wastewater from the plating operations. The tanks were reportedly coated on the inside with epoxy. In 1983 or 1984 the tanks were emptied, thoroughly cleaned and filled with sand. The tanks remain in-place today.

A 2,500 gallon No. 2 fuel oil UST was located on the southwestern portion of the site located adjacent to Hoyt Street. In the mid to late 1970's, the fuel oil tank reportedly leaked and was reportedly replaced with a new 2,500 gallon fuel tank. Test borings installed around the fuel oil UST as part of the Phase I Focused RI indicated that the tank had leaked. The NYSDEC was notified of the release (Spill # 9101862) and the tank was subsequently replaced.

Aerial photos of the area for the years 1960, 1968 (Lockwood, Kessler and Bartlett, photo (0009 - 5.083) and (NY9-1483 - 439), and 1979 (AeroGraphics, 16-1811) were obtained. In general, these photographs revealed plant expansions. In 1960, the building was rectangular, and the southwest portion of the building was not

paved nor was it being used as a parking lot. The back portion of the site, bordering the Sheldrake River, appears to have been used for parking. By 1968, additions were constructed on the back and to the southwest side. The southwest lot was now paved and being utilized as a parking lot. The 1979 aerial photos reveal that the wastewater treatment building and the drum storage pad had been constructed as indicated on Figure 2.

1.05 Previous Studies

A total of four previous studies have been conducted at the Mamaroneck facility. The first study was a site assessment completed by O'Brien & Gere Engineers, Inc. (O'Brien & Gere) as part of the property transfer from Sealectro to 139 Hoyt Street Associates. The second study was a soil and ground water evaluation conducted by TRC Environmental Consultants (TRC). This study was conducted for ITT Corporation in association with the purchase of Sealectro. The third study was a sampling program implemented in August 1989 by O'Brien & Gere for ITT Sealectro. The purpose of this study was to delineate soil contamination at the former drummed solvent storage area and to document existing groundwater quality conditions. The existence of the UST area was first recognized in 1990 and therefore was not investigated during the three previous investigations. The fourth study was an Environmental Investigation prepared by Leggette, Brashears & Graham, Inc. in May 1991 for BICC Group to verify the existence of USTs and the possible presence of organic vapors in the subsurface soil.

1.05.01 Site Assessment

The objective of the January 1986 Site Assessment completed by O'Brien & Gere Engineers, Inc. was to determine the possible existence and nature of contaminants associated with the electroplating operation which may have been released to the environment through mishandling or spillage. Sealectro identified four areas of potential concern which were sampled and included the following:

1. Three 2500-Gallon Underground Wastewater Storage Tanks;
2. Wastewater Treatment Area;
3. Drum Storage Pad Area; and
4. Sheldrake River.

The assessment revealed low levels of copper (18 ppm to 30 ppm), and nickel (20 ppm to 33 ppm) around the former underground wastewater storage tanks. Slightly higher levels of silver (2 ppm to 51 ppm), copper (4 ppm to 510 ppm) and nickel (14 ppm to 113 ppm) were detected around the former wastewater treatment building. TCA (0.86 ppm to 160 ppm) was found in the immediate vicinity of the former drum storage pad.

TCA (12 ppb to 53 ppb) was detected at depths below the ground water table around the periphery of the 139 Hoyt Street facility. Copper (47 ppm to 740 ppm), nickel (12 ppm to 30 ppm) and TCA (0.01 ppm to 0.018 ppm) were detected in the river sediment. A more detailed summary and specific analytical data are presented in Appendix A1.

1.05.02 Environmental Assessment

The second study, which was completed by TRC in conjunction with ITT's purchase of Sealectro, focused on the Drum Storage Pad Area, Wastewater Treatment Area, and the Sheldrake River. A ground water monitoring well (MW-2) was installed near the former drum storage pad. Sampling results indicated 1,1-DCA (123 ppb); trans-1,2-DCE (74 ppb); TCA (94 ppb); TCE (4 ppb) and arsenic (10 ppb).

A second ground water monitoring well (MW-3) was installed at the former wastewater treatment area. VOCs detected in the ground water included DBCM (9 ppb), 1,1-DCA (154 ppb); 1,2-DCA (6 ppb); 1,1,-DCE (343 ppb); trans- 1,2-DCE (65 ppb);TCA (129 ppb) and TCE (21 ppb).

Subsurface soil samples revealed levels of copper (296.5 ppm to 465.3 ppm), nickel (26.1 ppm to 46.7 ppm) and silver (0.19 ppm to 0.51 ppm). Copper (12.1 ppm to 43 ppm), nickel (5.1 ppm to 15.5 ppm) and silver (0.03 ppm to 0.12 ppm) were detected in the surface soil samples (0 to 7 inches). Copper (56.1 ppm to 296.4 ppm) and silver (4.57 ppm to 7.03 ppm) were detected in river sediment.

It is important to clarify that TRC installed two wells (MW-2 and MW-3) and did not mention MW-1 or why they labelled their first well MW-2. Laboratory data sheets indicate that soils samples were collected from MAM-MW-1 and MAM-MW-1a yet the report does not discuss these samples. Efforts to contact TRC about MW-1 were inconclusive. A more detailed summary and specific analytical data are presented in Appendix A1.

1.05.03 Sampling Program

The third study, which was conducted by O'Brien & Gere Engineers, Inc. for ITT Sealectro and focused on the former Drum Storage Pad Area. Soil boring and shallow soil samples showed TCA (18 ppb to 16,000 ppb), TCE (19 ppb to 5,900 ppb), PCE (3,400 ppb), toluene (16 ppb to 3,100 ppb) and xylene (55 ppb to 15,000 ppb). Each sample collected at the water table interface (with the exception of one) revealed detectable levels of VOCs. A comparison of the analytical data for each boring indicated a possible source of toluene and xylene upgradient of the drum storage area.

The existing ground water monitoring well (MW-2) near the drum storage pad was re-sampled and VC (200 ppb), CM (18 ppb), 1,1-DCA (63 ppb), trans-1,2-DCE (56 ppb), TCA (16 ppb), TCE (3 ppb), and benzene (29 ppb) were detected. A more detailed summary and specific analytical data are presented in Appendix A1.

1.05.04 Environmental Investigation

The fourth study was completed by Leggette, Brashears & Graham, retained by Pilko & Associates for BICC, and is documented in a draft Environmental Investigation Report dated March 1991. Surface geophysics were completed to identify magnetic anomalies and a soil vapor survey was completed to assess if organic vapors were present in the subsurface soil. The geophysical survey was completed using a Geonics EM-31 in the inphase mode. The survey tentatively identified the location of the former wastewater tanks, fuel oil tanks, and USTs in the southwest corner of the building. To

provide further resolution in the UST area, a magnetic cable indicator survey was completed. This survey revealed seven buried metallic objects.

Forty-six soil vapor samples were collected and analyzed for VOCs including TCA, PCE, TCE, benzene, ethylbenzene, and toluene. No ethylbenzene or xylenes were detected. Total VOCs in excess of 10,000 ppm were identified in the UST area. Concentrations of VOCs decreased rapidly east and south of these tanks. Low levels of VOCs (less than 1 ppm) were observed in samples collected from the eastern and western parking lots.

SECTION 2 - STUDY AREA INVESTIGATION

This section presents a detailed description of the data collection efforts completed during the Focused RI. Field techniques used to collect the data, including a summary of the methods used to complete the test borings and ground water monitoring wells, are discussed. Additionally, specific sampling techniques, chain-of-custody procedures and laboratory analyses are described.

2.01 Soil Sampling and Analysis Plan

Twelve soil borings (B-11 through B-24) were installed from January 21, 1992 through February 10, 1992. The goal of the soil sampling and analysis plan was to define the nature and extent of contamination, if any, in these four areas of environmental concern:

1) Drum Storage Pad Area;

2) Wastewater Treatment Area;

3) Underground Storage Tank (UST) Area; and

4) Fuel Oil Underground Storage Tank Area.

In the Drum Storage Pad Area and the Wastewater Treatment Area, soil sampling had previously documented the soil quality. In these areas, the goal of the soil sampling was to verify the previous results and document the extent of contamination, if any.

Soil borings were installed within the center of the Drum Storage Pad Area (B-11) and the Wastewater Treatment Area (B-14) to verify previous analytical data. Soil borings were also installed outside the Drum Storage Pad Area (B-12 and B-13)

and the Wastewater Treatment Area (B-15 and B-16) to evaluate the horizontal extent of contamination. One soil boring and subsequent temporary dewatering well were installed at the UST Area (MW-5) to evaluate the vertical extent of affected soils. Four additional borings (B-18, B-19, B-20, and B-21) were installed around the perimeter of the UST area to evaluate the horizontal extent of any affected soils. Additionally, three test borings (B-22 (MW-8), B-23, and B-24) were installed in the vicinity of the Former Fuel Oil UST Area where a the Work Plan indicated two borings. Figure 2 illustrates the boring locations.

In each area of concern, the borings were completed to the water table or the vertical extent of visual contamination where possible. Continuous soil samples were collected in 2-foot increments from immediately beneath the ground surface using hollow stem auger drilling methods and ASTM D1586-84 split-barrel sampling methods. Samples were visually described and logged in detail by the supervising O'Brien & Gere geologist. Specific soil classifications are presented on the boring logs in Appendix B.

Each collected sample was placed into an eight-ounce glass jar and four-ounce glass jar. Due to the limited amount of soil recovered from some split spoons, it was necessary to composite the samples from several split spoons. The eight-ounce jar was capped with tin foil and allowed to reach ambient temperature. The headspace of each eight-ounce jar was then screened with a photoionization detector (PID). The PID was calibrated each day and the calibration forms are presented in Appendix C. The samples selected for laboratory analyses were based on the PID reading, visual examination and depth. Each laboratory sample (eight-ounce jar and four-ounce jar) was placed in a cooler equipped for transport to OBG Laboratories, Inc. for analysis.

Samples not submitted for laboratory analyses were archived. Chain-of-custody documents were initiated at the time of sample collection and maintained throughout transportation to the laboratory. These forms are presented as Appendix D.

One sample from each area of concern, with the exception of the Fuel Oil UST area (B-22, B-23, B-24), was collected for analysis of the full NYS TCL using Superfund Protocols 8240 (volatiles) 6000/7000 (inorganic), 418.1 (TPH), 8080 (PCB/pesticides) and 8270 (semivolatiles). The samples selected were representative of "worst case" based on PID readings and visual examination. The objective of these analyses was to document the nature of contamination at the site. These analysis document that only VOCs and inorganic parameters are site indicator parameters. Appropriate quality control samples including field duplicates, matrix spikes and field blanks were collected as specified in the QAPP. Data are summarized on Tables 3, 4, 5 and 6. The data validation is presented in Appendix E while the laboratory data are presented under separate cover.

Up to two soil samples from each boring were selected for laboratory analysis for site indicator parameters. The site indicator parameters were selected based on the results of previous site investigations and New York State Target Compound List analyses from the areas of concern. The site indicator parameters analyses consisted of NYSTCL inorganics according to NYSDEC - Analytical Services Protocol (ASP), NYSTCL - VOCs using NYSDEC ASP gas chromatography methodology). TPH was analyzed using USEPA Method 418.1. Soil samples from B-22 and B-23 (fuel oil UST) were submitted for TPH analyses only. The soil organic data summarized in Table 1 and Figure 3 while the inorganic data are summarized on Table 2. The

analytical results were validated, and are presented in Appendix E while the laboratory data sheets are presented under separate cover.

The specific samples which were collected for analyses were:

Location	Depth (ft)
B-11	6-8 ft; 10-12 ft
B-12	6-8 ft;*8-10 ft; 10-14 ft
B-13	4-8 ft; 10-12 ft
B-14	6-8 ft; 16-18 ft
B-15	0.5-2 ft;*2-6 ft; 6-8 ft
B-16	2-4 ft; 10-12 ft
B-17	0-6 ft; 6-8 ft; *8-12 ft
B-18	6-8 ft; 12-14 ft
B-19	8-10 ft; 18-20 ft
B-20	0.5-13 ft
B-21	6-8 ft; 10-12 ft
B-22 (MW-8)	4-6 ft; 12-14 ft
B-23	6-10 ft
B-24	no samples collected.

* NYSDEC TCL Superfund Analyses

Split-spoon samplers were decontaminated between samples using an eight-step decontamination process as follows:

1. Alconox and tap water wash
2. Tap water rinse
3. Distilled water rinse
4. 10% nitric acid rinse
5. Distilled water rinse
6. Acetone rinse
7. Air dry
8. Distilled water rinse

Other drilling equipment was decontaminated between boring locations using a portable steam cleaner. Decontamination water was allowed to percolate into the ground at the designated decontamination location. Upon completion of each boring, the boring was then backfilled with a tremied cement/bentonite grout.

2.02 Ground Water Sampling and Analysis Plan

To further evaluate the site ground water, seven additional wells were installed at the site. Three deep ground water monitoring wells were installed atop bedrock (MW-2d, MW-3d and MW-4d) while two shallow ground water monitoring wells (MW-4 and MW-8) were installed near or across the ground water table. As part of the IRM, a temporary dewatering well (Well-5) and a product recovery well (RW-1) were installed.

Monitoring wells MW-4 and MW-4d were installed within Hoyt Street in the apparent upgradient location. The work plan identified two shallow wells (MW-4 and MW-6) along the southern portion of the site. However, access problems and the presence of the deep ground water zone resulted in the installation of well nest MW-4 and MW-4d. Deep wells (MW-2d and MW-3d) were installed adjacent to existing downgradient shallow wells MW-2 and MW-3 as specified in the Work Plan. The well nests provide a means of evaluating the vertical extent of ground water contamination and vertical hydraulic potential. MW-7, as identified in the Work Plan, was not installed as permission could not be obtained to access the adjacent property.

Free-phased fuel oil was encountered while drilling B-22; therefore, the boring was converted to MW-8 to evaluate product thickness. Subsequently, a product

recovery system utilizing a 6-inch recovery well (RW-1) was installed. The 2,500 gallon UST and 60 cubic yards of affected soil were removed in April 1992. The product recovery system is presently (6/92) operating. Specific details about the IRMs are presented in the IRM Report.

As part of the IRM program, a 6-inch temporary dewatering well (Well-5) was installed at the former UST area to aid in the dewatering of soil prior to excavation. The well was removed during soil excavation and replaced with a permanent ground water recovery well (RW-2).

The monitoring wells (MW-2d, MW-3d, MW-4s, MW-4d, and MW-8) and RW-1 and Well-5 were installed using hollow stem auger drilling methods. Split barrel samples were collected continuously at each location in accordance to ASTM Method D 1586-84. Due to the "running sands" encountered below 20 ft., split spoon samples were collected at 5-foot intervals below 20 ft. Upon retrieval, soil samples were be placed in eight-ounce glass jars and covered with aluminum foil for subsequent volatile organic headspace screening with a PID. The PID was calibrated each day as specified by the QAPP and the calibrations forms are presented as Appendix D. Samples were visually described and logged in detail by the supervising O'Brien & Gere geologist. Soil samples collected during monitoring well installation were not submitted for laboratory analyses. Specific soil classifications are presented on the boring logs in Appendix B.

The monitoring wells were constructed using 10 feet of 2-inch I.D. machine slotted PVC (0.010 inch slot size) well screen attached to an appropriate length of 2-inch I.D. flush joint threaded PVC riser casing. The well screen for the deep wells

was installed atop the bedrock whereas the shallow wells were screened across or near the water table.

Once the screened interval was selected, a washed, graded silica sand pack was placed around the well screen and extended a minimum of 1 foot above the top of the screen. A 2-foot bentonite seal was then placed above the sand pack and the remainder of the annular space was tremied with a 95 percent Portland Cement/5 percent bentonite grout mixture. A locking flush mounted or locking protective well casing was then cemented in place. Specific well construction details are presented in Table 7 and Appendix B. A field instrument survey was completed by a licensed New York State surveyor to establish the horizontal location and vertical elevation of newly installed and existing wells.

Drill cuttings and spoils generated during completion of the monitoring wells were placed in the vicinity of the UST Area. The split spoons were cleaned between samples using a phosphorous-free detergent wash followed by a clean water rinse. Other drilling equipment was decontaminated between locations using a portable steam cleaner. Decontamination water was allowed to percolate into the ground at the designated decontamination location.

Following installation, the new monitoring wells were developed to enhance the hydraulic connection between the well and the ground water system. Development was completed by bailing the wells with a decontaminated bailer attached to new polypropylene rope. Development was continued for 2 hours. The purge water was contained and placed in the vicinity of the UST area with the exception of water obtained from MW-8 which contained free-phased fuel oil. The development water

from MW-8 was placed in DOT 17h-barrels and was disposed with the affected soil when the fuel oil tank was decommissioned.

2.02.01 Ground Water Sampling and Analyses

Ground water samples were collected on two occasions from MW-2, MW-2d, MW-3, MW-3d, MW-4 and MW-4d as part of the Phase I Focused RI. First round samples were collected between February 17 to 19, 1992 and second round samples were collected on April 15 and 16, 1992 The samples were analyzed for NYS TCL volatile organics and inorganics using NYSDEC ASP procedures. Gas Chromatograph/Mass Spectrophotometry methodology (GC/MS) was utilized in the February sampling event while GC methodology was utilized in the April sampling. The first round of samples were to be analyzed using GC methods; however, due to an equipment malfunction at the laboratory, the samples were analyzed using GC/MS methods. TPHs were analyzed using USEPA Method 418.1. Due to the elevated turbidity of the samples, both dissolved (filtered) and total (unfiltered) inorganics were analyzed in accordance with NYSDEC TAGM HWR-88-4015 dated September 30, 1988. The ground water organic data are summarized in Table 8 and Figure 4 while the inorganic data are summarized in Table 9. Data validation for the ground water samples is presented in Appendix E. A complete laboratory package is presented under separate cover.

Ground water samples were collected from Well-5 and RW-2 (ground water recovery well) on several occasions for VOC analyses. Results of these analyses are summarized in Table 10 and Figure 4.

Ground water samples, with the exception of Well-5 and RW-2, were collected in accordance with procedures outlined in the QAPP. Well-5 and RW-2 were not installed or sampled as part of the remedial investigation, however, the data from these wells is included in this report in order to provide a more complete understanding of site conditions. Prior to initiating sampling, a complete set of static water levels was collected from wells to evaluate ground water flow direction and to calculate the volume of water present in each well. Wells were sampled from the anticipated least contaminated to most contaminated to reduce the possibility of cross-contamination.

Prior to sample collection, the wells were purged, using a decontaminated stainless steel bailer equipped with dedicated polypropylene rope, until a minimum of three well volumes were removed or until the well went dry. Samples were collected and immediately transferred to appropriate containers as specified in the QAPP. Samples were placed in coolers and packed with ice for shipment to NYTEST Environmental Inc. Chain of custody documentation was initiated at the time of sample collection and the forms are presented in Appendix C. Other specific ground water sampling details are found on the ground water sampling logs presented in Appendix F. Ground water samples from Well-5 and RW-1 were collected from a spigot as part of the IRM program. Samples could not be collected using a bailer as the pumping system within Well-5 and RW-1 interfered.

The stainless steel bailer used for sampling was cleaned using an eight-step decontamination process as follows:

1. Alconox and tap water wash;
2. Tap water rinse;
3. Distilled water rinse;
4. 10% nitric acid rinse;
5. Distilled water rinse
6. Acetone Rinse;
7. Air dry; and
8. Distilled water rinse.

Field measurements of pH, specific conductance, and temperature were collected during sampling and are included on the ground water sampling field logs presented in Appendix F.

2.03 Hydraulic Conductivity Tests

Subsequent to the completion of well installation and development, hydraulic conductivity tests were conducted on each monitoring well excluding MW-8 (free-phased fuel oil present). These tests evaluated the horizontal conductivity of the saturated sediments movement beneath the site.

The tests were conducted in accordance with the procedures outlined in the QAPP. An Aquistar pressure transducer system and inert slug was utilized. Equipment that was placed in the well was pre-cleaned using an alconox wash followed by a distilled water rinse. The test involved pre-insertion of the pressure transducer into the well. A PVC rod was then inserted into the well in order to create a positive head potential between the well and the surrounding aquifer (slug test). The rate of water level decline was recorded by the transducer system.

Data obtained from the tests were evaluated using the Bouwer & Rice Method. The calculations and raw data are presented in Appendix G.

2.04 Surface and Ground Water Elevation Monitoring Plan

Upon completion of well installation and development, each monitoring well and surface water benchmark were located horizontally and vertically by a field instrument survey. Water elevations were collected on several occasions at the facility and are presented on Table 7. Ground water elevation data collected from February 19, 1992 and April 15, 1992 were used to create ground water flow maps which and are presented as Figures 5, 6, 7, and 8.

Additionally, surface water and ground water elevations were monitored for a period of one week at 15-minute intervals using a pressure transducer system to evaluate the interaction of the ground water and surface water systems. Figures 9A and 9B presents the stream and ground water elevations monitored throughout the sampling period. The field data are presented in Appendix H.

2.05 Surface Water and Sediment Sampling Plan

Surface water and sediment samples were collected on two occasions from three locations along the Sheldrake River to evaluate the impact, if any, the site may have on the stream sediments and the surface water quality. One sample of each media (water and sediment) was collected upstream, one near the midpoint of the site, and one downstream of the site as illustrated on Figure 2. The surface water and sediment samples were analyzed for NYS TCL volatile organics and inorganics using NYSDEC ASP procedures. GC/MS methodology was used for the February

1992 sampling event while GC methodology was used for the April 1992 sampling. As previously discussed, the first round of samples were to be analyzed using GC methods, however, due to an equipment malfunction at the laboratory, the samples were analyzed using GC/MS methods. TPHs were analyzed using USEPA Method 418.1. The organic chemistry of the surface water and stream sediment samples are summarized on Figures 10 and Figure 11 and Tables 11 and 13, respectively. The inorganic data are summarized on Tables 12 and 14. The data validation is presented in Appendix E and the laboratory data sheets are presented under separate cover.

As specified in the QAPP, the stream bank adjacent to the site was traversed during each sampling event to locate seeps which may directly discharge to the Sheldrake River. No seeps were observed emanating from the stream bank during either sampling event.

SECTION 3 - PHYSICAL CHARACTERISTICS OF THE STUDY AREA

3.01 Meteorology

The climate of the Westchester County area is moderate, with an average temperature of 51 degrees fahrenheit (US Army Corps of Engineers, 1977). The temperature extremes vary from a low of approximately minus 18 degrees fahrenheit, to a high of approximately 105 degrees fahrenheit. Average humidity is approximately 67 percent and the prevailing winds are from the northwest with an average velocity of 14 mile per hour (U.S. Army Corps of Engineers, 1977). The average annual precipitation in the Westchester County area is approximately 45 inches, with observed extremes of 26 inches to 67 inches per year (US Army Corps of Engineers, 1977). The average annual snowfall in this area is approximately 39 inches with a rainfall equivalent of 4 inches. The distribution of precipitation throughout the Westchester County area is fairly consistent, with slightly higher amounts falling in the summer months (U.S. Army Corps of Engineers, 1977).

3.02 Regional Geology and Hydrogeology

The southern portion of Westchester County, including the Village of Mamaroneck, is in the sub-area of the New England Uplands identified as the Manhattan Hills (U.S. Army Corps of Engineers, 1977). The geology and hydrogeology of the Westchester County is divided into two categories, which include unconsolidated and consolidated deposits.

The surficial features associated with the southern Westchester County area are predominantly low-lying plains and flat broad valleys separated by low rolling

hills (U.S. Army Corps of Engineers, 1977). The Village of Mamaroneck is located in one of these low-lying areas.

Unconsolidated deposits are predominately Pleistocene tills, clays, silts, sands and gravels. Well yields from these materials can vary widely from no yield at all in clays, to hundreds of gallons per minute in the sands and gravels. In Westchester County, the sand and gravel aquifers are the best source of water in the unconsolidated deposits (Asseltine and Grossman, 1955). These deposits, however, are usually thin and of relatively small areal extent (Asseltine and Grossman, 1955). Till deposits are the most widespread unconsolidated deposits found in Westchester County. These deposits range in thickness from zero on some hill tops to over one hundred feet in some valley areas. Due to the heterogeneous nature of till, well yields tend to be low, averaging less than five gallons per minute.

The bedrock associated with the Mamaroneck area is typically a metamorphic schist or gneiss associated with the Hartland Formation (Asseltine and Grossman, 1955). The bedrock surface is typified by alternating ridges and depressions. These features routinely trend in a northeasterly-southwesterly direction. Wells installed in bedrock generally have low yields suitable where only moderate supplies of water are needed, such as domestic uses (Asseltine and Grossman, 1955). The source of water in bedrock usually occur in fractures or solution cavities.

Ground water is not used as a source of potable water in the vicinity of the facility. The village of Mamaroneck is serviced by public water which is purchased from New York City reservoirs. The soils in the area are of the Charlton association (Westchester County Soil and Water Conservation Department, 1978). The Charlton soils are characterized by being nearly level to gently sloping (0 to 3%) and being

deep, well drained and moderate to moderately-coarse in texture (Westchester County Soil and Water Conservation Department, 1978).

The Sheldrake River, which flows past the site, is approximately 7 miles long and joins the Mamaroneck River about 0.25 miles downstream of the site. The Mamaroneck River ultimately discharges into the Long Island Sound. The Sheldrake River is prone to flooding in some areas. A Feasibility Report for controlling the flooding was completed by the U.S. Army Corps of Engineers in 1977. The report indicated that four reservoirs are located on the Sheldrake River approximately 1.5 miles upstream of the site. Base flow discharge of the Sheldrake River was typically less than 10 to 20 cubic feet per second (CFS) at the confluence of the Mamaroneck and Sheldrake Rivers. During extreme storms, the flow increased to 845 CFS at the mouth of the river (U.S. Army Corps of Engineers, 1977). The affect that a given storm will have on the discharge of the river is variable and is related to the available holding capacity of the reservoirs. To date, none of the U.S. Army Corps recommendations for flood control have been implemented (Diamond, 1992).

3.03 Site Geology and Hydrogeology

As a result of the site investigations, it is possible to characterize the site geology and hydrogeology.

3.03.01 Site Geology

The geology of the site is represented by a shallow unit and deep unit. The shallow unit is comprised of fill, silt, sand, and a peat layer. The deeper unit is characterized by sand and gravel which lies immediately above

bedrock. No monitoring wells were installed in bedrock at the site. Two hydrogeologic cross-sections of the site have been prepared and are presented as Figure 13 and Figure 14.

The site is generally covered by about 6 inches of asphalt. Beneath the asphalt, fill material is present which varies in thickness from about 2 ft at MW-3d to 6 feet of fill material at B-11. The fill material consists of mostly black, fine to coarse grained sand and fine to coarse grained gravel with high percentages of cinders and slag material. Underlying the pavement and fill material are olive gray silts with layers of peat, sands and clay. The shallow unit ranges in thickness from about 18 ft at MW-2d to 11 ft at MW-4d.

The deep unit consists predominately of sand with some gravel and silt. This unit ranges in thickness from 30 ft (MW-3d, 12 to 42 ft below the ground surface) to 14 ft (MW-2d, 15 to 29 ft below the ground surface). The deeper unit extends to the top of bedrock. The sands and gravels are moderate to poorly sorted and appear to grade downward from finer sand at the top to coarser sand at the bottom. The depth to bedrock at the site ranges from 29 ft at MW-2d to 42 ft at MW-3d.

3.03.02 Site Hydrogeology

The site hydrogeology is also characterized by shallow and deep ground water unit. Ground water elevations were collected on several occasions and are summarized on Table 1. In general, depth to ground water ranges from 5 to 8 feet below the ground surface.

3.03.03 Shallow Ground Flow

A total of six shallow ground water wells have been installed at the site. For the basis of this discussion, only data from MW-2, MW-3 and MW-4 have been utilized. Depth to water information was not collected from Well-5 (temporary dewatering well), MW-7 (fuel oil recovery well) and MW-8 due to active pumping or the presence of free-phased product. Specific information regarding the recovery systems is presented in the Interim Remedial Measures report prepared by O'Brien & Gere Engineers, Inc. dated July 1992.

Figures 5 and 7 illustrate the shallow ground water flow pattern for the February 1992 and April 1992 dates. The figures illustrate that in February 1992 the ground water flow direction was to the north at a hydraulic gradient of 0.006 ft/ft. Ground water flowed to the north to northwest in April 1992 at a gradient of 0.004 ft/ft. The water elevation of the Sheldrake River was collected on several occasions and these data indicate that the stream elevation is lower than the ground water elevation. This data indicate that site shallow ground water probably discharges to the river. It should be recognized that the ground water flow direction and rate may vary based on the stage of the Sheldrake River. The results of the week long surface water and ground water monitoring indicated that water elevations within MW-2 and MW-3 reacted almost instantaneously to an increase in water elevation of the Sheldrake River (Figure 9A). This indicates that the shallow aquifer is in direct hydraulic connection with the Sheldrake River.

Results of the hydraulic conductivity tests indicated a range in hydraulic conductivity in the shallow aquifer from 2.1 X 10^{-3} cm/sec at MW-4

to 3.6 X 10^{-4} cm/sec at MW-2. These values are typical given the generally silty nature of the shallow ground water unit.

The ground water discharge and velocity calculations are presented in Appendix I. The calculations suggest that the discharge from the shallow aquifer system to the Sheldrake River varies from 84 gallons/day (gpd) to 754 gpd. The ground water flow velocity for the shallow aquifer was estimated to range from 3.7 feet/year to 33 feet/year. The flow rates and velocities will vary due to the interaction of the surface water and shallow ground water.

3.03.04 Deep Ground Water Flow

Three deep ground water monitoring wells (MW-2d, MW-3d and MW-4d) were installed as part of this Focused RI. These wells were installed immediately atop the bedrock in sand and gravel.

Figures 6 and 8 illustrate the deep ground water flow pattern for the February 1992 and April 1992 dates. The figures illustrate that the ground water flowed to the north to northwest in February under a hydraulic gradient of 0.001 ft/ft. In April 1992, the ground water flow direction was to the north to northeast under a gradient of 0.001 ft/ft. As previously mentioned, it should be recognized that the ground water flow direction and rate may vary based on the stage of the Sheldrake River. The water elevations measured during the week long monitoring, which are presented on Figure 9A, suggest that the deep ground water in the vicinity of MW-3d is in hydraulic connection with the Sheldrake River since responded to an increase in the water elevation of the river. MW-2d did respond to the increases in water levels of

the Sheldrake River but to a lesser extent than MW-3d (Figure 9B). This suggests that MW-3d is in greater hydraulic connection with the Sheldrake River than MW-2d. The hydraulic connection between the ground water and the Sheldrake River indicate that there is a pathway for the ground water to discharge into the river. Since the water elevations of MW-2d and MW-3d are higher than the water elevation of the Sheldrake River, this deep ground water likely discharges to the river.

Results of the hydraulic conductivity tests indicated the range in hydraulic conductivity in the deep aquifer was from $1.7X10^{-3}$ cm/sec at MW-3d to $1.0\ X10^{-4}$ cm/sec at MW-2d.

The ground water flow and velocity calculations are presented in Appendix H. The calculations suggest that the flow through the deep aquifer system may vary from 11 gpd to 191 gpd. The ground water flow velocity for the deep aquifer was estimated to range from 0.34 ft/year to 5.8 ft/year. The ground water flow and velocity may vary due to the interaction of the surface and ground water.

3.03.05 Vertical Ground Water Flow and Storm Water Monitoring

By comparing the ground water elevations of the deeper wells with those of the shallow wells at the same location, it is possible to evaluate the vertical hydraulic flow potential between the two different zones. Throughout the Focused RI, collected ground water elevation data indicated an upward flow potential from the deep unit to the shallow unit. This information suggests that water from the deep zone discharges to the Sheldrake River.

SECTION 4 - ANALYTICAL RESULTS

4.01 Data Validation Summary

The analytical data generated for the ITT Sealectro site in Mamaroneck, New York, were validated based on QA/QC criteria and data quality objectives presented within the Quality Assurance Project Plan (QAPP) for this project, by the New York State Department of Environmental Conservation (NYSDEC) Superfund protocol, and the United States Environmental Protection Agency (U.S. EPA) Contract Laboratory Program (CLP).

Three rounds of samples were collected during the investigation. The first round of samples consisted of thirty one soil samples, collected from January 27, through February 7, 1992. Three of the samples were submitted for NYSDEC Superfund analysis, the remaining samples were analyzed by USEPA CLP protocol. The second round of sampling consisted of the collection of ten water samples and four sediment samples collected between February 19, and February 21, 1992. The third round of sampling was a duplication of the second round of sampling and was collected on April 15, 16, and 23, 1992.

A modification of the QAPP was performed in the second round of volatile analysis. The proposed method for analyzing volatile organics was specified as EPA CLP 8010/8020, due to problems with the laboratory's GC instrumentation, the method was switched to GC/MS 8240. This did not present a problem in qualitative or quantitative evaluation the sample data.

Upon completion of the data validation, it was determined that more than 99% of the analytical data for these three rounds of samples are useable for qualitative and quantitative purposes consistent with QAPP and QA/QC criteria.

4.02 Soil Chemistry

Twelve soil borings, designated B-11 through B-24, were installed at the Sealectro facility from January 21, 1992 through February 10, 1992. The purpose of the soil borings installed in this field investigation was to characterize the nature of the subsurface material, and to provide an assessment of the soil quality in the vicinity of the four areas of study. These areas of study are:

1) the Drum Storage Pad Area;
2) the Underground Storage Tank Area;
3) the Wastewater Treatment Area; and
4) the 2,500 Gallon Fuel Oil Tank Area.

4.02.01 Drum Storage Pad Area

As part of the Focused RI three soil borings (B-11, B-12, and B-13) were completed in the vicinity of the Drum Storage Pad Area as indicated on Figure 2. Soil samples and analytical data collected during previous investigations are presented on Figures 15 and 16. Analytical data collected during the Focused RI are summarized on Tasks 1 through 6 and Figure 15. Presently (6/92), as part of an IRM, a soil vapor extraction system is being utilized to reduce the concentrations of VOCs in the area. Specific informa-

tion regarding the IRM are presented in the IRM Report dated June 1992 prepared by O'Brien & Gere Engineers, Inc.

Specifically, the following boring and surface soil samples were collected as part of previous investigations:

A) Site Assessment (January 1986): Soil samples 8 and 9

B) Environmental Assessment (June 1988): Soil borings B-1 and B-2

C) Sampling Program (August 1989): Eight soil borings (B-3, B-4, B-5 B-6, B-7, B-8, B-9, and B-10) and two surface soil samples (SS-1 and SS-2).

D) Soil Vapor Investigation (October 1991): Seven inlet wells (IW-1, IW-2, IW-3, IW-4, IW-5, IW-6, and IW-7) and two extraction wells (EW-1, EW-2).

The analytical data collected to date indicate that TCA, TCE, PCE, 1,2-DCE, DCA, xylene toluene and other related compounds were found in the soil. The results of the New York State Target Compound List - Superfund Analyses completed at Boring 12 (8 to 10 ft) indicated that PCB Arochlor 1254 was detected at 0.94 ppm (estimated) and bis(2-ethylheyl)phthalate (a common plasticizer from gloves) was detected at 1.4 ppm (Tables 6 and 5, respectively). The concentration of PCB Arochlor 1254 could not be quantified accurately because it was below the ASP specified detection limit. Other semivolatiles and PCB/pesticides were not detected. The data demonstrated that the main parameter of concern in this area is VOCs.

The soil analytical data indicated that the highest VOC concentration (160 ppm to TCA) was observed in a June 1986 sample collected at SB-8 which is located on the adjacent property (Figure 15). Elevated levels of VOCs were detected in samples collected throughout the area. The compounds detected included TCA, DCA, TCE, PCE, 1,2-DCE, CT, EB, CM, DCM, toluene, and xylene.

The vertical extent of soil contamination in the Drum Storage Pad Area has been defined. Samples collected from borings B-11 and B -12 did not detect VOCs at either the 6 to 8 ft depth, the 10 to 12 ft or 10 to 14 ft depths.

The lateral extent of VOC soil contamination at the Drum Storage Pad Area is bounded to the north by the Sheldrake River and to the south by B-13. The eastern and western limits have been defined by B-1 and B-2, respectively.

Inorganic elements including chromium, iron, lead, magnesium, nickel, vanadium and zinc were detected at levels slightly above typical New York State Soil Concentrations (McGovern). In general, the exceedances were detected at B-11 and B-12 at the deeper sample depths. These data suggest that these metals are naturally occurring and are not related to the Drum Storage Pad Area.

4.02.02 Underground Storage Tank Area

As part of the Focused RI, five test borings were completed in and around the UST area. Specifically, B-17 was advanced in the excavation of the

former USTs, while B-18, B-19, B-20, and B-21 were installed around the perimeter of the UST Area. As part of an IRM, the tanks were removed and the affected soil was excavated to a depth of 11 ft. A ground recovery system was installed and is currently operating. Soil samples (June 1991) and one additional test boring (EB-1(October 1991)) were collected as part of the IRMs. These data are included in this discussion. More specific information regarding the IRM are presented in Appendix A1 and the IRM Report prepared by O'Brien & Gere, Engineers, Inc. dated June 1992. Data from Tables 1 through 6 and Figure 3 present the analytical data collected during the Focused RI.

The results of the New York State Target Compound List - Superfund Analyses completed at Boring 17 (8 to 10 ft) indicated that VOCs are the major concern at the this area (Table 3). Phthalates, which are common plasticizers, were found in various forms and their presence is likely related to field collection activities and/or laboratory contamination (Table 5). No PCB/pesticides (Table 6) or other semivolatile compounds (Table 5) were detected.

The highest VOC concentration was observed at B-17 which was located through the center of the UST Area. PCE (6,000 ppm) and TCA (2,200 ppm) were detected in this sample. VOCs were detected in the other borings in this area at lower concentrations. VOC concentrations increased with depth from the 3 ft to 9 ft sample to the 9 to 11 ft sample, but decreased between the 9 to 11 ft and the 11 to 15 ft samples by three orders of magnitude. As part of an IRM, the soil was excavated to 11 ft. Data from

B-17 (11 to 15 ft sample) indicated that acetone was detected at 74 ppm, which is likely due to laboratory contamination. Soil samples collected from immediately beneath the tank during the IRM also indicated levels of VOCs commensurate with B-17 (see Appendix A1).

EB-1, installed as part of an IRM and located near the edge of the former excavation, indicated VOCs at lower concentrations than B-17. Specifically, 1,1-DCA (4.9 ppm), 1,1-DCE (3.7), 1,2-DCE (36 ppm), PCE (78 ppm), TCA (67 ppm), TCE (5.2 ppm), and xylene (13 ppm) were detected. The decrease in concentrations when compared to the data collected at B-17 indicates that the majority of the affected soils were confined to the immediate area of the tanks.

The horizontal extent of VOCs in the soil around the UST Area was evaluated by borings B-18, B-19, B-20 and B-21. The locations of these borings were dictated by the presence of utilities and access inside the building. A complicating factor at the site, due to shallow depth to ground water (approximately 6 to 8 ft), is the differentiation between soil contamination and ground water contamination. Concentrations of VOCs in the upper ppm range indicate that the soil is contaminated while concentrations of VOCs in the low ppm to ppb range suggest that the VOCs observed are associated with ground water.

The affected soil in the UST Area is bounded to the east by B-21, where no VOCs were detected. To the west of the UST Area at B-19 (8 to 10 ft), ethylbenzene (0.15 ppm) xylene (0.92 ppm) and toluene (13 ppm) were detected. Concentrations of PCE (0.22 ppm) and 1,1-TCA (0.18 ppm) were

detected in the 18 to 20 ft sample. These VOCs are likely related to ground water contamination emanating from the UST area. To the north, analysis of B-20, which is located within the building, detected 1,2-DCE (0.24 ppm), PCE (2.1 ppm), toluene (4.3 ppm), TCE (3.4 ppm) and TCA (0.55 ppm). These concentrations are also more indicative of ground water contamination at the site. The VOC levels observed were greater than detected in other borings; however, B-20 is located immediately downgradient of the UST Area. At B-18, located south of the UST Area and within Hoyt Street, relatively low concentrations of PCE (0.78 ppm) and toluene (1.6 ppm) were detected in the 6 to 8 ft sample. The concentrations and the compounds detected suggest that the VOCs are likely related to the site and are attributed to the ground water. The decrease in VOC concentrations at B-17 from the 9 to 11 ft and the 11 to 15 ft samples (3 orders of magnitude) suggests the vertical extent of soil contamination is limited to the upper 11 ft at the UST area.

Inorganic data indicated that concentrations of various metals were detected in the borings at concentrations slightly above the typical soils in NYS. These concentrations may be naturally occurring.

4.02.03 Wastewater Treatment Area

As part of the Focused RI, three test borings (B-14, B-15 and B-16) were installed in the vicinity of the former Wastewater Treatment Area. This area was also investigated as part of the Site Assessment and the Environmental Assessment conducted in 1986. The results of the NYS Target Compound List - Superfund Analyses completed at Boring 15 (2 to 6 ft) are presented on

Tables 3 through 6. The results indicated that a number of semivolatile compounds were detected. Theses compounds are generally indicative of incomplete petroleum combustion. Review of boring logs indicated that the 2 to 6 ft interval was comprised of fill material. It is likely that the compounds are related to the fill material and are not related to site activities. Additionally, phthalates, which are common plasticizers, were also detected in the sample. No PCB/pesticides or other semivolatile compounds were detected. Several inorganic compounds were detected. Low levels of VOCs were detected including acetone (0.064 ppm), methylene chloride (0.003 ppm), 1,1,-DCA (0.002 ppm), TCA (0.001 ppm), PCE (0.011 ppm) and toluene (0.004 ppm). Similar concentrations of VOCs were also detected in the samples analyzed from B-14, B-15 and B-16. The concentrations are likely representative of ground water emanating from the UST area. The data do not suggest that a source of VOCs is present in the vicinity of the Wastewater Treatment Area.

The inorganic data indicated that concentrations were above NYS typical soil concentrations for copper, nickel, and zinc at B-14 (6 to 8 ft). These and other compounds were detected in the other samples slightly above NYS typical concentrations. Elevated concentrations of silver and copper were also detected in several samples collected during previous investigations.

4.02.04 Fuel Oil Underground Storage Tank Area

As part of the Focused RI, two test borings (B-22 and B-23) were to be installed around the perimeter of the 2,500 gallon UST. While drilling B-

22, free-phased fuel oil was observed and therefore, a ground water monitoring well was installed (MW-8). B-23, which was located to the south of the UST and within Hoyt Street, indicated TPH concentrations ranging from 460 ppm (4 to 6 ft) to 300 ppm (6 to 10 ft). B-24 was completed within 10 ft of MW-8 and free product was not observed.

Based on this information, a ground water recovery well (RW-1) was installed immediately adjacent to MW-8 as part of an IRM. The tank and surrounding soil (approximately 60 cubic yards) were excavated for disposal. The product recovery well and system were installed in February 1992 and are presently operational (6/92). The lateral extent of free product was defined to the east and west by B-24 and B-21, respectively. The southern edge of free product was determined during the during the tank removal and by B-23. The northern edge of free product was not determined but likely extends beneath the building. Specific information regarding the tank removal and product recovery system is presented in the IRM Report dated July 1992.

4.03 Ground Water Analyses

As part of the Focused RI, ground water samples were collected on two occasions from monitoring wells MW-2, MW-2d, MW-3, MW-3d, MW-4 and MW-4d for NYS TCL volatile organics using NYSDEC-ASP procedures, total petroleum hydrocarbons using USEPA Method 418.1, and dissolved (filtered) and total metals (unfiltered) according to NYSDEC-ASP. The results are summarized on Tables 8 and 9. Ground water data collected during the IRM from Well-5 (temporary dewatering well) and the permanent ground water recovery well (RW-2) installed in

the UST area are summarized on Table 10. The ground water data indicated that VOCs including TCA, TCE, PCE, 1,1-DCE, 1,2-DCE, 1,1-DCA, 1,2 DCA, 1,1-DCE, DCM, benzene, toluene and chloroform were detected.

The highest concentrations of VOCs in the ground water have been detected in the permanent ground water recovery well RW-2 installed at the former UST Area. RW-2 detected TCA (85,000 ppb) and PCE (130,000 ppm) on the April 10, 1992 sampling date. The sample from RW-2 collected on June 17, 1992 indicated a variety of VOCs including TCA (70,000 ppb), PCE (15,000 ppb), 1,2-DCE (1,700 ppb), 1,1-DCA (5,500 ppb), 1,1-DCE (1,200 ppb), TCE (1,000 ppb) and toluene (3,900 ppb). Although the chemical constituents detected varied between the April and June sampling dates, the total VOC concentrations (215,000 ppb versus 123,600) indicate that the IRMs at the Former UST Area have had a positive affect and that the ground water quality continues to improve.

Well MW-4, installed hydraulically upgradient of the facility within Hoyt Avenue, detected 1,2-DCE (74 ppb), vinyl chloride (9 ppb) and TCE (2 ppb) during the February sampling event while only TCE (38 ppb) was detected in the April sampling event. PCE was detected at 3 ppb in the deep well in the February sampling event while no VOCs were detected in the April sampling event. These concentrations are likely the result of chemical dispersion from the UST area although they could represent an upgradient source.

The concentrations of VOCs decrease downgradient of the UST area. At well nest MW-2, located on the western portion of the site adjacent to Sheldrake Creek, 1,1-DCA and 1,1-DCE were detected at 22 ppb and 19 ppb in MW-2 during the February sampling event. During the April sampling event, VC (130 ppb) and 1,1-

DCA (60 ppb) were detected. Similar concentrations of VOCs were observed in deep well MW-2d. The concentrations of VOCs in this area are likely related to soil contamination in the Drum Storage Pad Area as well as the UST Area. The concentration of VOCs in the February sampling event was greater in the deep well than the shallow wells, but the relative concentrations were reversed in the April sampling event. This suggests that concentration of VOCs are evenly distributed between the shallow and deep zones at wells MW-2 and MW-2d.

Monitoring wells MW-3 and MW-3d, located downgradient of the UST area along the eastern portion of the site adjacent to the Sheldrake River, indicated higher levels of VOCs than were detected at MW-2 and MW-2d. These higher levels may be attributed to the location of MW-3, which is more directly downgradient of the UST area based on the ground water flow direction determined in February 1992. Specifically, 1,1-DCE (410 ppb), 1,1-DCA (220 ppb), and TCA (530 ppb) were detected while other VOCs were detected at low concentrations during the February sampling event. Similar concentrations were detected in the April sampling event. MW-3d, screened in the sand deposit, indicated lower concentrations of VOCs than MW-3. In well MW-3d, PCE (420 ppb) and TCA (330 ppb) were detected on February 19, 1992 while other related VOCs were detected at less than 20 ppb. The VOC concentrations were greater in the shallow well then in the deep well in the both the February and April sampling events. The deep well detected PCE and TCA in the highest concentrations, while typical degradation products such as 1,1-DCE, 1,1-DCA, and 1,2-DCE were detected in the shallow wells. This suggests that there is an increased rate of biological degradation in the shallow zone when compared to the deeper zone.

The vertical extent of VOCs in the ground water is assumed to be defined by the top of bedrock. The southern and western extent of VOCs are in the vicinity of well nest MW-4 and MW-2 based on the relatively low concentrations of VOCs observed. The actual extent of contamination could not be defined to the south as a result of the Amtrak train lines, nor to the west where permission could not be obtained to access the property. The eastern extent of contamination was not defined. The northern extent of contamination is likely limited by the Sheldrake River.

For the purposes of this report, only the results of the dissolved (filtered) inorganic analyses are discussed. Both dissolved (filtered) and unfiltered (total) samples were collected because the ground water samples contained sediment as indicated by turbidity values greater than 50 NTUs. Although NYCRR Part 703 Standards and NYSDOH drinking water standards are based on unfiltered samples, the NYS Class GA and NYS Maximum Contaminant Limit (MCL) for turbidity limits for drinking water supplies are 5 and 1 NTUs, respectively. When low turbidity values are encountered, both filtered and unfiltered samples have similar concentrations of inorganic elements due to the limited presence of sediment to dissolve in the ground water. When greater amounts of sediment are present in the ground water, the metallic ions from the sediment dominate the ground water chemistry. Therefore, unfiltered ground water samples should not be considered representative of drinking water.

The results of the filtered inorganic data presented on Table 9 indicated that sodium, iron, magnesium, and manganese occurred above NYS MCLs and/or Class GA standards. The elevated concentrations of iron, manganese, and magnesium are

likely naturally occurring as the concentrations of some inorganics are higher in the upgradient wells. The elevated sodium concentrations may be related to road salt, since the greatest concentrations were observed at MW-4 located within Hoyt Avenue.

4.04 Surface Water/Stream Sediment Chemistry

As part of the Focused RI, sediment and surface water samples were collected from three locations along the Sheldrake River during the February 1992 and April 1992 sampling events. The samples collected were analyzed for NYS TCL volatile organics using NYSDEC-ASP procedures, total petroleum hydrocarbons using USEPA Method 418.1, and NYS TCL - total inorganics (unfiltered) according to NYSDEC-ASP. The results are summarized on Tables 11 through 14 and Figures 10, 11, and 12. It should be noted that the river in this area contains debris typically consisting of automobile parts, glass and assorted refuse. Additionally, on January 31, 1992 at 08230, a petroleum sheen and gasoline odor was observed at the Sheldrake River. This sheen and odor emanated from a nearby facility The spill was reported to the Mamaroneck police and fire departments by employees of the Village of Mamaroneck.

4.04.01 Surface Water Chemistry

The surface water chemistry data indicated that 1,2-DCE, TCA, and TCE were detected at 10 ppb at SW-1 (upstream location) and 11 ppb at SW-2 (midpoint of site) during the February sampling event as indicated on Figure 11. VOCs were not detected at SW-3, located downstream of the site,

during the February sampling event. TCA was detected in the April sampling event at 24 ppb at SW-1 and SW-2, and at 19 ppb at SW-3. This suggests that a source of VOCs is located upstream of the site and that the site is not impacting the Sheldrake River.

The results of the inorganic analyses indicated that aluminum, iron and manganese were detected above NYS Class A surface water standards both upstream and downstream of the site. These elements are likely naturally occurring and/or related to the urban setting of site and are not directly related to the site. Silver was detected at SW-3 in the February sampling event at 54.1 ppb, which is slightly above the NYS Class A surface water standard of 50 ppb. Silver was detected below the standard in the April sampling event. In addition, the analytical detection limit for cobalt (6.9 ppb to 10.4 ppb) was above the Class A standard of 5 ppb. Total petroleum hydrocarbons were detected in the February sampling event at concentrations ranging from 10.9 ppm to 11.3 ppm, but were not detected in the April sampling event. The highest concentration of 11.3 ppm was observed upstream of the site. These TPH analyses further suggest that upstream sources of contamination, including the recently documented gasoline release are present.

4.04.02 Stream Sediment Chemistry

The sediment samples collected indicated MC, 1,2-DCE, TCE and PCE were detected at low concentrations (0.003 ppm to 0.008 ppm) at SS-1 and SS-2, which are located upstream and at the midpoint of the site, during

the February sampling event (see Figure 11 and Table 13). VOCs were not detected downstream of the site at SS-3 on this date. During the April sampling event, VOCs were not observed at SS-1 and SS-2, but were detected at SS-3. Specifically, chloroform (0.007 ppm), TCA (0.019 ppm) and PCE (0.014 ppm) were detected at SS-3. Elevated concentrations of TPHs were measured in stream sediments ranging from 23,000 ppm downstream in February to 747 ppm at the same location in April 1992. The elevated TPH analyses may be due in part to the petroleum spill which was observed on January 31, 1992.

Results of the inorganic data generally indicated greater concentrations at SS-2 and SS-3 than at SS-1 which is located upstream (see Figure 12 and Table 14). Elements which were detected above the typical range for New York State soils included arsenic, beryllium, cadmium, chromium, copper, iron, lead, magnesium, mercury, nickel, vanadium and zinc. Stream sediment sample SS-3 collected in February 1992 generally indicated concentrations between 4 and 10 times greater than other samples collected on the same date or from the sample collected at the same location in April 1992. These variations, as well as variations between duplicate samples collected on the same date, indicate that great variability exists in the stream sediment. This is likely related to the river being located in an industrial area and the asserted debris observed in the river.

SECTION 5 - CONCLUSIONS

The following information was obtained during the Phase I Remedial Investigation.

1. The geology of the site geology is represented by a shallow unit and deep unit. The shallow unit is comprised of fill, silt, sand, and a peat layer. The deeper unit is characterized by sand and gravels which lie immediately above bedrock.
2. The ground water flow direction in both the shallow zones and deep zones is to the north - northeast varies depending upon the stage of the Sheldrake River. The shallow and deep groundwater systems probably discharge to the Sheldrake River.
3. The analytical data from samples collected at the drum storage pad indicated that TCA, TCE, TTCE, PCE, DCE, DCA, xylene, toluene and other related compounds were found in the soil. The information indicated that the greatest concentrations of VOCs (160 ppm of TCA) were observed in June 1986 in the vicinity of SB-8, which is located on the adjacent property. The vertical extent of soil contamination in the area is limited to a depth of about 6 ft. The lateral extent of soil contamination at the drum storage pad is bounded to the north by the Sheldrake River and to the south by B-13. The eastern and western limits have been defined by B-1 and B-2, respectively.

4. The major concern at the UST area is VOCs. The highest VOC concentration of VOCs was observed at B-17 (9 to 11 ft) and contained PCE (6,000 ppm) and TCA (2,200 ppm). The concentrations of VOCs decreased significantly with depth at B-17. The vertical extent of soil contamination is about 11 feet. The horizontal extent of the VOCs in the soil around the UST area is bounded to the east by B-21, to the north by B-20, and to the south by B-18, which is within Hoyt Street. The western extent of contamination is defined by B-19. Based on this information, a ground water recovery well (RW-2) was installed in this area.

5. Free-phased fuel oil was observed during drilling of B-22 at the Fuel Oil UST area. The lateral extent of free product was defined to the east and west by B-24 and B-21, respectively. The southern edge of free product was determined during the tank removal and by B-23. The northern edge of free product was not determined, but likely extends beneath the building. Based on this information, a product recovery well (RW-1) was installed and is presently operating.

6. The analytical results of the soils in the vicinity of the former wastewater treatment area did not indicate the area is a source of VOCs. The results indicate concentrations of semivolatiles including anthracene, flouranthrene, pyrene, benzo(a)anthracene, benzoflouranthrene and other associated compounds at B-

15 (2 to 6 ft). The inorganic data indicated elevated concentrations of some metals.

7. The highest concentrations of VOCs in ground water (215,000) ppb has been detected in the area near Well-5 and RW-2. The primary VOCs at the UST include PCE and TCA. The southern and western extent of VOCs is in the vicinity of well nest MW-4 and MW-2. The eastern extent of contamination is not defined, as significant concentrations of VOCs were observed at well nest MW-3. The northern extent of contamination is likely limited by the Sheldrake River. The vertical extent of VOCs in the ground water is assumed to be defined by the top of bedrock. Several dissolved inorganic compounds were detected, but are attributed to background conditions.

8. The results of the surface water/stream sediment sampling indicated that the site is having little, if any, impact on the Sheldrake River. In the vicinity of the site, assorted garbage and automobile parts were found within the river. During the field work, petroleum was observed being discharged to the river from a nearby business. VOCs and/or inorganics were detected both upstream and downstream of the site.

Tables

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ENGINEERS, INC.

TABLE 1

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NEW YORK

SOIL ORGANIC DATA

						(FLD DUP)					
	B-11	B-11	B-12	B-12	B-13	B-13	B-13	B-14	B-14	B-15	B-15
DEPTH	6-8'	10-12'	6-8'	10-14'	4-8'	4-8'	10-12'	6-8'	16-18'	0.5-2'	6-8'
DATE COLLECTED	1/28/92	1/28/92	1/28/92	1/28/92	1/28/92	1/28/92	1/28/92	1/31/92	1/31/92	2/3/92	2/3/92
Chloromethane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	0.063	<0.002	<0.001	<0.001	<0.001
Bromomethane	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.013	<0.015	<0.013	<0.012	<0.014
Vinyl Chloride	<62	<64	<63	<68	<0.63	<0.65	<0.67	<0.77	<0.67	<0.61	<0.68
Chloroethane	<0.62	<0.64	<0.63	<0.68	<0.006	<0.006	<0.007	<0.008	<0.007	<0.006	<0.007
Methylene Chloride	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
1,1-Dichloroethene	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.013	<0.015	<0.013	<0.012	<0.014
1,1-Dichloroethane	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.013	<0.015	<0.013	<0.012	<0.014
1,2-Dichloroethene (total)	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Chloroform	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
1,2-Dichloroethane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.013	<0.015	<0.013	<0.012	<0.014
Carbon Tetrachloride	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Bromodichloromethane	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.013	<0.015	<0.013	<0.012	<0.014
1,2-Dichloropropane	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.013	<0.015	<0.013	<0.012	<0.014
cis-1,3-Dichloropropene	<12	<13	<13	<14	<0.13	<0.13	<0.13	<0.15	<0.13	<0.12	<0.14
Trichloroethene	<0.62	<0.64	<0.63	<0.68	<0.006	<0.006	<0.007	<0.008	<0.007	<0.006	<0.007
Dibromochloromethane	<0.62	<0.64	<0.63	<0.68	<0.006	<0.006	<0.007	<0.008	<0.007	<0.006	<0.007
1,1,2-Trichloroethane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	***	<0.001	<0.001	<0.001
Benzene	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.013	<0.015	<0.013	<0.012	<0.014
Trans-1,3-Dichloropropene	<0.62	<0.64	<0.63	<0.68	<0.006	<0.006	<0.007	<0.008	<0.007	<0.006	<0.007
Tetrachloroethene	<0.62	<0.64	<0.63	<0.68	<0.006	<0.006	<0.007	<0.008	<0.007	<0.006	<0.007
1,1,2,2-Tetrachloroethane	<0.62	<0.64	<0.63	<0.68	<0.006	<0.006	<0.007	<0.008	<0.007	<0.006	<0.007
Toluene	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.13	<0.015	<0.013	<0.012	<0.014
Chlorobenzene	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001

NOTES: Concentrations reported in mg/kg (ppm).
<1 - Compound not detected. "1" identifies the detection limit.
Compound is detected.
*** - These 3 compounds coelute using a SP1000 column.
One of these 3 was detected at a concentration of 2 ppb.
NA - Not Analyzed.
B - Detected in Blank.

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TABLE 1

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NEW YORK

SOIL ORGANIC DATA

						(FLD DUP)					
	B-11	B-11	B-12	B-12	B-13	B-13	B-13	B-14	B-14	B-15	B-15
DEPTH	6-8'	10-12'	6-8'	10-14'	4-8'	4-8'	10-12'	6-8'	16-18'	0.5-2'	6-8'
DATE COLLECTED	1/28/92	1/28/92	1/28/92	1/28/92	1/28/92	1/28/92	1/28/92	1/31/92	1/31/92	2/3/92	2/3/92
Ethylbenzene	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Xylene (total)	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
1,2-Dichloroethylene (total)	<0.12	<0.13	<0.13	<0.14	0.004	0.004	<0.001	0.002	<0.001	<0.001	<0.001
Dichloromethane	<0.12	<0.13	<0.13	<0.14	0.003	0.004	0.003 B	<0.002	<0.001	<0.001	<0.001
1,2-Dichloropropane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Cis-1,3-Dichloropropylene	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Trans-1,3-Dichloropropylene	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	***	<0.001	<0.001	<0.001
Ethylbenzene	<1.2	<0.13	<1.3	<1.4	<0.001	<0.001	0.005	<0.002	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
1,1,1,2-Tetrachloroethane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Tetrachloroethylene	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	0.014	0.001	<0.001	<0.001
Toluene	<1.2	<0.13	<1.3	<1.4	0.003	<0.001	0.004	0.006	<0.001	0.001	<0.001
1,1,1-Trichloroethane	<0.12	<0.13	<0.13	<0.14	0.003	0.004	<0.001	0.009	0.004	<0.001	<0.001
1,1,2-Trichloroethane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	***	<0.001	<0.001	<0.001
Trichloroethylene	0.7	<0.13	<0.13	<0.14	0.034	0.042	0.004	0.003	<0.001	<0.001	<0.001
Trichlorofluoropropane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
1,2,3-Trichloropropane	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Vinyl Chloride	<0.12	<0.13	<0.13	<0.14	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001
Xylene (total)	<1.2	<0.38	0.7	<.41	<0.004	<0.004	0.02	<0.005	<0.004	<0.004	<0.004
Acetone	<12	<13	<13	<14	0.13	0.21	0.3	<0.15	<0.13	<0.12	0.14
Methylethyl Ketone	<6.2	<6.4	<6.3	<6.8	<0.063	<0.063	<0.067	<0.077	<0.067	<0.061	<0.068
Methylisobutyl Ketone	<1.2	<1.3	<1.3	<1.4	<0.013	<0.013	<0.013	<0.015	<0.013	<0.012	<0.014
Total Petroleum Hydrocarbons	8,800	<100	11,000	140	<100	<100	<100	<100	<100	<100	<100

NOTES: Concentrations reported in mg/kg (ppm).
<1 - Compound not detected. "1" identifies the detection limit.
Compound is detected.
*** - These 3 compounds coelute using a SP1000 column.
One of these 3 was detected at a concentration of 2 ppb.
NA - Not Analyzed.
B - Detected in Blank.

TABLE 1

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NEW YORK

SOIL ORGANIC DATA

	(FLD DUP)						(FLD DUP)				COMP.
	B-15	B-16	B-16	B-17	B-17	B-18	B-18	B-18	B-19	B-19	B-20
DEPTH	6-8'	2-4'	10-14'	3-9'	9-11'	6-8'	6-8'	12-14'	8-10'	18-20'	0.5-13'
DATE COLLECTED	2/3/92	2/3/92	2/3/92	2/5/92	2/5/92	2/7/92	2/7/92	2/7/92	1/30/92	1/30/92	2/6/92
Chloromethane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Bromomethane	<0.013	<0.012	<0.013	<1,900	<2,900	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
Vinyl Chloride	<0.64	<0.59	<0.63	<96,000	<140,000	<91	<72	<0.56	<66	<63	<63
Chloroethane	<0.006	<0.006	<0.006	<960	<1,400	<0.91	<0.72	<0.006	<0.66	<0.63	<0.63
Methylene Chloride	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
1,1-Dichloroethene	<0.013	<0.012	<0.013	<1,900	<2,900	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
1,1-Dichloroethane	<0.013	<0.012	<0.013	<1,900	<2,900	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
1,2-Dichloroethene (total)	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Chloroform	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
1,2-Dichloroethane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
1,1,1-Trichloroethane	<0.013	<0.012	<0.013	<1,900	<2,900	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
Carbon Tetrachloride	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Bromodichloromethane	<0.013	<0.012	<0.013	<1,900	<2,900	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
1,2-Dichloropropane	<0.013	<0.012	<0.013	<1,900	<2,900	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
cis-1,3-Dichloropropene	<0.13	<0.12	<0.13	<19,000	<29,000	<18	<14	<0.11	<13	<13	<13
Trichloroethene	<0.006	<0.006	<0.006	<960	<1,400	<0.91	<0.72	<0.006	<0.66	<0.63	<0.63
Dibromochloromethane	<0.006	<0.006	<0.006	<960	<1,400	<0.91	<0.72	<0.006	<0.66	<0.63	<0.63
1,1,2-Trichloroethane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Benzene	<0.013	<0.012	<0.013	<1,900	<29,000	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
Trans-1,3-Dichloropropene	<0.006	<0.006	<0.006	<960	<1,400	<0.91	<0.72	<0.006	<0.66	<0.63	<0.63
Tetrachloroethene	<0.006	<0.006	<0.006	<960	<1,400	<0.91	<0.72	<0.006	<0.66	<0.63	<0.63
1,1,2,2-Tetrachloroethane	<0.006	<0.006	<0.006	<960	<1,400	<0.91	<0.72	<0.006	<0.66	<0.63	<0.63
Toluene	<0.013	<0.012	<0.013	<1,900	<29,000	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
Chlorobenzene	<0.001	<0.001	0.003	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13

NOTES: Concentrations reported in mg/kg (ppm).
<1 - Compound not detected. "1" identifies the detection limit.
Compound is detected.
*** - These 3 compounds coelute using a SP1000 column.
One of these 3 was detected at a concentration of 2 ppb.
NA - Not Analyzed.
B - Detected in Blank.

TABLE 1

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NEW YORK

SOIL ORGANIC DATA

	(FLD DUP)					(FLD DUP)					COMP.
	B-15	B-16	B-16	B-17	B-17	B-18	B-18	B-18	B-19	B-19	B-20
DEPTH	6-8'	2-4'	10-14'	3-9'	9-11'	6-8'	6-8'	12-14'	8-10'	18-20'	0.5-13'
DATE COLLECTED	2/3/92	2/3/92	2/3/92	2/5/92	2/5/92	2/7/92	2/7/92	2/7/92	1/30/92	1/30/92	2/6/92
Ethylbenzene	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Xylene (total)	<0.001	<0.001	0.004	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
1,2-Dichloroethylene (total)	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	0.24
Dichloromethane	<0.001	<0.001	0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
1,2-Dichloropropane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Cis-1,3-Dichloropropylene	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Trans-1,3-Dichloropropylene	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Ethylbenzene	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	0.15	<0.13	<0.13
1,1,2,2-Tetrachloroethane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
1,1,1,2-Tetrachloroethane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Tetrachloroethylene	<0.001	<0.001	0.003	5,200	6,000	0.78	0.14	0.002	<0.13	0.22	2.1
Toluene	0.001	<0.001	<0.001	<190	<290	1.6	1.9	<0.001	13	<0.13	4.3
1,1,1-Trichloroethane	<0.001	<0.001	0.005	1,100	2,200	<0.18	<0.14	<0.001	<0.13	0.18	0.55
1,1,2-Trichloroethane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Trichloroethylene	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	3.4
Trichlorofluoropropane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
1,2,3-Trichloropropane	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Vinyl Chloride	<0.001	<0.001	<0.001	<190	<290	<0.18	<0.14	<0.001	<0.13	<0.13	<0.13
Xylene (total)	<0.004	<0.004	<0.004	<580	<860	<0.55	<0.43	<0.003	0.92	<0.38	<0.38
Acetone	0.14	<0.12	<0.13	<19,000	<29,000	<18	<14	<0.11	<13	<13	<13
Methylethyl Ketone	<0.068	<0.059	<0.063	<9,600	<14,000	<9.1	<7.2	<0.056	<6.6	<6.3	<6.3
Methylisobutyl Ketone	<0.013	<0.012	<0.013	<1,900	<2,900	<1.8	<1.4	<0.011	<1.3	<1.3	<1.3
Total Petroleum Hydrocarbons	<100	610	<100	13,000	2,400	<100	<100	<100	<100	<100	170

NOTES: Concentrations reported in mg/kg (ppm).
<1 - Compound not detected. "1" identifies the detection limit.
Compound is detected.
*** - These 3 compounds coelute using a SP1000 column.
One of these 3 was detected at a concentration of 2 ppb.
NA - Not Analyzed.
B - Detected in Blank.

TABLE 1

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NEW YORK

SOIL ORGANIC DATA

	B-21	B-21	B-22	B-22	B-23	B-23
DEPTH	6-8'	10-12'	4-6'	12-14'	4-6'	6-10'
DATE COLLECTED	2/4/92	2/4/92	2/4/92	2/4/92	2/7/92	2/7/92
Chloromethane	<0.13	<0.001	NA	NA	NA	NA
Bromomethane	<1.3	<0.013	NA	NA	NA	NA
Vinyl Chloride	<67	<0.67	NA	NA	NA	NA
Chloroethane	<0.67	<0.007	NA	NA	NA	NA
Methylene Chloride	<0.13	<0.001	NA	NA	NA	NA
1,1-Dichloroethene	<1.3	<0.013	NA	NA	NA	NA
1,1-Dichloroethane	<1.3	<0.013	NA	NA	NA	NA
1,2-Dichloroethene (total)	<0.13	<0.001	NA	NA	NA	NA
Chloroform	<0.13	<0.001	NA	NA	NA	NA
1,2-Dichloroethane	<0.13	<0.001	NA	NA	NA	NA
1,1,1-Trichloroethane	<1.3	<0.013	NA	NA	NA	NA
Carbon Tetrachloride	<0.13	<0.001	NA	NA	NA	NA
Bromodichloromethane	<1.3	<0.013	NA	NA	NA	NA
1,2-Dichloropropane	<1.3	<0.013	NA	NA	NA	NA
cis-1,3-Dichloropropene	<13	<0.13	NA	NA	NA	NA
Trichloroethene	<0.67	<0.007	NA	NA	NA	NA
Dibromochloromethane	<0.67	<0.007	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.13	<0.001	NA	NA	NA	NA
Benzene	<1.3	<0.013	NA	NA	NA	NA
Trans-1,3-Dichloropropene	<0.67	<0.007	NA	NA	NA	NA
Tetrachloroethene	<0.67	<0.007	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	<0.67	<0.007	NA	NA	NA	NA
Toluene	<1.3	<0.013	NA	NA	NA	NA
Chlorobenzene	<0.13	<0.001	NA	NA	NA	NA

NOTES: Concentrations reported in mg/kg (ppm).
<1 - Compound not detected. "1" identifies the detection limit.
Compound is detected.
*** - These 3 compounds coelute using a SP1000 column.
One of these 3 was detected at a concentration of 2 ppb.
NA - Not Analyzed.
B - Detected in Blank.

PGB:kjf/ITT011.2

TABLE 1

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NEW YORK

SOIL ORGANIC DATA

	B-21	B-21	B-22	B-22	B-23	B-23
DEPTH	6-8'	10-12'	4-6'	12-14'	4-6'	6-10'
DATE COLLECTED	2/4/92	2/4/92	2/4/92	2/4/92	2/7/92	2/7/92
Ethylbenzene	<0.13	<0.001	NA	NA	NA	NA
Xylene (total)	<0.13	<0.001	NA	NA	NA	NA
1,2-Dichloroethylene (total)	<0.13	<0.001	NA	NA	NA	NA
Dichloromethane	<0.13	<0.001	NA	NA	NA	NA
1,2-Dichloropropane	<0.13	<0.001	NA	NA	NA	NA
Cis-1,3-Dichloropropylene	<0.13	<0.001	NA	NA	NA	NA
Trans-1,3-Dichloropropylene	<0.13	<0.001	NA	NA	NA	NA
Ethylbenzene	<0.13	<0.001	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	<0.13	<0.001	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	<0.13	<0.001	NA	NA	NA	NA
Tetrachloroethylene	<0.13	<0.001	NA	NA	NA	NA
Toluene	<0.13	<0.001	NA	NA	NA	NA
1,1,1-Trichloroethane	<0.13	<0.001	NA	NA	NA	NA
1,1,2-Trichloroethane	<0.13	<0.001	NA	NA	NA	NA
Trichloroethylene	<0.13	<0.001	NA	NA	NA	NA
Trichlorofluoropropane	<0.13	<0.001	NA	NA	NA	NA
1,2,3-Trichloropropane	<0.13	<0.001	NA	NA	NA	NA
Vinyl Chloride	<0.13	<0.001	NA	NA	NA	NA
Xylene (total)	<0.4	<0.004	NA	NA	NA	NA
Acetone	<13	<0.13	NA	NA	NA	NA
Methylethyl Ketone	<6.7	<0.067	NA	NA	NA	NA
Methylisobutyl Ketone	<1.3	<0.013	NA	NA	NA	NA
Total Petroleum Hydrocarbons	1,600	<100	23,000	13,000	460	300

NOTES: Concentrations reported in mg/kg (ppm).
<1 - Compound not detected. "1" identifies the detection limit.
Compound is detected.
*** - These 3 compounds coelute using a SP1000 column.
One of these 3 was detected at a concentration of 2 ppb.
NA - Not Analyzed.
B - Detected in Blank.

PGB:kjf/ITT011.2

TABLE 2

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SOIL INORGANIC DATA

	NYS RANGE	DEPTH / DATE COLLECTED	B-11 6-8' 1/28/92	B-11 10-12' 1/28/92	B-12 6-8' 1/27/92	B-12 10-14' 1/27/92	B-13 4-8' 1/28/92	FIELD DUP B-13 4-8' 1/28/92	B-13 10-12' 1/28/92	B-14 6-8' 1/31/92	B-14 16-18' 1/31/92
Aluminum	1,000-25,000		11,900	17,600	18,200	22,800	13,200	10,300	6,780	29,400	10,100
Antimony	NE		6 B	10.8 B	4 B	6.6 B	4.1 B	3.7 U	3.6 U	4.3 U	8.2 B
Arsenic	3-12		0.54 B	1.2 B	2.4 B	1.4 B	2.8	1.7 B	3.5	0.65 B	0.69 B
Barium	15-600		186	157	112	195	104	68.3	72.1	156	113
Beryllium	0-1.75		0.25 U	0.26 U	0.82 B	0.9 B	0.25 U	0.27 U	0.26 U	1.2 B	0.27 U
Cadmium	0.01-0.88		0.49 U	0.51 U	0.5 U	0.54 U	0.51 U	0.53 U	0.52 U	0.62 U	0.53 U
Calcium	130-35,000		2,160	14,200	11,400	14,100	3,350	2,980	3,440	2,770	3,500
Chromium	1.5-40		18.9	38	23.6	42.2	19.3	25.1	10.9	53.8	25.2
Cobalt	2.5-60		11.1 B	18.1	12.7	20.5	9.1 B	10.5 B	6 B	12 B	11.7 B
Copper	37.4-112.2		4.9 B	31.5	77.7	36	7.7	20.2	7.9	796	23.4
Iron	17,500-25,000		10,600	30,800	22,100	36,300	12,300	15,800	7,760	18,400	19,700
Lead	1-12.5		4	7.3	16.8	9.1	7.1	7.3	10.1	26.5	4.5
Magnesium	1,700-6,000		3,170	13,600	8,530	14,100	2,480	5,000	1,610	4,550	5,410
Manganese	50-5,000		138	644	392	663	312	182	194	186	415
Mercury	0.042-0.066		0.12 U	0.13 U	0.12 U	0.14 U	0.13 U	0.13 U	0.18	0.18	0.13 U
Nickel	8.5-25		10.5	29.1	15.5	31.2	8.9 B	15.4	4.8 B	121	18.5
Potassium	8,500-43,000		389 B	6,150	1,430	7,270	349 B	1,560	164 U	680 B	3,820
Selenium	<0.1-0.125		0.74 U	0.77 U	0.75 U	0.81 U	0.76 U	0.8 U	0.78 U	0.92 U	8 U
Silver	NE		0.74 U	0.87 B	0.75 U	0.81 U	0.76 U	0.8 U	0.78 U	13.4	0.8 U
Sodium	6,000-8,000		325 B	459 B	750 B	498 B	335 B	343 B	315 B	447 B	365 B
Thallium	NE		0.25 U	0.26 U	0.25 U	0.28 B	0.25 U	0.27 U	0.26 U	0.31 U	0.27 U
Vanadium	25-60		22	54.1	57.6	60.9	23.3	36.4	12.9 B	43.9	32.9
Zinc	37-60		55.8	74.9	73	86.8	47.4	59.4	33.2	148	48.4

NOTES: NYS concentration range in uncontaminated soils from background concentrations of 20 elements in soils with special regard for New York State by E. Carol McGovern.
All values reported in mg/kg (ppm).
U – Analyzed for but not detected.
NE – Not established
B – Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit

PGB:kjf/ITT011.11

TABLE 2

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SOIL INORGANIC DATA

					FIELD DUP					
			B-15	B-15	B-15	B-16	B-16	B-17	B-17	B-18
		DEPTH	0.5-2'	6-8'	6-8'	2-4'	10-14'	3-9'	9-11'	6-8'
	NYS RANGE	DATE COLLECTED	2/3/92	2/3/92	2/3/92	2/3/92	2/3/92	2/5/92	2/5/92	2/7/92
Aluminum	1,000-25,000		15,600	16,900	14,100	15,600	13,000	16,900	21,900	24,600
Antimony	NE		11.8 B	7.7 B	6.1 B	11.1 B	11.6 B	7.3 B	8 U	9.7 B
Arsenic	3-12		1.5 B	1.6 B	1.5 B	1.6 B	0.6 B	2.6 B	3.9 B	0.73 U
Barium	15-600		125	101	96.9	112	121	128	153	186
Beryllium	0-1.75		0.24 U	0.27 U	0.26 U	0.24 U	0.25 U	0.36 U	0.57 U	0.36 U
Cadmium	0.01-0.88		0.49 U	0.54 U	0.51 U	0.47 U	0.5 U	0.73 U	1.1 U	0.73 U
Calcium	130-35,000		5,220	2,190	1,570	6,750	15,800	3,240	7,920	3,550
Chromium	1.5-40		31.5	25.7	20.4	29.5	31.5	24.6	36.2	33.4
Cobalt	2.5-60		13.8	11.4 B	9 B	12.4	13.8	15 B	19.4 B	11 B
Copper	37.4-112.2		44.7	19.5	7.4	31.4	29.8	57.2	35	13.1
Iron	17,500-25,000		26,200	17,400	12,500	23,100	24,600	21,700	26,200	14,600
Lead	1-12.5		25	96.8	15.5	28.1	5.8	77.7	23.1	8.9
Magnesium	1,700-6,000		7,330	3,790	2,920	7,620	12,100	3,920	7,940	3,770
Manganese	50-5,000		385	175	148	417	376	288	353	162
Mercury	0.042-0.066		0.14	0.14 U	0.13 U	0.12 U	0.12 U	0.18 U	0.29 U	0.18 U
Nickel	8.5-25		32.4	18.6	11.4	26.3	22.7	23.1	25.2	18.2
Potassium	8,500-43,000		4,450	1,650	484 B	3,770	4,510	1,560 B	2,790 B	633 B
Selenium	<0.1-0.125		0.73 U	0.81 U	0.77 U	0.71 U	0.75 U	1.1 U	1.7 U	1.1 U
Silver	NE		1.1 B	0.81 U	0.77 U	1.1 B	1.3 B	1.1 U	1.7 U	1.1 U
Sodium	6,000-8,000		553 B	425 B	313 B	417 B	582 B	372 B	611 B	826 B
Thallium	NE		0.24 U	0.27 U	0.26 U	0.24 U	0.26 B	0.36 U	0.57 U	0.36 U
Vanadium	25-60		47.8	41.9	26.4	43.9	47.6	36.6	50.8	35.6
Zinc	37-60		78.7	55.6	49.4	67.8	63.6	142	107	83.2

NOTES: NYS concentration range in uncontaminated soils from background concentrations of 20 elements in soils with special regard for New York State by E. Carol McGovern.
All values reported in mg/kg (ppm).
U - Analyzed for but not detected.
NE - Not established
B - Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit

PGB:kjf/ITT011.11

TABLE 2

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SOIL INORGANIC DATA

	NYS RANGE	DEPTH / DATE COLLECTED	FIELD DUP B-18 6-8' 2/7/92	B-18 12-14' 2/7/92	B-19 8-10' 1/30/92	B-19 18-20' 1/30/92	B-20 0.5-13' 2/6/92	B-21 6-8' 2/4/92	B-21 10-12' 2/4/92
Aluminum	1,000-25,000		4,450	17,800	10,200	7,490	11,700	13,400	26,100
Antimony	NE		6.3 B	9.9 B	4.3 B	5.2 B	9.8 B	3.7 U	13.1 B
Arsenic	3-12		0.45 U	0.58 U	1.4 B	0.51 U	13	0.85 B	0.59 B
Barium	15-600		23.6 B	134	57.3	84.9	119	104	262
Beryllium	0-1.75		0.22 U	0.29 U	0.26 U	0.25 U	0.25 U	0.27 U	0.76 B
Cadmium	0.01-0.88		0.45 U	0.58 U	0.53 U	0.51 U	0.51 U	0.53 U	0.53 U
Calcium	130-35,000		1,480	2,980	2,700	8,210	1,730	2,350	4,420
Chromium	1.5-40		6.8	24.7	21.1	18.8	24.6	18.7	53.6
Cobalt	2.5-60		3.4 B	9.2 B	9.2 B	9.3 B	17	8.2 B	22.9
Copper	37.4-112.2		3.9 B	10.5	15.8	19.1	34.5	7.9	38.1
Iron	17,500-25,000		6,780	12,300	14,800	15,500	21,800	9,970	37,100
Lead	1-12.5		2	6.3	4.3	3.4	21	10.6	8
Magnesium	1,700-6,000		1,930	2,970	4,500	7,230	5,270	2,530	12,500
Manganese	50-5,000		70	133	189	203	305	129	499
Mercury	0.042-0.066		0.11 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Nickel	8.5-25		5.6 B	13.6	12	11.6	24.6	11.7	37.7
Potassium	8,500-43,000		617 B	492 B	806 B	2,770	5,670	542 B	8,950
Selenium	<0.1-0.125		0.67 U	0.87 U	0.79 U	0.76 U	0.76 U	0.8 U	0.8 U
Silver	NE		0.67 U	0.87 U	0.79 U	0.76 U	0.9 B	0.8 U	1.3 B
Sodium	6,000-8,000		287 B	641 B	480 B	323 B	429 B	334 B	645 B
Thallium	NE		0.22 U	0.29 U	0.26 U	0.26 B	2.5 U	0.27 U	0.27 U
Vanadium	25-60		9.1 B	30.2	30.2	25.8	40.5	24.3	79.6
Zinc	37-60		20.8	66.4	58.4	36.9	72.2	50.2	102

NOTES:
NYS concentration range in uncontaminated soils from background concentrations of 20 elements in soils with special regard for New York State by E. Carol McGovern.
All values reported in mg/kg (ppm).
U - Analyzed for but not detected.
NE - Not established
B - Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit

TABLE 3

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SOIL ORGANIC DATA
(SUPERFUND ANALYSES)

	B-12	B-15	B-17
DEPTH	8-10'	2-6'	11-15'
DATE COLLECTED	1/27/92	2/03/92	2/05/92
Chloromethane	1.6 U	0.022 U	6.3 U
Bromomethane	1.6 U	0.022 U	6.3 U
Vinyl Chloride	1.6 U	0.022 U	6.3 U
Chloroethane	1.6 U	0.022 U	6.3 U
Methylene Chloride	0.13 BJ	0.003 BJ	0.94 BJ
Acetone	1.6 U	0.064 B	74
Carbon Disulfide	0.79 U	0.011 U	3.2 U
1,1-Dichloroethene	0.79 U	0.011 U	3.2 U
1,1-Dichloroethane	0.79 U	0.002 J	1.8 J
1,2-Dichloroethene (total)	0.2 J	0.011 U	2.7 J
Chloroform	0.79 U	0.011 U	3.2 U
1,2-Dichloroethane	0.79 U	0.011 U	3.2 U
2-Butanone	1.6 U	0.022 U	18
1,1,1-Trichloroethane	0.15 J	0.001 J	4.7
Carbon Tetrachloride	0.79 U	0.011 U	3.2 U
Bromodichloromethane	0.79 U	0.011 U	3.2 U
1,2-Dichloropropane	0.79 U	0.011 U	3.2 U
cis-1,3-Dichloropropene	0.79 U	0.011 U	3.2 U
Trichloroethene	1.4	0.011 U	3.2 U
Benzene	0.79 U	0.011 U	3.2 U
Dibromochloromethane	0.79 U	0.011 U	3.2 U
trans-1,3-Dichloropropene	0.79 U	0.011 U	3.2 U
1,1,2-Trichloroethane	0.79 U	0.011 U	3.2 U
Bromoform	0.79 U	0.011 U	3.2 U
4-Methyl-2-pentanone	1.6 U	0.022 U	6.3 U
2-Hexanone	1.6 U	0.022 U	6.3 U
Tetrachloroethene	0.12 J	0.011 J	7.2
1,1,2,2-Tetrachloroethane	0.79 U	0.011 U	3.2 U
Toluene	0.79 U	0.004 J	3.2 U
Chlorobenzene	0.79 U	0.011 U	3.2 U
Ethylbenzene	0.79 U	0.011 U	3.2 U
Styrene	0.79 U	0.011 U	3.2 U
Xylene (total)	0.27 J	0.011 U	3.2 U

Surface soil data reported in mg/kg (ppm).
U - Analyzed for but not detected
Compound is detected.
J - Indicates an estimated value
B - Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit

PGB:kjf/ITT011.7

TABLE 4

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SOIL INORGANIC DATA
(SUPERFUND ANALYSES)

	NYS RANGE	B-12		B-15		B-17	
DEPTH		8-10'		2-6'		11-15'	
DATE COLLECTED		1/27/92		2/03/92		2/05/92	
Aluminum	1,000-25,000	8,610		16,700		16,100	
Antimony	NE	3.5	U	8.5	B	9.1	B
Arsenic	3-12	3.4		4.7		1.1	B
Barium	15-600	62.8		94.1		149	
Beryllium	0-1.75	0.25	U	0.84	B	0.27	U
Cadmium	0.01-0.88	0.5	U	0.67	U	0.8	U
Calcium	130-35,000	2,210		2,010		14,800	
Chromium	1.5-40	19.5		56		35.1	
Cobalt	2.5-60	9	B	9.5	B	15.8	
Copper	37.4-112.2	14.3		155		27.5	
Iron	17,500-25,000	16,600		22,600		28,900	
Lead	1-12.5	6.6		27.7		6.9	
Magnesium	1,700-6,000	4,290		4,060		13,200	
Manganese	50-5,000	152		363		588	
Mercury	0.042-0.066	0.12	U	0.11	U	0.13	U
Nickel	8.5-25	13		21.3		23.1	
Potassium	8,500-43,000	1,330		1,730		5,590	
Selenium	<0.1-0.125	0.75	U	6.7	U	8	U
Silver	NE	0.75	U	1.4	B	0.8	U
Sodium	6,000-8,000	308	B	364	B	562	B
Thallium	NE	0.25	U	0.22	U	1.3	U
Vanadium	25-60	24.2		33.6		48.6	
Zinc	37-60	51.4		69.9		71.2	

NOTES:
NYS concentration range in uncontaminated soils from background concentrations of 20 elements in soils with special regard for New York State by E. Carol McGovern.
All values reported in mg/kg (ppm).
U - Analyzed for but not detected
B - Value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
NE - Not established

PGB:kjf/ITT011.10

TABLE 5

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SOIL SEMIVOLATILE ORGANIC DATA
(SUPERFUND ANALYSES)

	B-12	B-15	B-17
DEPTH	8-10'	2-6'	11-15'
DATE COLLECTED	1/27/92	2/03/92	2/05/92
Phenol	4.2 U	3.7 U	0.44 U
bis(2-Chloroethyl)ether	4.2 U	3.7 U	0.44 U
2-Chlorophenol	4.2 U	3.7 U	0.44 U
1,3-Dichlorobenzene	4.2 U	3.7 U	0.44 U
1,4-Dichlorobenzene	4.2 U	3.7 U	0.44 U
Benzyl Alcohol	4.2 U	3.7 U	0.44 U
1,2-Dichlorobenzene	4.2 U	3.7 U	0.44 U
2-Methylphenol	4.2 U	3.7 U	0.44 U
bis(2-Chloroisopropyl)ether	4.2 U	3.7 U	0.44 U
4-Methylphenol	4.2 U	3.7 U	0.44 U
N-Nitro-Di-n-propylamine	4.2 U	3.7 U	0.44 U
Hexachloroethane	4.2 U	3.7 U	0.44 U
Nitrobenzene	4.2 U	3.7 U	0.44 U
Isophorone	4.2 U	3.7 U	0.44 U
2-Nitrophenol	4.2 U	3.7 U	0.44 U
2,4-Dimethylphenol	4.2 U	3.7 U	0.44 U
Benzoic acid	21 U	19 U	2.2 U
bis(2-Chloroethoxy)methane	4.2 U	3.7 U	0.44 U
2,4-Dichlorophenol	4.2 U	3.7 U	0.44 U
1,2,4-Trichlorobenzene	4.2 U	3.7 U	0.44 U
Naphthalene	4.2 U	3.7 U	0.44 U
4-Chloroaniline	4.2 U	3.7 U	0.44 U
Hexachlorobutadiene	4.2 U	3.7 U	0.44 U
4-Chloro-3-methylphenol	4.2 U	3.7 U	0.44 U
2-Methylnaphthalene	4.2 U	3.7 U	0.44 U
Hexachlorocyclopentadiene	4.2 U	3.7 U	0.44 U
2,4,6-Trichlorophenol	4.2 U	3.7 U	0.44 U
2,4,5-Trichlorophenol	21 U	19 U	2.2 U
2-Chloronaphthalene	4.2 U	3.7 U	0.44 U
2-Nitroaniline	21 U	19 U	2.2 U
Dimethylphthalate	4.2 U	3.7 U	0.44 U
Acenaphthylene	4.2 U	3.7 U	0.44 U
2,6-Dinitrotoluene	4.2 U	3.7 U	0.44 U

NOTES: Surface soil data reported in mg/kg (ppm).
U - Analyzed for but not detected
[ ] Compound is detected.
J - Indicates an estimated value
B - Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit

TABLE 5

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SOIL SEMIVOLATILE ORGANIC DATA
(SUPERFUND ANALYSES)

	B-12	B-15	B-17
DEPTH	8-10'	2-6'	11-15'
DATE COLLECTED	1/27/92	2/03/92	2/05/92
3-Nitroaniline	21 U	19 U	2.2 U
Acenaphthene	4.2 U	3.7 U	0.44 U
2,4-Dinitrophenol	21 U	19 U	2.2 U
4-Nitrophenol	21 U	19 U	2.2 U
Dibenzofuran	4.2 U	3.7 U	0.44 U
2,4-Dinitrotoluene	4.2 U	3.7 U	0.44 U
Diethylphthalate	4.2 U	3.7 U	0.36 J
4-Chlorophenyl-phenylether	4.2 U	3.7 U	0.44 U
Fluorene	4.2 U	3.7 U	0.44 U
4-Nitroaniline	21 U	19 U	2.2 U
4,6-Dinitro-2-methylphenol	21 U	19 U	2.2 U
N-Nitrosodiphenylamine (1)	4.2 U	3.7 U	0.44 U
4-Bromophenyl-phenylether	4.2 U	3.7 U	0.44 U
Hexachlorobenzene	4.2 U	3.7 U	0.44 U
Pentachlorophenol	21 U	19 U	2.2 U
Phenathrene	4.2 U	3 J	0.44 U
Anthracene	4.2 U	0.63 J	0.44 U
Di-n-butylphthalate	4.2 U	3.7 U	0.087 J
Fluoranthene	4.2 U	8	0.44 U
Pyrene	4.2 U	6.2	0.44 U
Butylbenzylphthalate	4.2 U	3.7 U	0.44 U
3,3'-Dichlorobenzidine	8.4 U	7.4 U	0.88 U
Benzo(a)anthracene	4.2 U	3.8	0.44 U
Chrysene	4.2 U	3.9	0.44 U
bis(2-Ethylhexyl)phthalate	1.4 J	0.78 J	0.86
Di-n-octylphthalate	4.2 U	3.7 U	0.44 U
Benzo(b)fluoranthene	4.2 U	5.7	0.44 U
Benzo(k)fluoranthene	4.2 U	2.3 J	0.44 U
Benzo(a)pyrene	4.2 U	4	0.44 U
Indeno(1,2,3-cd)pyrene	4.2 U	2.6 J	0.44 U
Dibenzo(a,h)anthracene	4.2 U	3.7 U	0.44 U
Benzo(g,h,i)perylene	4.2 U	3.7 U	0.44 U

NOTES: Surface soil data reported in mg/kg (ppm).
U - Analyzed for but not detected
Compound is detected.
J - Indicates an estimated value
B - Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit

PGB:kjf/ITT011.9

TABLE 6

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SOIL PCB & PESTICIDE DATA
(SUPERFUND ANALYSES)

	B-12		B-15		B-17	
DEPTH	8-10'		2-6'		11-15'	
DATE COLLECTED	1/27/92		2/03/92		2/05/92	
Alpha-BHC	0.051	U	0.089	U	0.0053	U
Beta-BHC	0.051	U	0.089	U	0.0053	U
Delta-BHC	0.051	U	0.089	U	0.0053	U
Gamma-BHC	0.051	U	0.089	U	0.0053	U
Heptachlor	0.051	U	0.089	U	0.0053	U
Aldrin	0.051	U	0.089	U	0.0053	U
Heptachlor Epoxide	0.051	U	0.089	U	0.0053	U
Endosulfan I	0.051	U	0.089	U	0.0053	U
Dieldrin	0.1	U	0.18	U	0.011	U
4-4-DDE	0.1	U	0.18	U	0.011	U
Endrin	0.1	U	0.18	U	0.011	U
Endosulfan II	0.1	U	0.18	U	0.011	U
4-4-DDD	0.1	U	0.18	U	0.011	U
Endosulfan Sulfate	0.1	U	0.18	U	0.011	U
4-4-DDT	0.1	U	0.18	U	0.011	U
Methoxychlor	0.51	U	0.89	U	0.053	U
Endrin Ketone	0.1	U	0.18	U	0.011	U
Alpha Chlordane	0.51	U	0.89	U	0.053	U
Gamma Chlordane	0.51	U	0.89	U	0.053	U
Toxaphene	1	U	1.8	U	0.11	U
Aroclor-1016	0.51	U	0.89	U	0.053	U
Aroclor-1221	0.51	U	0.89	U	0.053	U
Aroclor-1232	0.51	U	0.89	U	0.053	U
Aroclor-1242	0.51	U	0.89	U	0.053	U
Aroclor-1248	0.51	U	0.89	U	0.053	U
Aroclor-1254	0.94	J	1.8	U	0.11	U
Aroclor-1260	1	U	1.8	U	0.11	U

Surface soil data reported in mg/kg (ppm).
U - Analyzed for but not detected
Compound is detected.
J - Indicates an estimated value

PGB:kjf/ITT011.8

29-Jun-92

TABLE 7

ITT SEALECTRO
MAMARONECK, NY

MONITORING WELL SPECIFICATIONS AND GROUND WATER ELEVATIONS

WELL NO.	WELL DEPTH (FT)	GROUND ELEVATION (FT)	PVC ELEVATION (FT)	HYDRAULIC CONDUCTIVITY (CM/SEC)	SCREENED INTERVAL (FT)	GROUND WATER ELEVATIONS (FT) 2/19/92	4/15/92	4/23/92	6/03/92	6/08/92
MW-2	13.5	196.9	196.68	3.6E-04	13.7 - 3.7	191.51	190.94	189.93	190.93	191.63
MW-2D	42.5	197.1	199.40	1.0E-04	42.0 - 32.0	191.82	191.55	191.72	191.75	192.35
MW-3	14.0	197.6	197.45	6.3E-04	14.0 - 4.0	190.70	190.67	190.38	190.47	191.10
MW-3D	29.0	198.0	199.95	1.7E-03	28.0 - 18.0	191.57	191.53	191.58	191.60	192.15
MW-4	14.0	197.2	196.86	2.1E-03	14.0 - 4.0	191.80	191.80	191.63	-------	-------
MW-4D	41.0	197.2	196.90	8.7E-04	40.5 - 30.5	191.80	191.76	191.60	-------	-------
WELL 5	20.0	197.7	198.18	NA	20.0 - 10.0	**	**	**	**	**
MW-8	15.0	197.9	197.83	NA	14.5 - 4.5	*	*	*	*	*
RW-1	14.0	197.8	199.41	NA	14.0 - 4.0	**	**	**	**	**
SWB-1	NA	196.32	NA	NA	NA	NA	NA	NA	190.32	189.97

NOTES:	
*	No water level taken due to free product in well.
**	Recovery well in operation
NA	Not available
SWB	Surface Water Benchmark
-------	Water levels not taken

From assumed datum of 200 ft., south east nut of fire hydrant.

DEB:cmb/ITT011.1

TABLE 8

ITT SEALECTRO
MAMARONECK, NY

GROUND WATER ORGANIC DATA

	NYSMCL	NYS CLASS GA STANDARDS	DATE COLLECTED	MW-2 2/19/92	MW-2 4/15/92	MW-2D 2/19/92	FIELD DUP MW-2D 2/19/92	MW-2D 4/15/92	MW-3 2/19/92	MW-3DL 2/19/92
Chloromethane	5	NE		10 U	1 U	10 U	10 U	1 U	10 U	10 U
Bromomethane	5	5		10 U	1 U	10 U	10 U	1 U	10 U	10 U
Vinyl Chloride	2	2		10 U	130	10 U	10 U	1 U	10 U	10 U
Chloroethane	5	5		10 U	1 U	10 U	10 U	1 U	10 U	10 U
Methylene Chloride	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
1,1-Dichloroethene	5	5		5 U	1 U	5 U	5 U	1 U	410	290
1,1-Dichloroethane	5	5		22	60	6	6	1 U	220	150
1,2-Dichloroethene (total)	10	5		19	1 U	22	24	1 U	34	24
Chloroform	NE	100		5 U	1 U	5 U	5 U	1 U	1 J	5 U
1,2-Dichloroethane	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
1,1,1-Trichloroethane	5	5		5 U	1 U	22	27	1 U	530	340
Carbon Tetrachloride	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
Bromodichloromethane	NE	50 **		5 U	1 U	5 U	5 U	1 U	5 U	5 U
1,2-Dichloropropane	5	5 **		5 U	1 U	5 U	5 U	1 U	5 U	5 U
cis-1,3-Dichloropropene	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
Trichloroethene	5	5		5 U	1 U	18	20	25	28	20
Dibromochloromethane	NE	50		5 U	1 U	5 U	5 U	1 U	5 U	5 U
1,1,2-Trichloroethane	5	5		5 U	1 U	5 U	5 U	1 U	10	5 U
Benzene	5	5		5 U	1 U	5 U	5	1 U	5 U	5 U
Trans-1,3-Dichloropropene	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
Tetrachloroethene	5	5		5 U	1 U	24	28	1 U	6	6
1,1,2,2-Tetrachloroethane	5	5		5 U	1 U	5 U	5 U	28	5 U	5 U
Toluene	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
Chlorobenzene	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
Ethylbenzene	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
Xylene (total)	5	5		5 U	1 U	5 U	5 U	1 U	5 U	5 U
Total Petroleum Hydrocarbon (mg/kg)	NE	NE		11.1	<1	11.0	10.9	<1	11.3	NA

NOTES:
- All values reported in µg/L (ppb), unless otherwise noted.
- Compound is detected.
- U – Analyzed for but not detected.
- J – Indicates an estimated value.
- ** – NYS Class GA Guidance Value
- 2/92 samples analyzed using GC/MS method (8240).
- 4/92 samples analyzed using GC/MS methods (8010/8020)
- NE – Not established

PGB:kjf/ITT011.3

TABLE 8

ITT SEALECTRO
MAMARONECK, NY

GROUND WATER ORGANIC DATA

	NYSMCL	NYS CLASS GA STANDARDS	DATE COLLECTED	MW-3 4/15/92	MW-3D 2/19/92	MW-3DDL 2/19/92	MW-3D 4/15/92	FIELD DUP MW-3D 4/15/92	MW-4 2/20/92	MW-4 4/15/92
Chloromethane	5	NE		1 U	10 U	10 U	1 U	1 U	10 U	1 U
Bromomethane	5	5		1 U	10 U	10 U	1 U	1 U	10 U	1 U
Vinyl Chloride	2	2		1 U	10 U	10 U	1 U	1 U	9 J	1 U
Chloroethane	5	5		1 U	10 U	10 U	1 U	1 U	10 U	1 U
Methylene Chloride	5	5		1 U	5 U	5 U	1 U	1.2	5 U	1 U
1,1-Dichloroethene	5	5		200	19	9	71	81	5 U	1 U
1,1-Dichloroethane	5	5		150	16	5 U	1 U	29	5 U	1 U
1,2-Dichloroethene (total)	10	5		5.9	13	6	1 U	1 U	74	1 U
Chloroform	NE	100		1 U	5 U	5 U	1 U	1 U	5 U	1 U
1,2-Dichloroethane	5	5		17	5 U	5 U	1 U	1 U	5 U	1 U
1,1,1-Trichloroethane	5	5		90	330	220	57	65	5 U	1 U
Carbon Tetrachloride	5	5		1 U	5 U	5 U	1 U	1 U	5 U	1 U
Bromodichloromethane	NE	50 **		1 U	5 U	5 U	1 U	1 U	5 U	1 U
1,2-Dichloropropane	5	5 **		1 U	5 U	5 U	1 U	1 U	5 U	1 U
cis-1,3-Dichloropropene	5	5		1 U	5 U	5 U	1 U	1 U	5 U	1 U
Trichloroethene	5	5		41	9	5	17	17	2 J	38
Dibromochloromethane	NE	50		1 U	5 U	5 U	1 U	1 U	5 U	1 U
1,1,2-Trichloroethane	5	5		1 U	5 U	5 U	2.4	1 U	5 U	1 U
Benzene	5	5		1 U	5 U	5 U	1 U	1 U	5 U	1 U
Trans-1,3-Dichloropropene	5	5		1 U	5 U	5 U	1 U	1 U	5 U	1 U
Tetrachloroethene	5	5		1 U	420	320	190	190	5 U	1 U
1,1,2,2-Tetrachloroethane	5	5		1 U	5 U	5 U	1 U	1 U	5 U	1 U
Toluene	5	5		1 U	5 U	5 U	1 U	1 U	5 U	1 U
Chlorobenzene	5	5		1 U	5 U	5 U	1 U	1 U	5 U	1 U
Ethylbenzene	5	5		1 U	5 U	5 U	1 U	1 U	5 U	1 U
Xylene (total)	5	5		1 U	5 U	5 U	1 U	9.1	5 U	1 U
Total Petroleum Hydrocarbon (mg/kg)	NE	NE		<1	12.0	NA	<1	<1	11.4	<1

NOTES: All values reported in µg/L (ppb), unless otherwise noted.
Compound is detected.
U – Analyzed for but not detected.
J – Indicates an estimated value.
** – NYS Class GA Guidance Value
2/92 samples analyzed using GC/MS method (8240).
4/92 samples analyzed using GC/MS methods (8010/8020).
NE – Not established

PGB:kjf/ITT011.3

TABLE 8

ITT SEALECTRO
MAMARONECK, NY

GROUND WATER ORGANIC DATA

	NYSMCL	NYS CLASS GA STANDARDS		DATE COLLECTED	MW-4D 2/20/92		MW-4D 4/15/92	
Chloromethane	5	NE			10	U	1	U
Bromomethane	5	5			10	U	1	U
Vinyl Chloride	2	2			10	U	1	U
Chloroethane	5	5			10	U	1	U
Methylene Chloride	5	5			5	U	1	U
1,1-Dichloroethene	5	5			5	U	1	U
1,1-Dichloroethane	5	5			5	U	1	U
1,2-Dichloroethene (total)	10	5			5	U	1	U
Chloroform	NE	100			5	U	1	U
1,2-Dichloroethane	5	5			5	U	1	U
1,1,1-Trichloroethane	5	5			5	U	1	U
Carbon Tetrachloride	5	5			5	U	1	U
Bromodichloromethane	NE	50	**		5	U	1	U
1,2-Dichloropropane	5	5	**		5	U	1	U
cis-1,3-Dichloropropene	5	5			5	U	1	U
Trichloroethene	5	5			5	U	1	U
Dibromochloromethane	NE	50			5	U	1	U
1,1,2-Trichloroethane	5	5			5	U	1	U
Benzene	5	5			5	U	1	U
Trans-1,3-Dichloropropene	5	5			5	U	1	U
Tetrachloroethene	5	5			3	J	1	U
1,1,2,2-Tetrachloroethane	5	5			5	U	1	U
Toluene	5	5			5	U	1	U
Chlorobenzene	5	5			5	U	1	U
Ethylbenzene	5	5			5	U	1	U
Xylene (total)	5	5			5	U	1	U
Total Petroleum Hydrocarbon (mg/kg)	NE	NE			10.8		<1	

NOTES:
All values reported in µg/L (ppb), unless otherwise noted.
Compound is detected.
U – Analyzed for but not detected.
J – Indicates an estimated value.
** – NYS Class GA Guidance Value
2/92 samples analyzed using GC/MS method (8240).
4/92 samples analyzed using GC/MS methods (8010/802
NE – Not established

TABLE 9

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

GROUND WATER INORGANIC DATA

	NYS MCL	NYS CLASS GA STANDARDS	DATE COLLECTED	TOTAL MW-2 2/19/92	TOTAL MW-2 4/15/92	FILTERED MW-2 2/19/92	FILTERED MW-2 4/15/92	TOTAL MW-2D 2/19/92	TOTAL MW-2D 4/15/92	FILTERED MW-2D 2/19/92	FILTERED MW-2D 4/15/92	TOTAL FIELD DUP MW-2D 2/19/92
Aluminum	NE	NE		57,100	112,000	49 B	36.3 U	62,200	75,500	44.8 B	36.3 U	61,600
Antimony	NE	3 **		95.8	438	46.7 B	35.7 U	97.2	292	42.2 U	35.7 U	60 B
Arsenic	50	25		11.5	16.4	5.3 B	5 U	5.6 B	5 U	5 U	5 U	6 B
Barium	1,000	1,000		798	1,330	213	200	862	1,100	144 B	117 B	866
Beryllium	NE	3 **		3.1 B	7	2.5 U	1.3 U	2.6 B	5.1	2.5 U	1.3 U	2.6 B
Cadmium	10	10		4.1 U	3.8 U	4.1 U	3.8 U	4.1 U	3.8 U	4.1 U	3.8 U	4.1 U
Calcium	NE	NE		109,000	140,000	75,800	74,900	121,000	158,000	80,700	75,900	117,000
Chromium	50	50		160	280	9.1 U	3.9 U	194	271	9.1 U	3.9 U	188
Cobalt	NE	NE		73.1	113	10.4 U	6.9 U	68.9	72.2	10.4 U	6.9 U	67.7
Copper	1,000	200		199	240	5 U	3.9 U	156	209	5 U	3.9 U	155
Iron	300	300		120,000	207,000	8,270	4,990	116,000	138,000	119	11.2 U	115,000
Lead	50	25		34.9	47.8	3 U	2 U	76.6	82.4	3 U	2 U	77
Magnesium	NE	35,000		70,000	106,000	24,300	21,600	72,500	91,700	26,700	25,700	70,800
Manganese	300	300		2,220	3,570	676	583	1,990	2,420	284	220	1,980
Mercury	2	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.43
Nickel	NE	NE		103	198	21.5 U	30.6 U	139	165	21.5 U	30.6 U	134
Potassium	NE	NE		30,500	49,700	4,640 B	5,840	36,200	43,400	12,300	11,200	36,500
Selenium	NE	10		50 U	4 U	5 U	4 U	5 U	4 U	5 U	4 U	50 U
Silver	NE	50		5.7 U	9.9 U	5.7 U	9.9 U	5.7 U	9.9 U	5.7 U	9.9 U	5.7 U
Sodium	NE	20,000		65,000	67,600	60,400	46,600	41,700	47,500	43,900	41,800	41,800
Thallium	NE	4 **		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	NE	NE		170	327	7.9 U	4.8 U	186	236	7.9 U	4.8 U	181
Zinc	5,000	300		355	578	6.1 B	9.7 B	335	425	5.3 U	4.5 U	336
Cyanide		100		NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA

NOTES:
All values reported in µg/L (ppb).
U – Analyzed for but not detected.
B – Value is less than the Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit.
NA – Not analyzed/Not applicable
NE – Not established
** – NYS Class GA Guidance Value
NYS MCLs are 10 NYCRR 5-1 MCLs

PGB:kjf/ITT011.5

TABLE 9

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

GROUND WATER INORGANIC DATA

	NYS MCL	NYS CLASS GA STANDARDS	DATE COLLECTED	FILTERED FIELD DUP MW-2D 2/19/92	TOTAL MW-3 2/19/92	TOTAL MW-3 4/15/92	FILTERED MW-3 2/19/92	FILTERED MW-3 4/15/92	TOTAL MW-3D 2/19/92	TOTAL MW-3D 4/15/92	TOTAL FIELD DUP MW-3D 4/15/92	FILTERED MW-3D 2/19/92
Aluminum	NE	NE		42.4 B	21,800	103,000	34.1 U	360	247,000	102,000	82,800	34.1 U
Antimony	NE	3 **		42.2 U	42.2 U	443	42.2 U	35.7 U	210	411	338	42.2 U
Arsenic	50	25		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Barium	1,000	1,000		143 B	350	1,310	122 B	82.8 B	2,550	1,250	1,070	99.4 B
Beryllium	NE	3 **		2.5 U	2.5 U	9.5	2.5 U	1.3 U	16.4	9.5	8	2.5 U
Cadmium	10	10		4.1 U	4.1 U	3.8 U	4.1 U	3.8 U	4.1 U	3.8 U	3.8 U	4.1 U
Calcium	NE	NE		80,000	113,000	191,000	104,000	62,900	150,000	130,000	115,000	76,400
Chromium	50	50		9.1 U	56.6	255	9.1 U	3.9 U	550	249	213	9.1 U
Cobalt	NE	NE		10.4 U	28.4 B	112	10.4 U	6.9 U	218	83.2	70.7	10.4 U
Copper	1,000	200		5 U	61.2	321	5 U	3.9 U	466	256	221	5 U
Iron	300	300		124	41,100	206,000	13.3 B	32.8 B	428,000	183,000	160,000	127
Lead	50	25		3 U	19.5	83.2	3 U	2 U	379	93	90.4	3 U
Magnesium	NE	35,000		26,800	50,300	122,000	36,200	21,300	158,000	86,600	75,800	25,900
Manganese	300	300		282	3,160	6,110	2,330	671	8,800	4,350	3,760	1,300
Mercury	2	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.29	0.27	0.2 U	0.2 U
Nickel	NE	NE		21.5 U	62.2	217	21.9 B	43.9	369	158	142	21.5 U
Potassium	NE	NE		12,400	12,600	44,600	4,490 B	3,680 B	108,000	44,700	39,700	5,090
Selenium	NE	10		5 U	50 U	4 U	5 U	4 U	50 U	4 U	4 U	5 U
Silver	NE	50		5.7 U	5.7 U	9.9 U	5.7 U	9.9 U	5.7 U	9.9 U	9.9 U	5.7 U
Sodium	NE	20,000		43,800	38,700	38,700	40,700	37,100	38,300	44,500	41,000	41,700
Thallium	NE	4 **		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	NE	NE		7.9 U	71.2	358	7.9 U	4.8 U	626	273	229	7.9 U
Zinc	5,000	300		5.3 U	122	537	5.3 U	21.4	1,300	533	442	5.3 U
Cyanide		100		NA	NA	10 U	NA	10 U	NA	10 U	10 U	NA

NOTES:
All values reported in µg/L (ppb).
U – Analyzed for but not detected.
B – Value is less than the Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit.
NA – Not analyzed/Not applicable
NE – Not established
** – NYS Class GA Guidance Value
NYS MCLs are 10 NYCRR 5–1 MCLs

PGB:kjf/ITT011.5

TABLE 9

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

GROUND WATER INORGANIC DATA

	NYS MCL	NYS CLASS GA STANDARDS	DATE COLLECTED	FILTERED MW-3D 4/15/92	FILTERED FIELD DUP MW-3D 4/15/92	TOTAL MW-4 2/20/92	TOTAL MW-4 4/15/92	FILTERED MW-4 2/20/92	FILTERED MW-4 4/15/92	TOTAL MW-4D 2/20/92	TOTAL MW-4D 4/15/92
Aluminum	NE	NE		36.3 U	36.3 U	164,000	112,000	34.1 U	36.3 U	21,000	26,000
Antimony	NE	3 **		35.7 U	35.7 U	149	423	56.2 B	89.2	42.2 U	127
Arsenic	50	25		5 U	5 U	6.9 B	5 U	5 U	5 U	5 U	5 U
Barium	1,000	1,000		122 B	128 B	1,620	1,290	285	269	337	427
Beryllium	NE	3 **		1.3 U	1.3 U	8.5	8.5	2.5 U	1.3 U	2.5 U	2.3 B
Cadmium	10	10		3.8 U	3.8 U	4.1 U	4.6 B	4.1 U	3.8 U	4.1 U	3.8 U
Calcium	NE	NE		86,200	90,500	138,000	113,000	121,000	108,000	83,800	74,500
Chromium	50	50		3.9 U	3.9 U	376	323	9.1 U	3.9 U	53.6	70.7
Cobalt	NE	NE		6.9 U	6.9 U	166	116	14.5 B	13.3 B	24.8 B	28.4 B
Copper	1,000	200		3.9 U	3.9 U	394	369	5 U	3.9 U	53.8	90.6
Iron	300	300		70.9 B	83.4 B	245,000	197,000	15,900	28,800	37,000	52,000
Lead	50	25		2 U	2 U	95.6	78.9	3 U	2 U	15.5	22
Magnesium	NE	35,000		30,800	32,100	98,200	78,900	37,700	35,200	34,300	36,700
Manganese	300	300		285	302	9,050	6,290	6,590	5,190	811	1,600
Mercury	2	2		0.2 U	0.2 U	0.68	0.24	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	NE	NE		30.6 U	30.6 U	304	235	21.5 U	30.6 U	41.2	55.1
Potassium	NE	NE		4,060 B	4,110 B	50,400	34,700	11,400	9,140	16,400	16,800
Selenium	NE	10		4 U	4 U	50 U	4 U	5 U	4 U	5 U	4 U
Silver	NE	50		9.9 U	9.9 U	5.7 U	9.9 U	5.7 U	9.9 U	5.7 U	9.9 U
Sodium	NE	20,000		49,400	51,600	126,000	134,000	135,000	177,000	32,200	38,900
Thallium	NE	4 **		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	NE	NE		4.8 U	4.8 U	419	314	7.9 U	4.8 U	68.1	82
Zinc	5,000	300		21	21	589	480	10.4 B	25.2	135	156
Cyanide		100		10 U	10 U	NA	10 U	NA	10 U	NA	10 U

NOTES:
All values reported in µg/L (ppb).
U – Analyzed for but not detected.
B – Value is less than the Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit.
NA – Not analyzed/Not applicable
NE – Not established
** – NYS Class GA Guidance Value
NYS MCLs are 10 NYCRR 5-1 MCLs

TABLE 9

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

GROUND WATER INORGANIC DATA

	NYS MCL	NYS CLASS GA STANDARDS		DATE COLLECTED	FILTERED MW-4D 2/20/92		FILTERED MW-4D 4/15/92	
Aluminum	NE	NE			34.1	U	36.3	U
Antimony	NE	3	**		42.2	U	35.7	U
Arsenic	50	25			5	U	5	U
Barium	1,000	1,000			101	B	121	B
Beryllium	NE	3	**		2.5	U	1.3	B
Cadmium	10	10			4.1	U	3.8	U
Calcium	NE	NE			78,800		64,100	
Chromium	50	50			9.1	U	3.9	U
Cobalt	NE	NE			10.4	U	6.9	U
Copper	1,000	200			5	U	3.9	U
Iron	300	300			13.3	U	28.6	B
Lead	50	25			3	U	2	U
Magnesium	NE	35,000			22,700		19,600	
Manganese	300	300			234		69.7	
Mercury	2	2			0.2	U	0.2	U
Nickel	NE	NE			21.5	U	30.6	U
Potassium	NE	NE			6,180		5,830	
Selenium	NE	10			5	U	4	U
Silver	NE	50			5.7	U	9.9	U
Sodium	NE	20,000			32,500		47,800	
Thallium	NE	4	**		5	U	5	U
Vanadium	NE	NE			7.9	U	4.8	U
Zinc	5,000	300			5.3	U	4.6	B
Cyanide		100			NA		10	U

NOTES:
All values reported in µg/L (ppb).
U – Analyzed for but not detected.
B – Value is less than the Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit.
NA – Not analyzed/Not applicable
NE – Not established
** – NYS Class GA Guidance Value
NYS MCLs are 10 NYCRR 5-1 MCLs

PGB:kjf/ITT011.5

TABLE 10

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NEW YORK

GROUND WATER ORGANIC (IRM)

DATE COLLECTED	WELL-5 3/4/92	RW-2 4/10/92	RW-2 4/30/92	RW-2 5/12/92	RW-2 6/17/92
1,1-Dichloroethane	ND	<5,000	9,300	4,800	5,500
1,1-Dichloroethylene	ND	<5,000	1,800	<1,000	1,200
1,2-Dichloroethylene (total)	ND	<5,000	28,000	17,000	17,000
Dichloromethane	NA	NA	1,200	<1,000	<1,000
Tetrachloroethylene	140,000	130,000	38,000	33,000	25,000
Toluene	900	<5,000	8,100	<1,000	3,900
1,1,1-Trichloroethane	74,000	85,000	98,000	95,000	70,000
Trichloroethene	NA	<5,000	<1,000	1,400	1,000
Total VOCs	214,900	215,000	184,400	151,200	123,600

NOTES: All values reported in μg/L (ppb)
< - Compound not detected. "1" identifies the detection limit.
ND - Not detectable
NA - Not analyzed

PGB:kjf/ITT011.15

TABLE 11

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SURFACE WATER ORGANIC DATA

	NYS MCL	NYS CLASS A STANDARDS	DATE COLLECTED	SW-1 2/20/92	SW-1 4/16/92	SW-2 2/20/92	SW-2 4/16/92	SW-3 2/20/92	SW-3 4/16/92
Chloromethane	5	NE		10 U	1 U	10 U	1 U	10 U	1 U
Bromomethane	5	NE		10 U	1 U	10 U	1 U	10 U	1 U
Vinyl Chloride	2	NE		10 U	1 U	10 U	1 U	10 U	1 U
Chloroethane	5	NE		10 U	1 U	10 U	1 U	10 U	1 U
Methylene Chloride	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
1,1-Dichloroethene	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
1,1-Dichloroethane	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
1,2-Dichloroethene (total)	10	NE		2 J	1 U	2 J	1 U	5 U	1 U
Chloroform	NE	7		5 U	1 U	5 U	1 U	5 U	1 U
1,2-Dichloroethane	5	0.8		5 U	1 U	5 U	1 U	5 U	1 U
1,1,1-Trichloroethane	5	NE		6	24	7	24	5 U	19
Carbon Tetrachloride	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
Bromodichloromethane	NE	NE		5 U	1 U	5 U	1 U	5 U	1 U
1,2-Dichloropropane	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
cis-1,3-Dichloropropene	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
Trichloroethene	5	NE		2 J	1 U	2 J	1 U	5 U	1 U
Dibromochloromethane	NE	NE		5 U	1 U	5 U	1 U	5 U	1 U
1,1,2-Trichloroethane	5	0.6		5 U	1 U	5 U	1 U	5 U	1 U
Benzene	5	0.7		5 U	1 U	5 U	1 U	5 U	1 U
Trans-1,3-Dichloropropene	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
Tetrachloroethene	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
1,1,2,2-Tetrachloroethane	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
Toluene	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
Chlorobenzene	5	20		5 U	1 U	5 U	1 U	5 U	1 U
Ethylbenzene	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
Xylene (total)	5	NE		5 U	1 U	5 U	1 U	5 U	1 U
Total Petroleum Hydrocarbons (mg/L)				11.3	<1	10.9	<1	10.9	<1

All values reported in µg/L (ppb), unless otherwise noted.
U – Analyzed but not detected
J – Indicates an estimated value
2/92 samples analyzed using GC methods (8240).
4/92 samples analyzed using GC methods (8010/8020).
NYS MCLs are 10 NYCRR 5-1 MCLs
NA – Not analyzed/Not applicable
NE – Not established
Compound is detected.

PGB:kjf/ITT011.13

TABLE 12

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

SURFACE WATER INORGANIC DATA

	NYS MCL	NYS CLASS A SURFACE WATER STANDARDS	DATE COLLECTED	SW-1 2/20/92	SW-1 4/16/92	SW-2 2/20/92	SW-2 4/16/92	SW-3 2/20/92	SW-3 4/16/92
Aluminum	NE	100		113 B	84.2 B	108 B	268	128 B	100 B
Antimony	NE	NE		42.2 U	35.7 U	42.2 U	35.7 U	42.2 U	35.7 U
Arsenic	50	50		5 U	5 U	5 U	5 U	5 U	5 U
Barium	1,000	1,000		45.5 B	49.2 B	41.2 B	50.5 B	41.2 B	49.2 B
Beryllium	NE	11		2.5 U	1.3 B	2.5 U	1.3 B	2.5 U	1.3 B
Cadmium	10	10		4.1 U	3.8 U	4.1 U	3.8 U	4.1 U	3.8 U
Calcium	NE	NE		34,200	40,800	33,200	38,400	31,300	35,400
Chromium	50	50		9.1 U	3.9 U	9.1 U	3.9 U	9.1 U	3.9 U
Cobalt	NE	5		10.4 U	6.9 U	10.4 U	6.9 U	10.4 U	6.9 U
Copper	1,000	200		6.6 B	3.9 U	5 U	3.9 U	5 U	6.7 B
Iron	300	300		551	752	473	762	524	672
Lead	50	50		3.7	2.6 B	3 U	2 U	3.5	2 U
Magnesium	NE	35,000		11,100	12,300	10,700	11,500	10,100	10,600
Manganese	300	300		183	332	177	316	169	285
Mercury	2	2		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	NE	NE		21.5 U	30.6 U	21.5 U	30.6 U	21.5 U	30.6 U
Potassium	NE	NE		4,110 B	4,440 B	4,450 B	4,710 B	3,260 B	4510 B
Selenium	NE	10		5 U	4 U	5 U	4 U	5 U	4 U
Silver	NE	50		23.4	39.2	46.8	37.6	54.1	40.6
Sodium	NE	NE		47,900	44,600	46,100	41,900	43,800	38,700
Thallium	NE	8		5 U	5 U	5 U	5 U	5 U	5 U
Vanadium	NE	14		7.9 U	4.8 U	7.9 U	4.8 U	7.9 U	4.8 U
Zinc	5,000	300		40.4	7.8 B	14.2 B	6.8 B	10 B	11 B
Cyanide		100		NA	10 U	NA	10 U	NA	10 U

Data reported in μG/L (ppb)
U – Analyzed but not detected
B – Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit
NE – Not established
NYS MCLs are 10 NYCRR 5-1 MCLs
NA – Not analyzed/Not applicable

PGB:kjf/ITT011.14

TABLE 13

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

STREAM SEDIMENT ORGANIC DATA

DATE COLLECTED	SS-1 2/21/92	SS-1 4/16/92	SS-2 2/21/92	FIELD DUP. SS-2 2/21/92	SS-2 4/16/92	FIELD DUP. SS-2 4/16/92	SS-3 2/21/92	SS-3 4/16/92
Chloromethane	0.013 U	0.0013 U	0.013 U	0.013 U	0.0013 U	0.0012 U	0.071 U	0.0013 U
Bromomethane	0.013 U	0.0013 U	0.013 U	0.013 U	0.0013 U	0.0012 U	0.071 U	0.0013 U
Vinyl Chloride	0.013 U	0.0013 U	0.013 U	0.013 U	0.0013 U	0.0012 U	0.071 U	0.0013 U
Chloroethane	0.013 U	0.0013 U	0.013 U	0.013 U	0.0013 U	0.0012 U	0.071 U	0.0013 U
Methylene Chloride	0.002 JB	0.0013 U	0.006 U	0.002 JB	0.0013 U	0.0012 U	0.036 U	0.0013 U
1,1-Dichloroethene	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
1,1-Dichloroethane	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
1,2-Dichloroethene (total)	0.001 J	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Chloroform	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0007 J
1,2-Dichloroethane	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
1,1,1-Trichloroethane	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0019
Carbon Tetrachloride	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Bromodichloromethane	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
1,2-Dichloropropane	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
cis-1,3-Dichloropropene	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Trichloroethene	0.001 J	0.0013 U	0.006 U	0.001 J	0.0013 U	0.0012 U	0.036 U	0.0013 U
Dibromochloromethane	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
1,1,2-Trichloroethane	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Benzene	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Trans-1,3-Dichloropropene	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Tetrachloroethene	0.004 J	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.014
1,1,2,2-Tetrachloroethane	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Toluene	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Chlorobenzene	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Ethylbenzene	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Xylene (total)	0.006 U	0.0013 U	0.006 U	0.007 U	0.0013 U	0.0012 U	0.036 U	0.0013 U
Total Petroleum Hydrocarbons	2,550	1,740	3,240	NA	1,030	2,510	23,000	747

All values reported in mg/kg (ppm)
NA – Not analyzed/Not applicable
J – Indicates an estimated value
2/92 samples analyzed using GC/MS method (8240).
4/92 samples analyzed using GC/MS methods (8010/8020).

B – Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit
U – Analyzed for but not detected
Compound is detected.

PGB:kjf/ITT011.4

TABLE 14

PHASE I REMEDIAL INVESTIGATION
ITT SEALECTRO
MAMARONECK, NY

STREAM SEDIMENT INORGANIC DATA

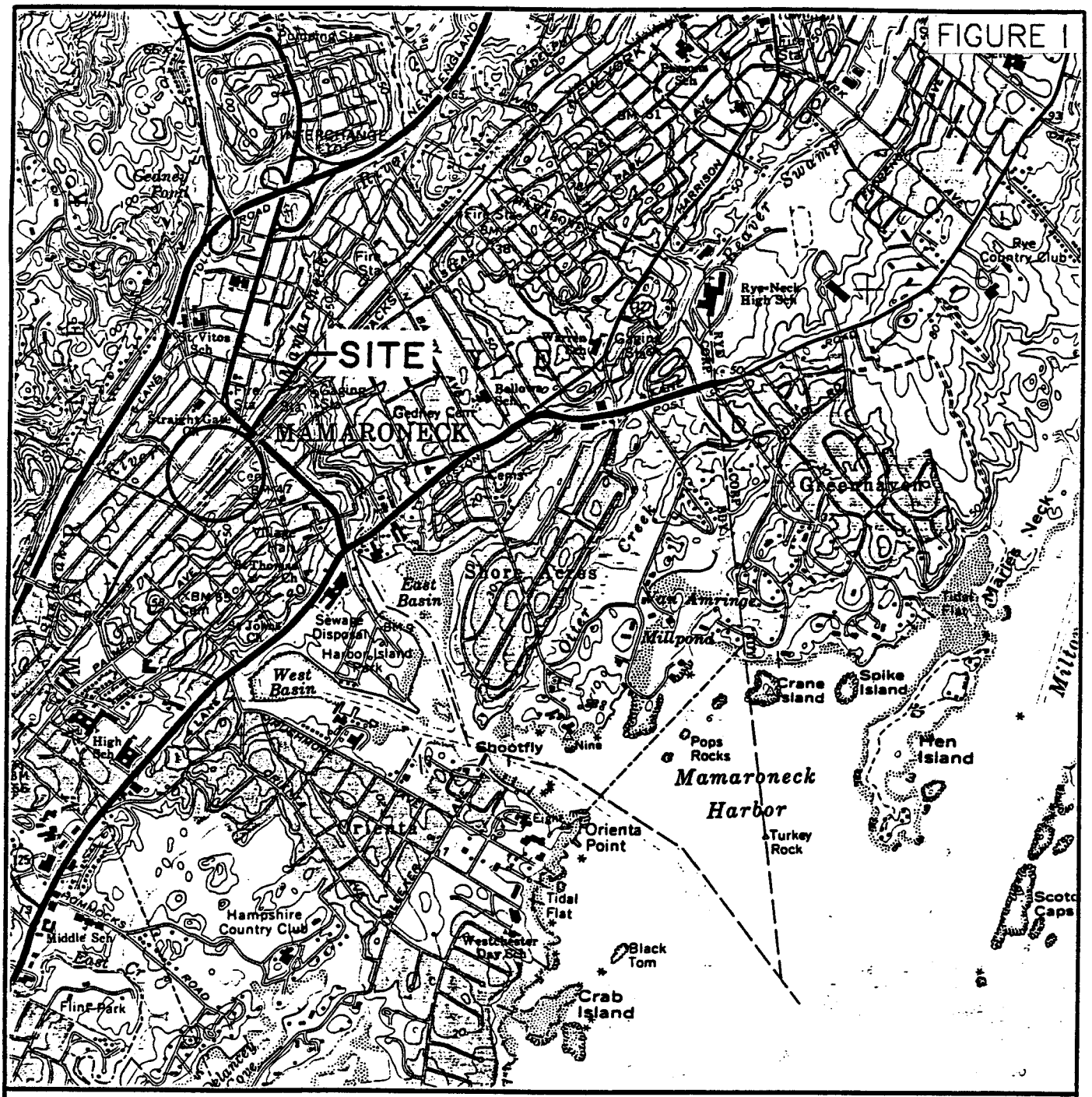
	NYS RANGE	WELL NO.	SS-1		SS-1		SS-2		DUP. SS-2		SS-2		DUP. SS-2		SS-3		SS-3	
		DATE COLLECTED	2/21/92		4/16/92		2/21/92		2/21/92		4/16/92		4/16/92		2/21/92		4/16/92	
Aluminum	1,000–25,000		2,460		3,730		3,710		3,240		4,550		4,030		28,700		2,500	
Antimony	NE		10.9	U	27.8		10.7	U	11.2	U	38.4		43.7		2,170		31.6	
Arsenic	3–12		3.2		3.6		4.5		3.5		3.5		3.7		36.4		2	B
Barium	15–600		25.2	B	63.5		42	B	42.7	B	45.7	B	45.4	B	207	B	30.8	B
Beryllium	0–1.75		1	B	1.1	B	9.3		34.5		1.5		2.5		3.6	U	0.34	U
Cadmium	0.01–0.88		1.1	U	0.99	U	1	U	1.1	U	0.98	U	1.3		5.9	U	1	U
Calcium	130–35,000		19,000		10,200		4,170		8,280		6,860		7,310		31,500		4,260	
Chromium	1.5–40		9.6		17.5		16.5		37.4		16.5		10		71		10.1	
Cobalt	2.5–60		3	B	3.3	B	6.6	B	6.9	B	5.6	B	4.9	B	19.8	B	4.9	B
Copper	37.4–112.2		372		218		2,790		2,400		318		4,710		347		41	
Iron	17,500–25,000		8,860		12,500		13,200		12,200		17,700		13,300		73,400		12,800	
Lead	1–12.5		108		75.6		116		248		87		275		586		57	
Magnesium	1,700–6,000		2,660		4,240		2,870		4,940		3,630		3,180		15,600		2,330	
Manganese	50–5,000		143		205		186		159		199		228		697		253	
Mercury	0.042–0.066		0.12	U	0.13	U	0.12	U	0.13	U	0.13	U	0.13		0.78		0.13	U
Nickel	8.5–25		5.6	U	14		16.5		18.6		25.3		16.6		76.9		20	
Potassium	8,500–43,000		457	B	765	B	1,080	B	505	B	1,400		955	B	2,070	U	566	B
Selenium	<0.1–0.125		1.3	U	1	U	1.3	U	1.3	U	1	U	1	U	7.1	U	1.1	U
Silver	NE		1.5	U	2.6	U	5.6		1.5	U	41.6		4		8.1	U	2.6	U
Sodium	6,000–8,000		173	U	125	U	170	U	178	U	124	U	121	U	956	U	127	U
Thallium	NE		1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	7.1	U	1.3	U
Vanadium	25–60		9.2	B	12.5	B	13.3		10.5	B	12.5	B	13		76.7		9.1	B
Zinc	37–60		286		237		1,380		321		448		2,230		808		128	
Cyanide			NA		0.57	U	NA		NA		0.6	U	0.65	U	NA		0.66	U
Percent Solids			77.3		77.0		78.6		75.2		77.8		79.5		14		76	

NOTES:
Surface soil data reported in MG/KG (ppm)
NE – Not established
NA – Not analyzed/Not applicable
B – Value is less than Contract Required Detection Limit, but greater than or equal to the Instrument Detection Limit
U – Analyzed but not detected.

PGB:kjf/ITT011.6

Figures

FIGURE 1



ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION

SITE LOCATION MAP

QUADRANGLE LOCATION

0 2000 4000

SCALE IN FEET

ADAPTED FROM 7.5 MIN. U.S.G.S. QUAD. MAP, MAMORONECK, NEW YORK

7/19/90

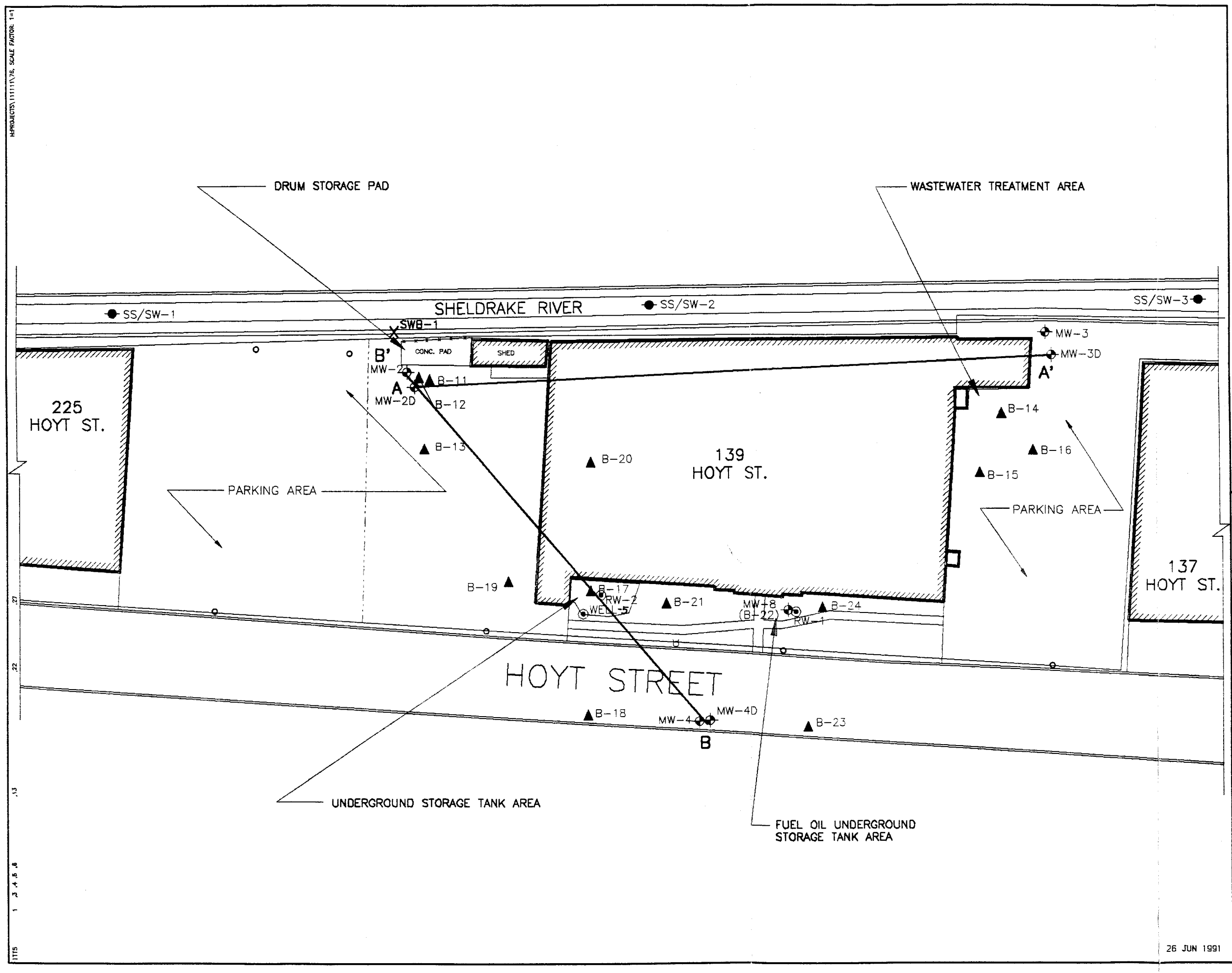
3356.07.111

6.5X11

FIGURE 2

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION



LEGEND

- PROPERTY LINE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- RECOVERY WELL LOCATION
- A–A' HYDROGEOLOGIC CROSS SECTION
- STREAM SEDIMENT/SURFACE WATER
- X SURFACE WATER BENCHMARK

SITE BASE MAP

40 0 40

SCALE IN FEET

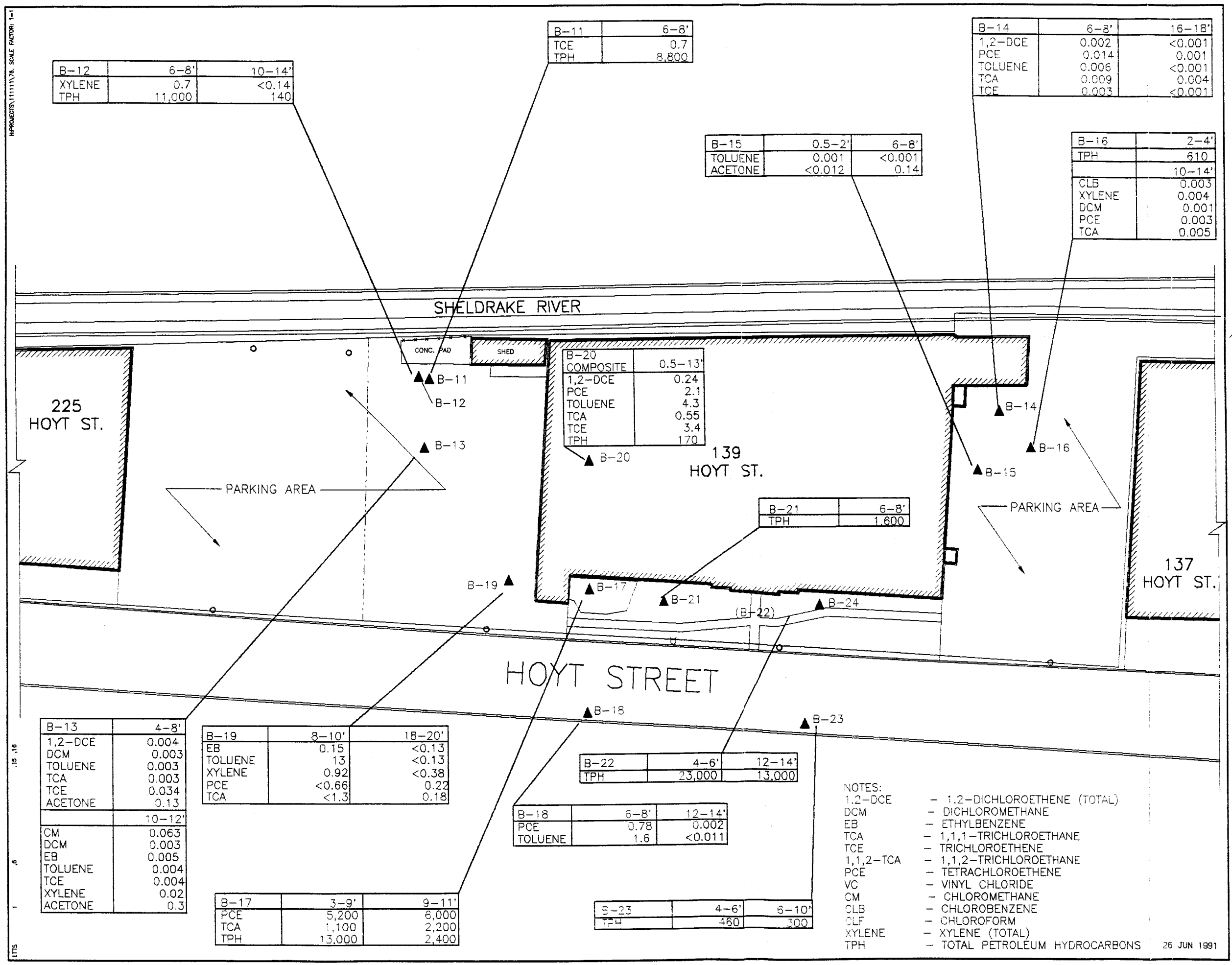
3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.

FIGURE 3

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION



B-12	6-8'	10-14'
XYLENE	0.7	<0.14
TPH	11,000	140

B-11	6-8'
TCE	0.7
TPH	8,800

B-14	6-8'	16-18'
1,2-DCE	0.002	<0.001
PCE	0.014	0.001
TOLUENE	0.006	<0.001
TCA	0.009	0.004
TCE	0.003	<0.001

B-15	0.5-2'	6-8'
TOLUENE	0.001	<0.001
ACETONE	<0.012	0.14

B-16	2-4'
TPH	610
	10-14'
CLB	0.003
XYLENE	0.004
DCM	0.001
PCE	0.003
TCA	0.005

B-20 COMPOSITE	0.5-13'
1,2-DCE	0.24
PCE	2.1
TOLUENE	4.3
TCA	0.55
TCE	3.4
TPH	170

B-21	6-8'
TPH	1,600

B-13	4-8'
1,2-DCE	0.004
DCM	0.003
TOLUENE	0.003
TCA	0.003
TCE	0.034
ACETONE	0.13
	10-12'
CM	0.063
DCM	0.003
EB	0.005
TOLUENE	0.004
TCE	0.004
XYLENE	0.02
ACETONE	0.3

B-19	8-10'	18-20'
EB	0.15	<0.13
TOLUENE	13	<0.13
XYLENE	0.92	<0.38
PCE	<0.66	0.22
TCA	<1.3	0.18

B-22	4-6'	12-14'
TPH	23,000	13,000

B-18	6-8'	12-14'
PCE	0.78	0.002
TOLUENE	1.6	<0.011

B-17	3-9'	9-11'
PCE	5,200	6,000
TCA	1,100	2,200
TPH	13,000	2,400

B-23	4-6'	6-10'
TPH	460	300

NOTES:

1,2-DCE	- 1,2-DICHLOROETHENE (TOTAL)
DCM	- DICHLOROMETHANE
EB	- ETHYLBENZENE
TCA	- 1,1,1-TRICHLOROETHANE
TCE	- TRICHLOROETHENE
1,1,2-TCA	- 1,1,2-TRICHLOROETHANE
PCE	- TETRACHLOROETHENE
VC	- VINYL CHLORIDE
CM	- CHLOROMETHANE
CLB	- CHLOROBENZENE
CLF	- CHLOROFORM
XYLENE	- XYLENE (TOTAL)
TPH	- TOTAL PETROLEUM HYDROCARBONS

26 JUN 1991

LEGEND

PROPERTY LINE

▲ SOIL BORING LOCATION

REMEDIAL INVESTIGATION SOILS - ORGANIC DATA

NOTE:
CONCENTRATIONS IN mg/kg (ppm).

40 0 40

SCALE IN FEET

3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.

FIGURE 4

ITT SEALECTRO
MAMARONECK, NEW YORK
PHASE 1 REMEDIAL INVESTIGATION

MW-2	2/19/92	4/15/92
1,1-DCA	22	60
1,2-DCE	19	<1
VC	<1	130
TPH	11.1	<1

MW-2D	2/19/92	4/15/92
1,1-DCA	5	<1
1,2-DCE	22	<1
TCA	22	<1
TCE	18	25
PCE	<5	28
TPH	11	<1

MW-3	2/19/92	4/15/92
1,1-DCE	410	200
1,1-DCA	220	150
1,2-DCE	34	5.9
CLF	1 J	<1
1,2-DCA	<5	17
TCA	530	90
TCE	28	41
1,1,2-TCE	10	<1
PCE	8	<1
TPH	11.3	<1

SHELDRAKE RIVER

225 HOYT ST.

139 HOYT ST.

137 HOYT ST.

HOYT STREET

CONC. PAD

SHED

MW-2

MW-2D

MW-3

MW-3D

PARKING AREA

PARKING AREA

RW-2

WELL-5

MW-8

RW-1

MW-4

MW-4D

MW-4	2/19/92	4/15/92
VC	9 J	<1
1,2-DCE	74	<1
TCE	2 J	38
TPH	11.4	<1

MW-4D	2/19/92	4/15/92
PCE	3 J	<1
TPH	10.8	<1

RW-2	4/10/92	4/30/92
PCE	130,000	38,000
TOLUENE	<5,000	8,100
TCA	85,000	98,000
1,1-DCE	<5,000	9,300
1,1-DCA	<5,000	1,800
1,2-DCE	<5,000	28,000
CM	<10,000	1,200

WELL-5	3/4/92
PCE	140,000
TOLUENE	900
TCA	74,000

MW-3D	2/19/92	4/15/92
1,1-DCE	19	71
1,1-DCA	16	<1
1,2-DCE	13	<1
TCA	330	57
TCE	9	17
1,1,2-TCE	<5	2.4
PCE	420	190
TPH	12	<1

NOTES:

1,1-DCE	–	1,1-DICHLOROETHENE
1,1-DCA	–	1,1-DICHLOROETHANE
1,2-DCE	–	1,2-DICHLOROETHENE (TOTAL)
TCA	–	1,1,1-TRICHLOROETHANE
TCE	–	TRICHLOROETHENE
1,1,2-TCA	–	1,1,2-TRICHLOROETHANE
PCE	–	TETRACHLOROETHENE
VC	–	VINYL CHLORIDE
CM	–	CHLOROMETHANE
CLF	–	CHLOROFORM
TPH	–	TOTAL PETROLEUM HYDROCARBONS (mg/kg)

J – INDICATES AN ESTIMATED VALUE.
CONCENTRATIONS IN ug/L (ppb) UNLESS OTHERWISE NOTED.

26 JUN 1991

LEGEND

PROPERTY LINE

MONITORING WELL LOCATION

RECOVERY WELL LOCATION

GROUND WATER
ORGANIC DATA

40 0 40

SCALE IN FEET

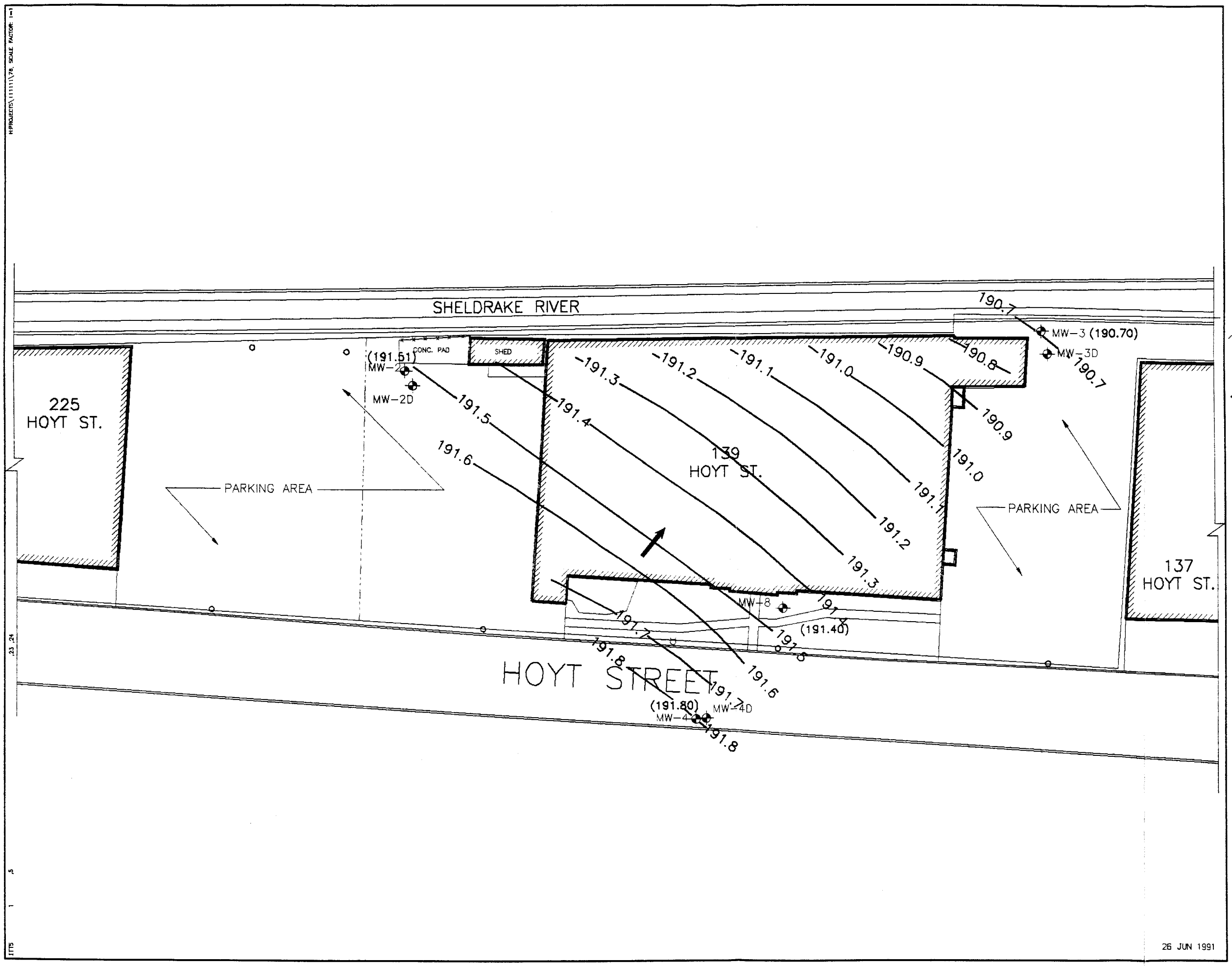
3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.

FIGURE 5

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION



LEGEND

- PROPERTY LINE
- MONITORING WELL LOCATION
- (191.51) GROUND WATER ELEVATION
- 191.60 GROUND WATER ELEVATION CONTOUR
- GROUND WATER FLOW DIRECTION

SHALLOW GROUND WATER
FLOW MAP 2/19/92

40 0 40

SCALE IN FEET

3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.

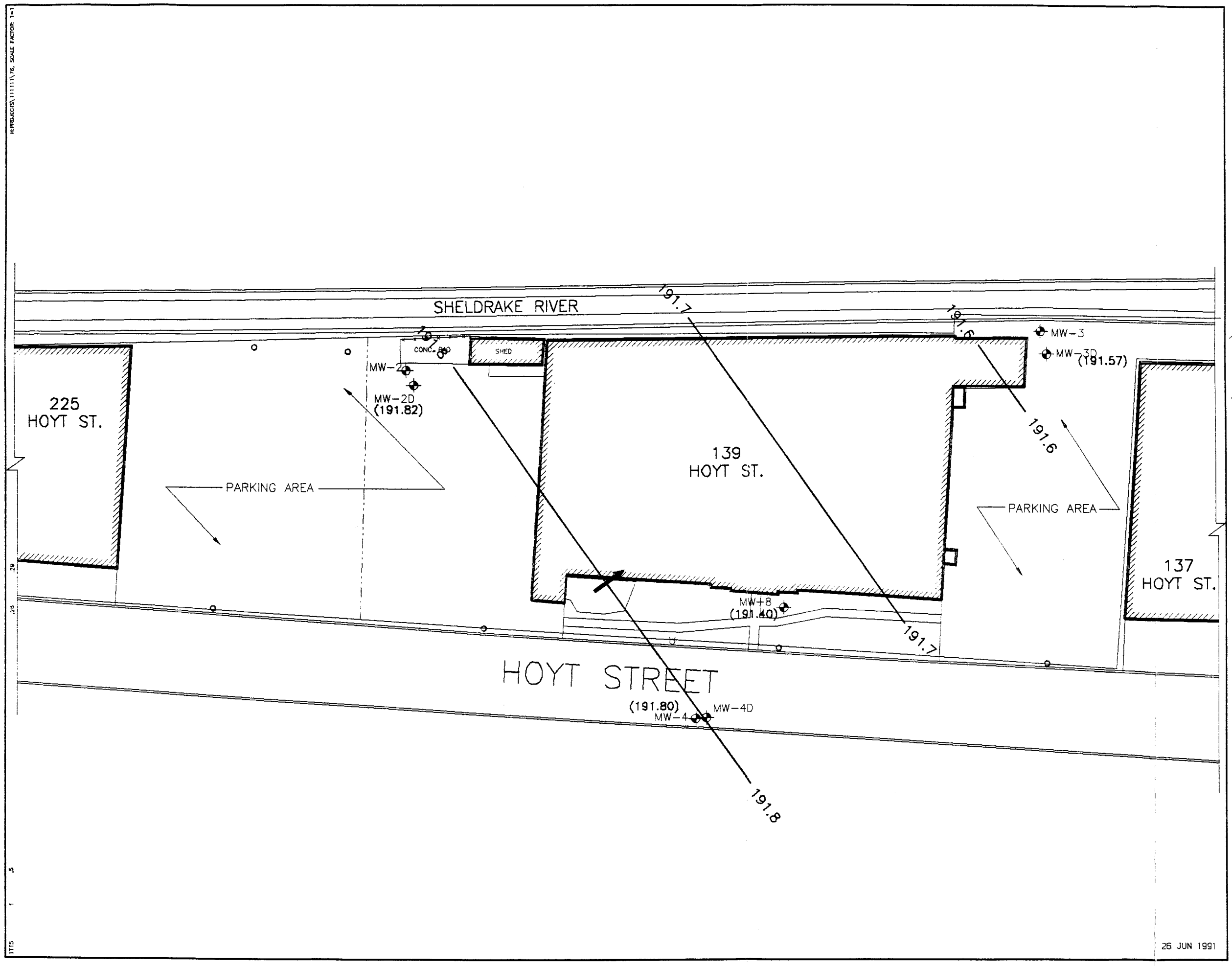


FIGURE 6

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION

LEGEND

- PROPERTY LINE
- MONITORING WELL LOCATION
- (191.53) GROUND WATER ELEVATION
- 191.60 GROUND WATER ELEVATION CONTOUR
- GROUND WATER FLOW DIRECTION

DEEP GROUND WATER
FLOW MAP 2/19/92

40 0 40

SCALE IN FEET

3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.

H:\PROJECTS_1111\1\76, SCALE FACTOR 1=1

SHELDRAKE RIVER

SWB-1

(190.94)
MW-2S
MW-2D

CONC. PAD

SHED

MW-3 (190.67)
MW-3D

190.70
190.80
190.90
190.90
191.00
191.00
191.10
191.10
191.20
191.20
191.30
191.30
191.40
191.50

225
HOYT ST.

139
HOYT ST.

137
HOYT ST.

PARKING AREA

PARKING AREA

MW-8

191.60
191.60

HOYT STREET

191.70
191.70

MW-4S
MW-4D
(191.80)

26 JUN 1991

FIGURE 7

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION

LEGEND

- PROPERTY LINE
- MONITORING WELL LOCATION
- (191.80) GROUND WATER ELEVATION
- 191.00 GROUND WATER ELEVATION CONTOUR
- GROUND WATER FLOW DIRECTION
- SURFACE WATER BENCHMARK
- X

SHALLOW GROUND WATER
FLOW 4/15/92

40 0 40

SCALE IN FEET

3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.

H:\PROJECTS\111111\76, SCALE FACTOR: 1=1

SHELDRAKE RIVER

SWB-1

CONC. PAD

SHED

MW-2

MW-2D
(191.55)

MW-3

MW-3D
(191.53)

225
HOYT ST.

PARKING AREA

191.60

139
HOYT ST.

191.60

PARKING AREA

137
HOYT ST.

MW-8

191.70

191.70

HOYT STREET

MW-4

MW-4D
(191.76)

26 JUN 1991

FIGURE 8

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION

LEGEND

- PROPERTY LINE
- MONITORING WELL LOCATION
- (191.53) GROUND WATER ELEVATION
- 191.60 GROUND WATER ELEVATION CONTOUR
- GROUND WATER FLOW DIRECTION
- X SURFACE WATER BENCH MARK

DEEP GROUND WATER
FLOW 4/15/92

40 0 40

SCALE IN FEET

3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.

ITT SEALECTRO

STORM DATA

GROUND WATER AND SURFACE WATER

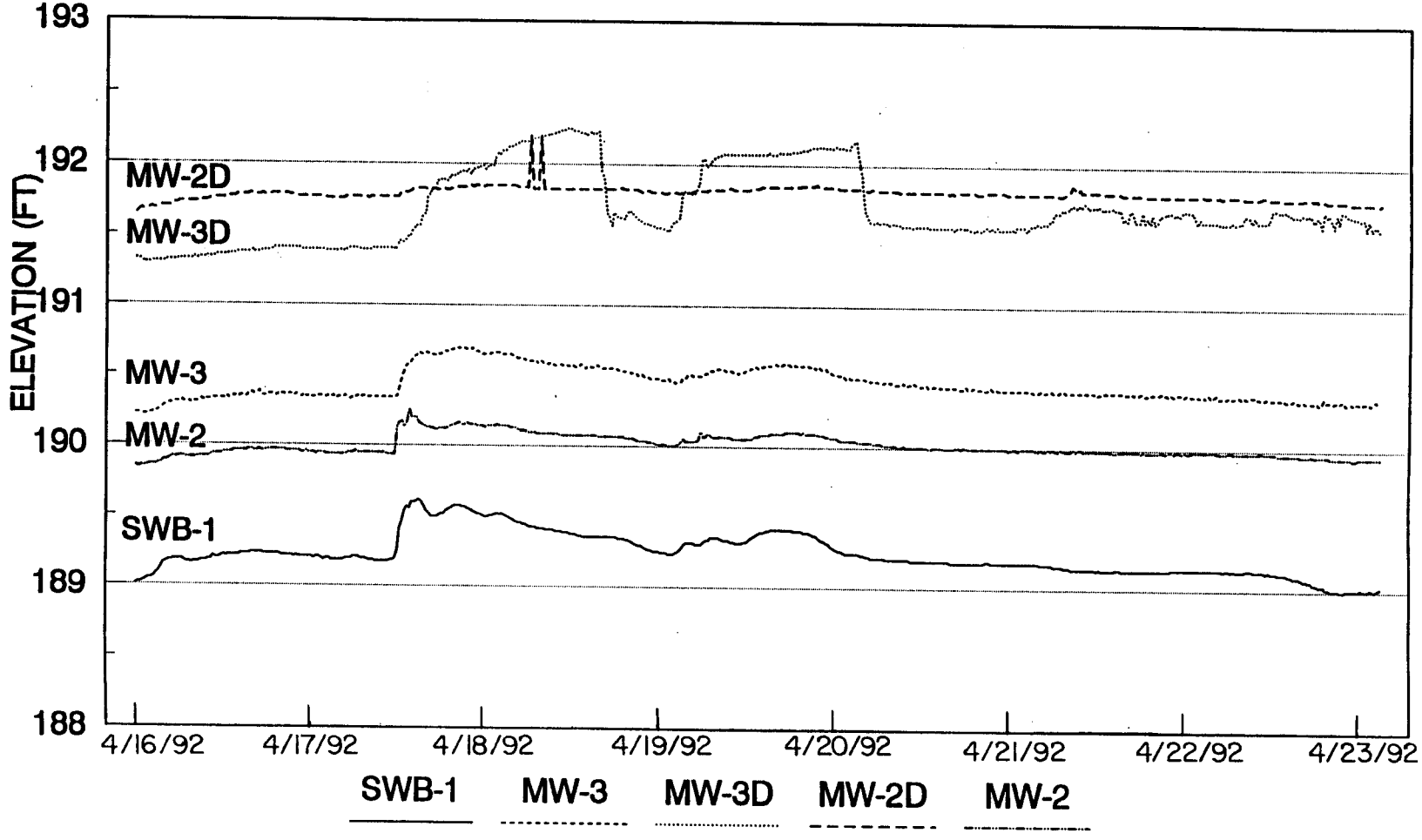


FIGURE 9A

O'BRIEN & GERE ENGINEERS, INC.

ITT SEALECTRO

STORM DATA

MW-2D

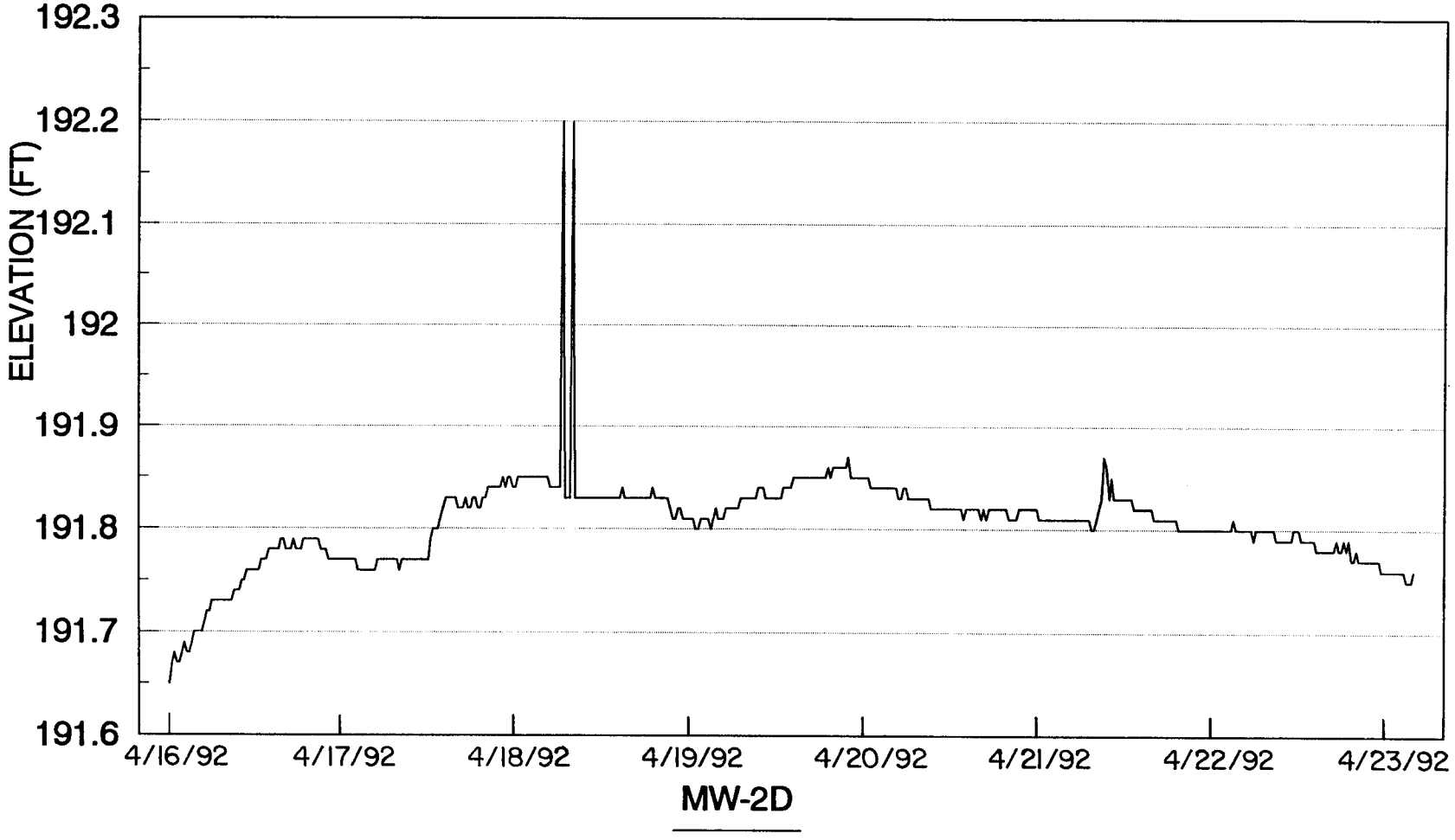


FIGURE 9B

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 10

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION

SW-1	2/21/92	4/16/92
1,2-DCE	2J	<1
TCA	6	24
TCE	2J	<1
TPH	11.3	<1

SW-2	2/21/92	4/16/92
1,2-DCE	2J	<1
TCA	7	24
TCE	2J	<1
TPH	10.9	<1

SW-3	2/21/92	4/16/92
TCA	<5	19
TPH	10.9	<1

SW-1

SHELDRAKE RIVER

SW-2

SW-3

CONC. PAD

SHED

225
HOYT ST.

PARKING AREA

139
HOYT ST.

PARKING AREA

137
HOYT ST.

HOYT STREET

NOTES:
TCA - 1,1,1-TRICHLOROETHANE
1,2-DCE - 1,2-DICHLOROETHENE
TCE - TRICHLOROETHENE
SURFACE WATER CONCENTRATIONS IN UG/L (PPB)
TPH - TOTAL PETROLEUM HYDROCARBONS (PPM)
J INDICATES AN ESTIMATED VALUE

26 JUN 1991

H:\PROJECTS\111111\76, SCALE FACTOR: 1=1

LEGEND

PROPERTY LINE

SURFACE WATER LOCATION

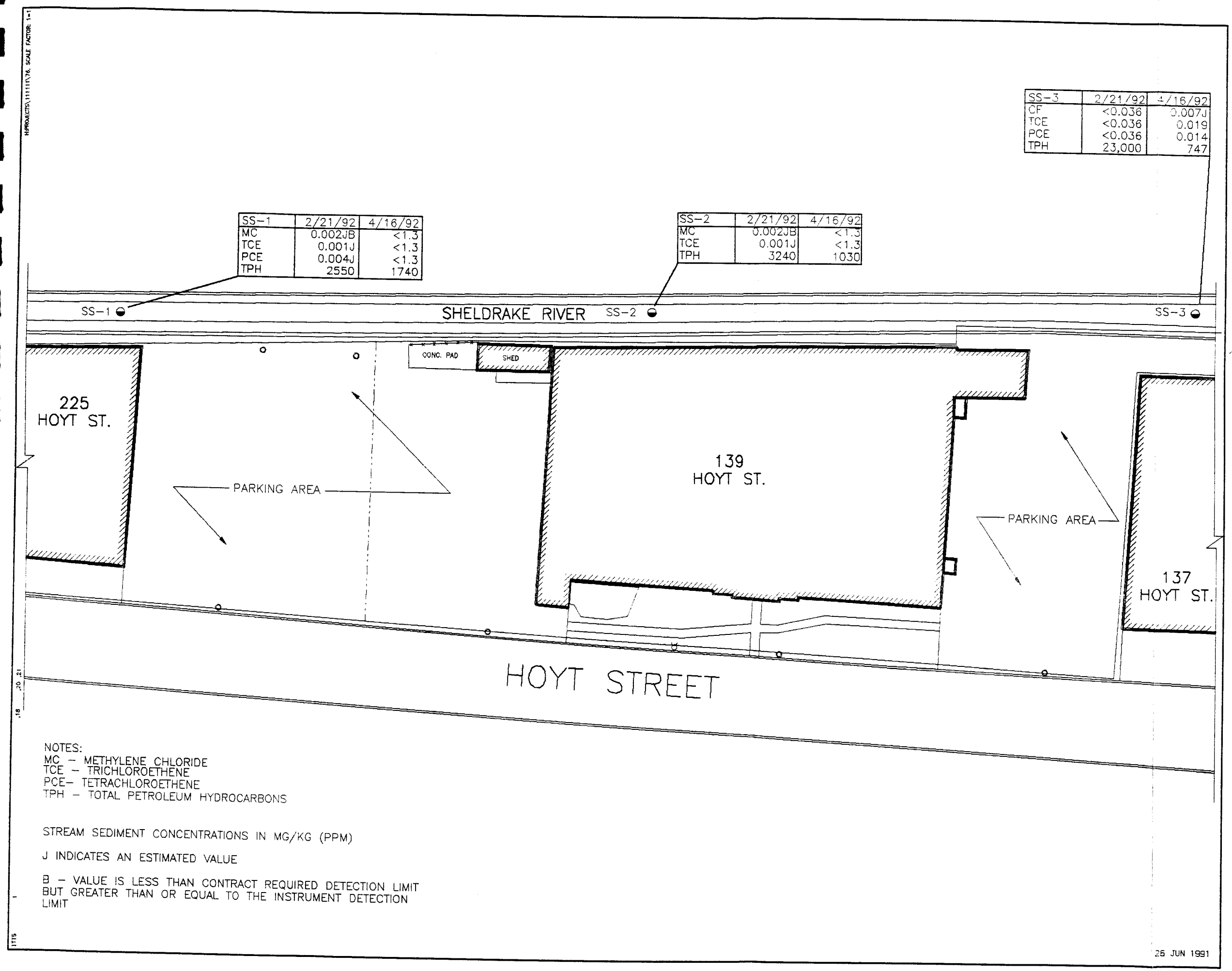
SURFACE WATER
ORGANIC DATA

40 0 40

SCALE IN FEET

3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.



NOTES:
MC – METHYLENE CHLORIDE
TCE – TRICHLOROETHENE
PCE– TETRACHLOROETHENE
TPH – TOTAL PETROLEUM HYDROCARBONS

STREAM SEDIMENT CONCENTRATIONS IN MG/KG (PPM)

J INDICATES AN ESTIMATED VALUE

B – VALUE IS LESS THAN CONTRACT REQUIRED DETECTION LIMIT BUT GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT

FIGURE 11

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION

LEGEND

PROPERTY LINE

SEDIMENT SAMPLE LOCATION

SEDIMENT SAMPLE ORGANIC DATA

40 0 40

SCALE IN FEET

3356.011.220

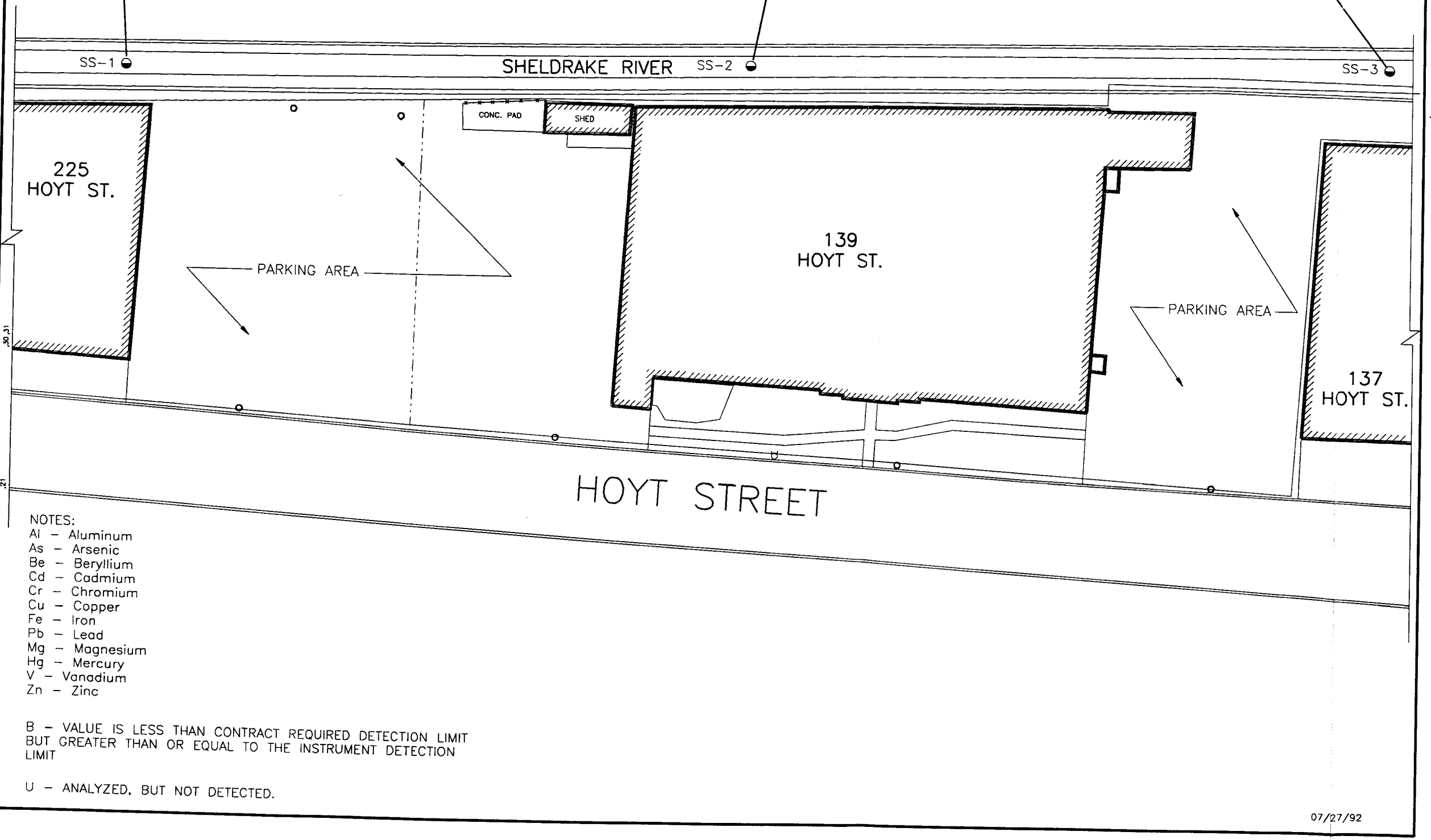
O'BRIEN & GERE ENGINEERS, INC.

H:\PROJECTS\111111\74, SCALE FACTOR: 1=1

SS-1	2/21/92	4/16/92
Al	2,460	3730
As	3.2	3.6
Be	1 B	1.1 B
Cd	1.1 U	0.99 U
Cr	9.6	17.5
Cu	372	218
Fe	8,860	12,500
Pb	108	75.6
Mg	2,660	4,240
Hg	0.12 U	0.13 U
V	9.2 B	12.5 B
Zn	286	237

SS-2	2/21/92	DUP. 2/21/92	4/16/92	DUP. 4/16/92
Al	3,710	3,240	4,550	4,030
As	4.5	3.5	3.5	3.7
Be	9.3	34.5	1.5	2.5
Cd	1 U	1.1 U	0.98 U	1.3
Cr	16.5	37.4	16.5	10
Cu	2,790	2,400	318	4,710
Fe	13,200	12,200	17,700	13,300
Pb	116	248	87	275
Mg	2,870	4,940	3,630	3,180
Hg	0.12 U	0.13 U	0.13 U	0.13
V	13.3	10.5 B	12.5 B	13
Zn	1,380	321	448	2,230

SS-3	2/21/92	4/16/92
Al	28,700	2,500
As	36.4	2 B
Be	3.6 U	0.34 U
Cd	5.9 U	1 U
Cr	71	10.1
Cu	347	41
Fe	73,400	12,800
Pb	586	57
Mg	15,600	2,330
Hg	0.78	0.13 U
V	76.7	9.1 B
Zn	808	128



NOTES:
Al – Aluminum
As – Arsenic
Be – Beryllium
Cd – Cadmium
Cr – Chromium
Cu – Copper
Fe – Iron
Pb – Lead
Mg – Magnesium
Hg – Mercury
V – Vanadium
Zn – Zinc

B – VALUE IS LESS THAN CONTRACT REQUIRED DETECTION LIMIT BUT GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT

U – ANALYZED, BUT NOT DETECTED.

07/27/92

FIGURE 12

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION

LEGEND

PROPERTY LINE

SEDIMENT SAMPLE LOCATION

SEDIMENT SAMPLE INORGANIC DATA

40 0 40

SCALE IN FEET

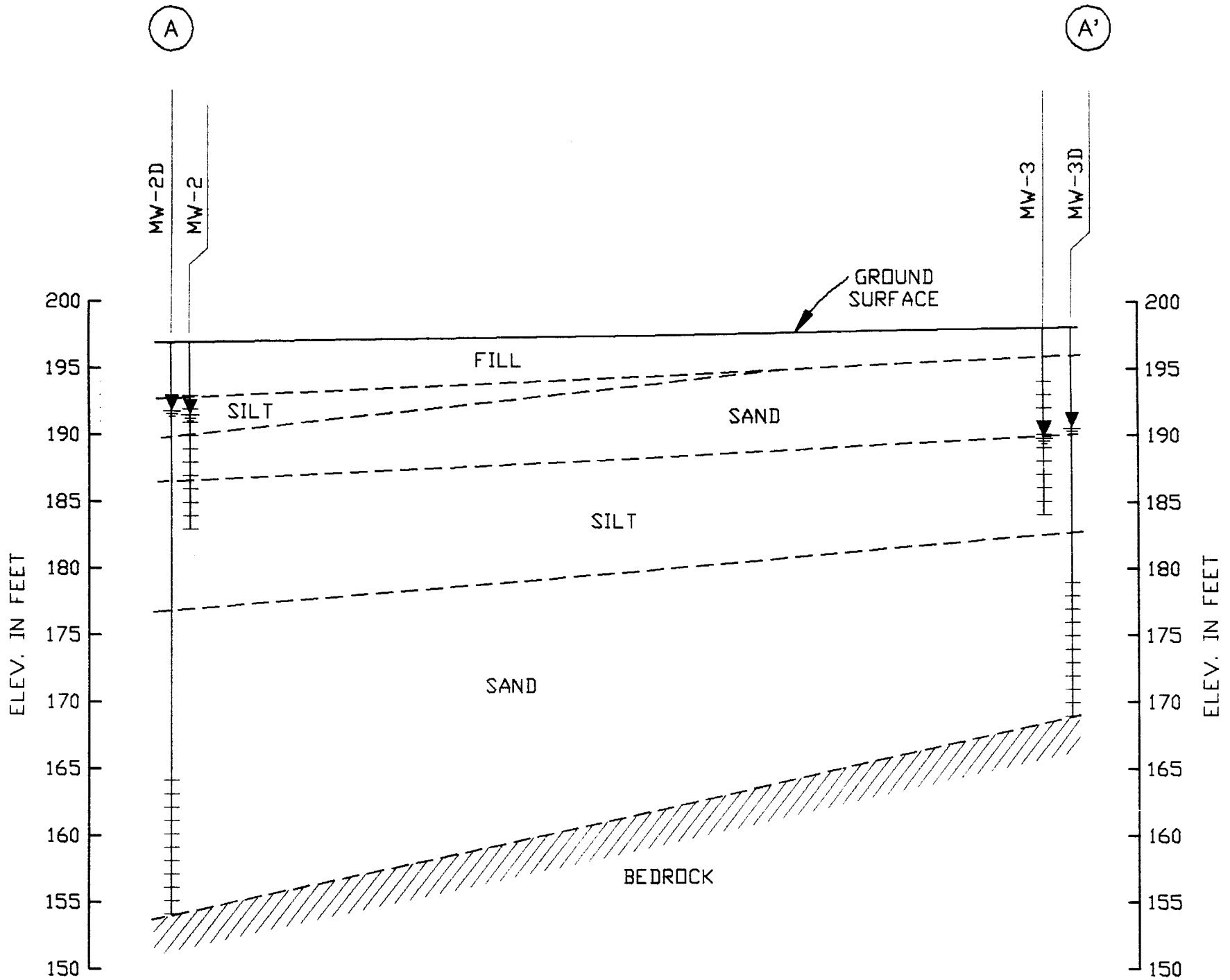
3356.011.220

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 13

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION



LEGEND

- SCREENED INTERVAL
- GROUND WATER ELEVATIONS (6/8/92)
- LITHOLOGIC BOUNDARY

NOTE:
VERTICAL EXAGERATION = 4

HYDROGEOLOGIC
CROSS SECTION A–A'

10 0 10
VERT. SCALE IN FEET

40 0 40
HORIZ. SCALE IN FEET

3356.011.220

O'BRIEN & GERE
ENGINEERS, INC.

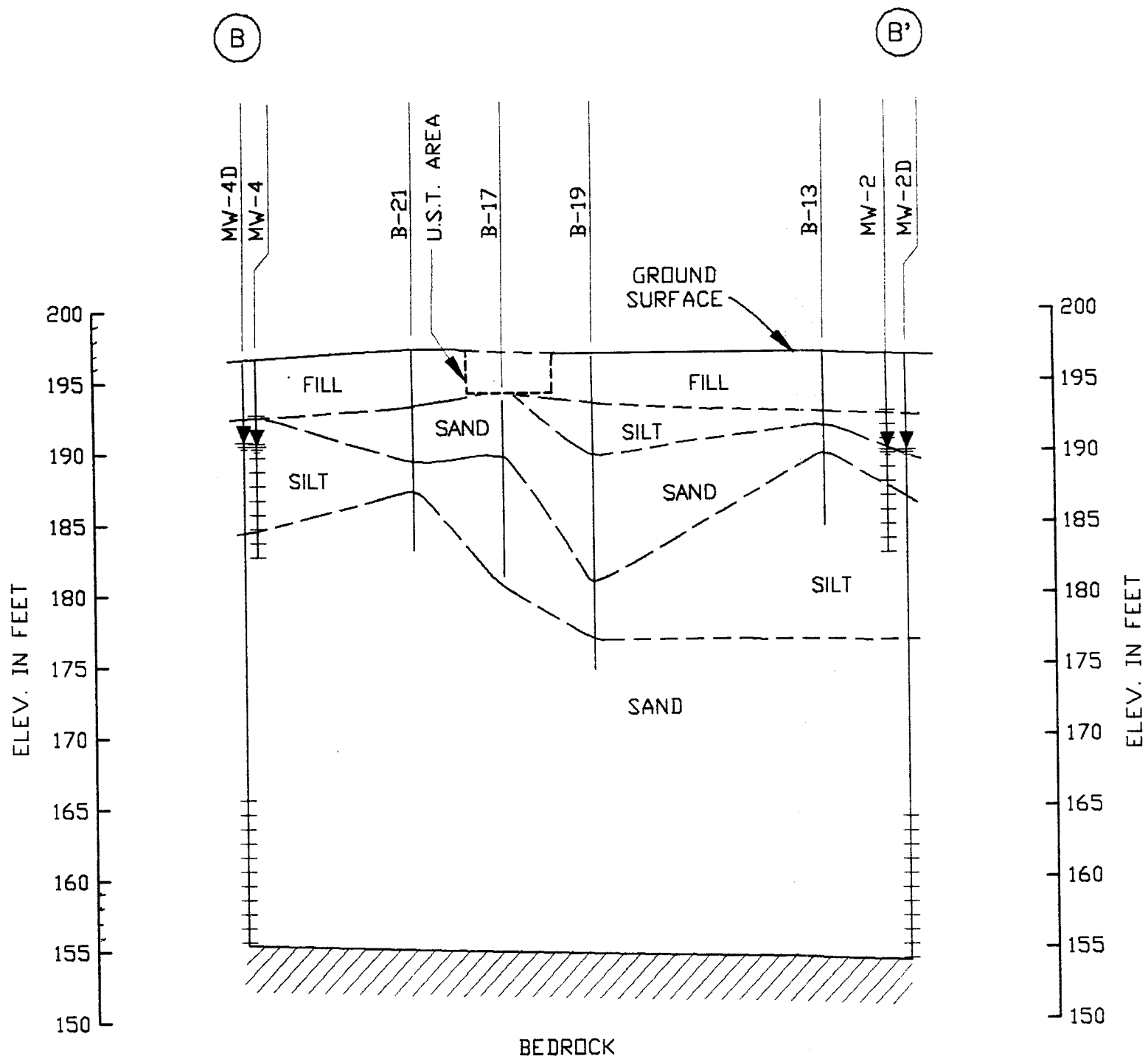
ITT3R

29 JUNE 1992

FIGURE 14

ITT SEALECTRO
MAMARONECK, NEW YORK

PHASE 1 REMEDIAL INVESTIGATION



LEGEND

- SCREENED INTERVAL
- GROUND WATER ELEVATIONS (6/8/92)
- LITHOLOGIC BOUNDARY

NOTE:
VERTICAL EXAGERATION = 4

HYDROGEOLOGIC CROSS SECTION B–B'

10 0 10
VERT. SCALE IN FEET
40 0 40
HORIZ. SCALE IN FEET

3356.011.220

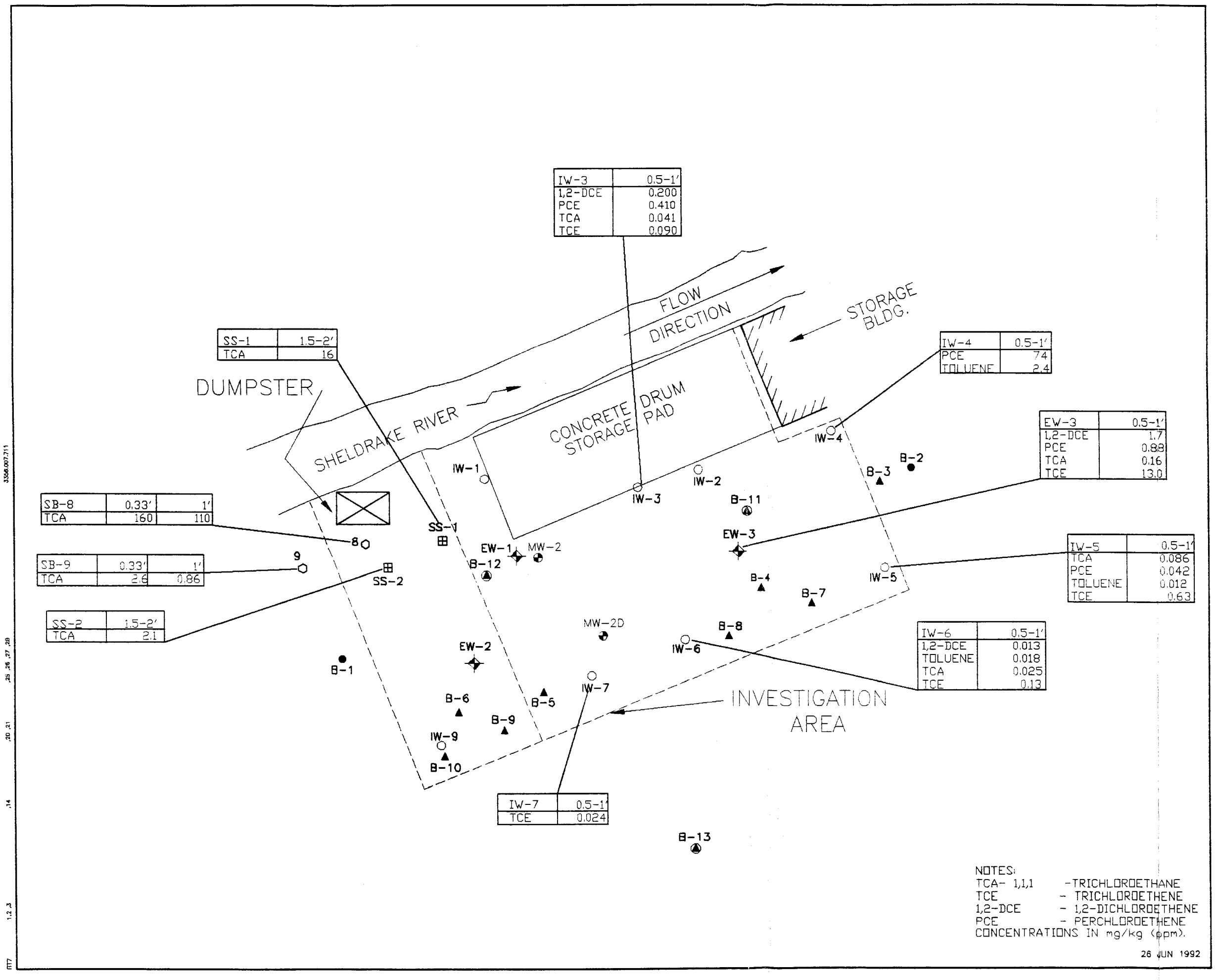
O'BRIEN & GERE ENGINEERS, INC.

29 JUNE 1992

ITT4R

FIGURE 15

ITT SEALECTRO
MAMARONECK, NEW YORK



NOTES:
TCA- 1,1,1 -TRICHLOROETHANE
TCE - TRICHLOROETHENE
1,2-DCE - 1,2-DICHLOROETHENE
PCE - PERCHLOROETHENE
CONCENTRATIONS IN mg/kg (ppm).

26 JUN 1992

LEGEND

- MONITORING WELL (6/88, TRC)
- SOIL BORING (6/88, TRC)
- SOIL BORING (8/89, OBG)
- SOIL BORING (1/92, OBG)
- SOIL SAMPLE (8/89, OBG)
- INLET WELL (10/91, OBG)
- EXTRACTION WELL (10/91, OBG)
- SURFACE SOIL SAMPLE (2/86, OBG)

SURFACE SOILS
ORGANIC DATA
(DRUM STORAGE PAD)

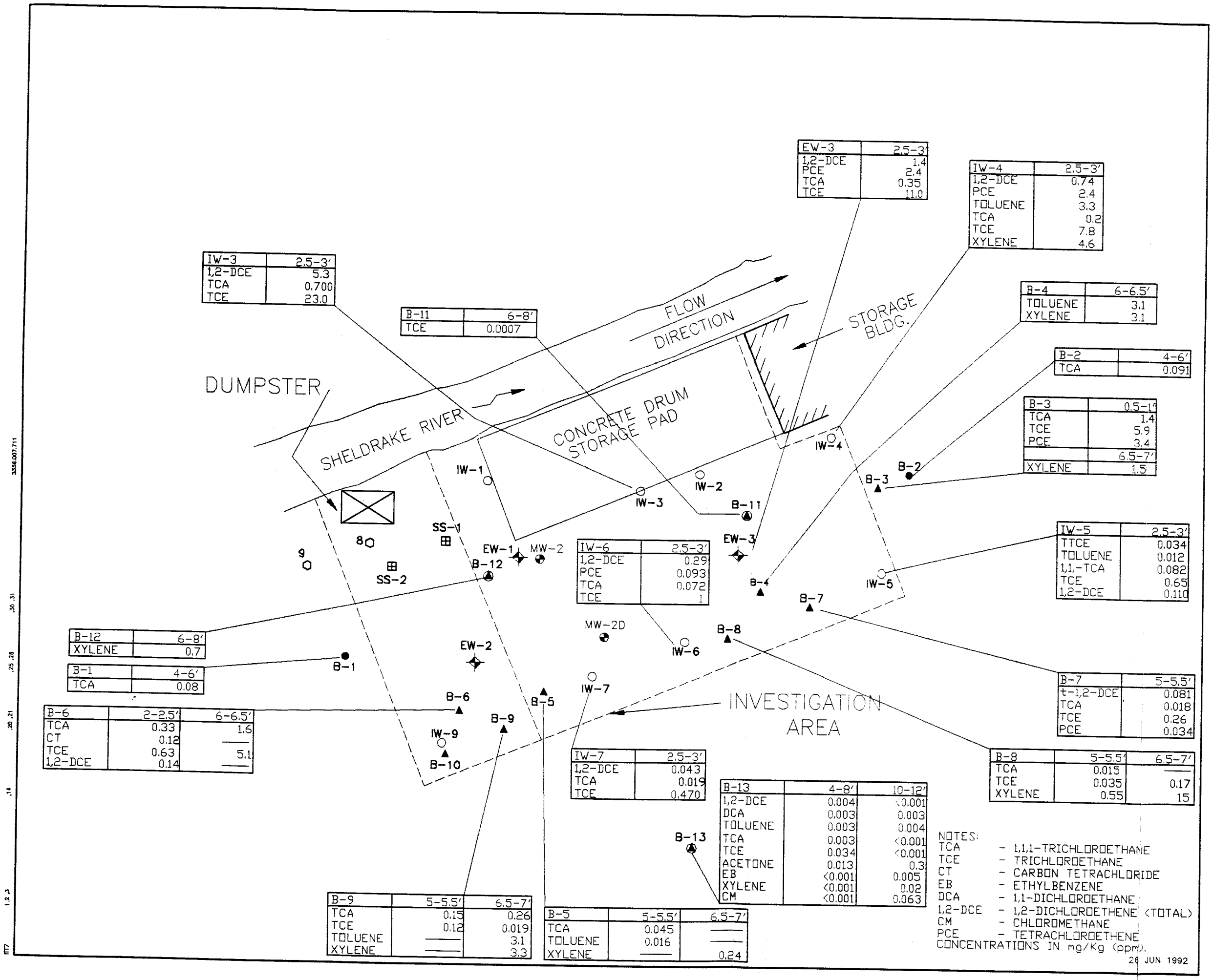
0 10 20
APPROX. SCALE IN FEET

O'BRIEN & GERE
ENGINEERS, INC.
Syracuse, New York

3556.007.711

FIGURE 16

ITT SEALECTRO
MAMARONECK, NEW YORK



LEGEND

- MONITORING WELL (6/88, TRC)
- SOIL BORING (6/88, TRC)
- SOIL BORING (8/89, OBG)
- SOIL BORING (1/92, OBG)
- SOIL SAMPLE (8/89, OBG)
- INLET WELL (10/91, OBG)
- EXTRACTION WELL (10/91, OBG)
- SURFACE SOIL SAMPLE (2/86, OBG)

SUBSURFACE SOILS ORGANIC DATA (DRUM STORAGE PAD)

0 10 20

APPROX. SCALE IN FEET

O'BRIEN & GERE
ENGINEERS, INC.
Syracuse New York

3356.007.711

Appendices

O'BRIEN & GERE
ENGINEERS, INC.

APPENDIX B

BORING LOGS AND MONITOR WELL CONSTRUCTION DIAGRAMS

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-2D PAGE 1 OF 3
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/21/92 END DATE: 1/22/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	7-5-4	18"/18"	12	ASPHALT				
1						Wet, medium dense, moderate yellowish brown (10 YR 5/4), fine to coarse SAND, some fine to coarse gravel				<1
2	2	2-4	2-3-3-4	24"/8"	6	Dry, loose, black CINDERS and SLAG	FILL			<1
3										
4	3	4-6	2-2-4-4	24"/6"	6	Wet, soft, moderate yellowish brown SILT and clay, some fine to medium sand, little fine to coarse gravel, micaceous	SILT			<1
5										
6	4	6-8	4-7-6-4	24"/24"	13	Moist, dusky yellowish brown (10 YR 2/2) SILT and fine sand, little clay grading downward to light olive gray (5 YR 6/1), medium SAND, wood chips at bottom of sand, micaceous				<1
7							SAND			
8	5	8-10	2-2-3-4	24"/16"	5	Moist, moderate yellowish brown, fine SAND and silt, trace clay grading to light olive gray, medium SAND, wood chips at bottom of sand, micaceous				<1
9										
10	6	10-12	4-7-8-10	24"/16"	15	Moist, medium dense, olive gray (5 Y 4/1) SILT, little clay and fine sand, low plasticity, high dilatency, micaceous	SILT			<1
11										
12	7	12-14	——	24"/0"	—	No recovery				<1
13										
14	8	14-16	3-5-6-7	24"/16"	11	Moist, medium dense, olive gray SILT, little fine sand as partings, micaceous				<1
15										
16	9	16-18	8-6-8-10	24"/18"	14	Moist, medium dense, olive gray SILT, little fine sand, trace grayish black (N2), fine to coarse gravel, micaceous				6
17										
18	10	18-20	4-4-6-11	24"/16"	10	Moist, medium dense, olive gray SILT, little fine to coarse sand as partings, trace fine to coarse grayish black, fine gravel, micaceous				19.1
19										

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-2D PAGE 2 OF 3
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/21/92 END DATE: 1/22/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
20	11	20-22	4-6-	24"/12"	20	As above grading to moist, olive gray, fine				2.4
			14-18			to medium SAND, micaceous				
21										
22	12	22-24	3-4-4-7	24"/16"	8	Wet, loose, olive gray, medium to coarse				<1
						SAND, little fine sand, trace fine gravel,				
23						micaceous				
24	13	24-26	9-9-	24"/20"	21	Wet, medium dense, olive gray, medium to				1.2
			12-10			coarse SAND, little fine sand, trace fine to				
25						coarse gravel, micaceous				
							SAND			
26	14	26-28	20-16-	24"/20"	32	Wet, medium dense, olive gray, medium to				<1
			16-17			coarse SAND, little fine sand, trace fine to				
27						coarse gravel, micaceous				
28	15	28-30	18-19-	24"/14"	34	10" wet, medium dense, olive gray, medium to				<1*
			15-12			coarse SAND, little fine sand, trace fine to				
29						coarse gravel, micaceous, grading to coarse				
						SAND and fine gravel, micaceous				
30										
31										
32										
33										
34										
35	16	35-37	10-10-	24"/24"	19	Wet, medium dense, olive gray, fine to medium				<1
			9-11			SAND, micaceous				
36										
37										
38										
39										

* Running sand went to standard sampling.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-2D PAGE 3 OF 3
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/21/92 END DATE: 1/22/92
FILE NO.: 3356.011	FALL: 30"	

BORING COMPANY: Empire Soils
FOREMAN: Jim Nowells
OBG GEOLOGIST: D.E. Broach

LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
40	17	40-42	5-3-3-5	24"/24"	6	Wet, medium dense, olive gray, fine to medium SAND, micaceous	SAND			<1
41										
42	18	42-42.5	100/0.1	24"/0"	—	BEDROCK				
						Bottom of boring 42.5'				
43										
44										
45										
46										
47										
48										
49										
50										

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-22/MW-8
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/4/92
		END DATE: 2/4/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowells		
OBG GEOLOGIST: D.E. Broach		

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0–2	1–2–3–2	24"/16"	5	Dry, loose, moderate brown (5 YR 3/4), fine to medium SAND and silt, fine to coarse gravel (fill)	FILL			<1
1										
2	2	2–4	2–3–2–5	24"/16"	5	4" as above 8" moist, loose, moderate yellowish brown (10 YR 5/4), fine SAND and silt, some medium to coarse sand, micaceous	SAND			<1
3										
4	3	4–6	4–3–2–1	24"/12"	5	Moist, loose, dark yellowish brown (10 YR 4/2) SILT and fine sand, little fine to coarse gravel, black staining, heavy odor, micaceous				120.5*
5										
6	4	6–8	1–7–1–3	24"/16"	8	Wet, loose, dark gray (N3), fine to coarse SAND and silt, some fine to coarse gravel, slight odor, micaceous				73.5
7										
8	5	8–10	7–7–3–6	24"/14"	10	7" wet, loose, dark gray, fine to coarse SAND and silt, some fine to coarse gravel, heavy odor, black staining, micaceous; 7" moist, olive gray SILT, some fine sand				61.5
9										
10	6	10–12	2–3–5–6	24"/0"	8	No recovery, spoon coated with fuel oil	SILT			60.1
11										
12	7	12–14	7–6–5–2	24"/20"	11	Wet, loose, olive gray SILT and fine sand, micaceous				61.5*
13										
14	8	14–15	8–7	24"/6"	—	Wet, loose, olive gray SILT and fine sand, micaceous				
15						Bottom of boring 15.0'				
16										
17										
18										
19										
20										

* Samples submitted for laboratory analyses.
Free product in borehole. Boring converted to MW-8.
All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-3D PAGE 1 OF 2
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/23/92 END DATE: 1/23/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

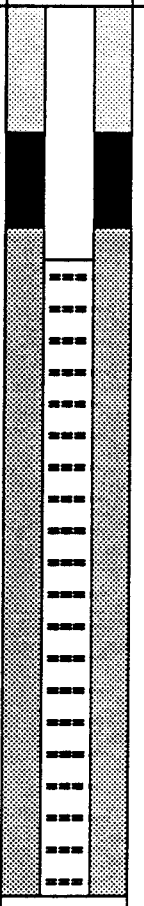
DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	4-4-5	18"/12"	8					<1
1						Dry, loose, black, fine to coarse SAND, some silt, little fine to coarse gravel, micaceous	FILL			
2	2	2-4	7-5-	24"/14"	19	Dry, medium dense, dark yellowish brown (10 YR 4/2), fine to medium SAND, some silt, little clay and fine gravel, micaceous				<1
3			14-24							
4	3	4-6	4-9-	24"/12"	34	Dry, dense, dark yellowish brown, fine to coarse SAND, some fine to coarse gravel, little silt, micaceous	SAND			<1
5			25-24							
6	4	6-8	10-15-	24"/16"	30	Dry, dense, dark yellowish brown, fine to coarse SAND, some fine to coarse gravel, little silt, micaceous				<1
7			15-15							
8	5	8-10	6-5-3-4	24"/16"	8	Wet, loose, olive gray (5 Y 4/1) SILT, micaceous, low plasticity, low dilatency				<1
9										
10	6	10-12	5-2-4-3	24"/0"	6	No recovery				<1
11							SILT			
12	7	12-14	5-8-7-7	24"/14"	15	Wet, medium dense, olive gray SILT, some clay, fine to coarse sand lenses, micaceous				17.4
13										
14	8	14-16	WOH-1-	24"/16"	5	Wet, loose, olive gray SILT grading to wet, loose, moderate yellowish brown, fine to coarse SAND, little fine to coarse gravel, micaceous				<1
15			4-4							
16	9	16-18	5-6-6-6	24"/18"	12	Wet, medium dense, olive gray, fine to coarse SAND, little fine to coarse gravel, micaceous	SAND			<1
17										
18	10	18-20	6-6-5-7	24"/18"	11	Wet, medium dense, olive gray, fine to coarse SAND, little fine to coarse gravel, micaceous				<1
19										

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-3D PAGE 2 OF 2
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/23/92 END DATE: 1/23/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
20	11	20-22	17-27-	24"/18"	45	Wet, dense, olive gray, fine to coarse SAND,				<1
			18-19			little fine to coarse gravel, micaceous				
21										
22										
23							SAND			
24										
25	12	25-27	70-20-	24"/18"	48	Dry, dense, olive gray, fine to coarse SAND,				<1
			28-28			little fine to coarse gravel, micaceous				
26										
27										
28										
						BEDROCK				
29	13	29-29.1	100/0.1	24"/0"	—	No recovery				
						Bottom of boring 29.0'				
30										
31										
32										
33										
34										
35										

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-4 PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/12/92 END DATE: 2/12/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0						For soil description see test boring log for MW-4D				
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3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14						Bottom of boring 14.0'				
15										
16										
17										
18										
19										
20										

DEB:cmb/ITT011.24

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-4D
		PAGE 1 OF 2
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/11/92
		END DATE: 2/11/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowells		
OBG GEOLOGIST: D.E. Broach		

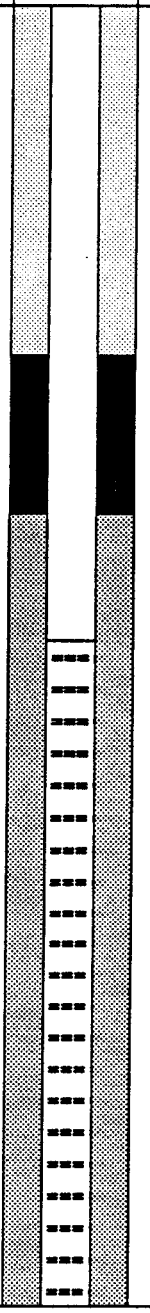
DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	70-50-25	18"/18"	120	ASPHALT				<1
						Dry, very dense, BLACK (NI), fine to coarse				
1						SAND and fine to coarse gravel (fill)				
							FILL			
2	2	2-4	20-15-	24"/18"	30	Dry, dense, dusky brown (5 YR 2/2), fine to				<1
			15-20			coarse SAND and fine to coarse gravel (fill)				
3										
4	3	4-6	1-1-1-1	24"/10"	2	Moist, very loose, dusky brown SILT, some fine				<1
						sand, plant matter, micaceous				
5										
6	4	6-8	3-6-9-9	24"/16"	15	6" as above; 10" moist, medium dense, olive				<1
						gray (5 Y 4/1) SILT, some fine sand in lamin-				
7						ations, micaceous				
8	5	8-10	4-5-5-10	24"/18"	10	Moist, medium dense, olive gray SILT, some	SILT			<1
						fine sand in laminations, micaceous				
9										
10	6	10-12	5-3-7-9	24"/18"	10	16" wet, loose, olive gray SILT, some fine				<1
						sand in laminations; 2" wet, olive gray,				
11						fine to coarse SAND, some silt, micaceous				
12	7	12-14	3-3-3-5	24"/12"	6	Wet, loose, olive gray, fine to coarse SAND,				<1
						some silt, micaceous				
13										
14	8	14-16	12-7-5-5	24"/4"	12	Wet, medium dense, olive gray, fine to coarse				<1
						SAND, some silt, micaceous	SAND			
15										
16	9	16-18	7-7-	24"/24"	28	12" as above; 12" wet, medium dense, moder-				<1
			21-40			ate yellowish brown (10 YR 5/4), fine to				
17						coarse SAND, little fine to coarse gravel,				
						light brown (5 YR 5/6) staining, micaceous				
18	10	18-20	——	——	—	No recovery, running sand				
19										
20	11	20-22	3-3-5-8	24"/24"	8	22" as above				<1
						2" wet, loose, moderate yellow brown, coarse				
21						SAND, some fine gravel, micaceous				

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-4D PAGE 2 OF 2
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/11/92 END DATE: 2/11/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
22	12	22–24	2–3–4–5	24"/24"	7	Wet, loose, moderate yellow brown, fine to coarse SAND, some fine to coarse gravel in lenses, micaceous				<1
23										
24	13	24–39	——	——	—	No samples from 24–39' due to running sands				
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39	14	39–41	35–44–100/0	24"/16"	—	Wet, very dense, moderate yellow brown, medium to coarse SAND and fine sand, some fine to coarse gravel, angular rock fragments in gravel, micaceous				<1
40										
41						Bottom of boring 41.0'				
42										

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-5 PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/28/92 END DATE: 1/28/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0						For soil description see test boring log for B-17 and B-19				
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16										
17										
18										
19										
20										

Bottom of boring 20.0'

DEB:cmb/ITT011.25

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-22/MW-8
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/4/92
		END DATE: 2/4/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowelle		
OBG GEOLOGIST: D.E. Broach		

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	1-2-3-2	24"/16"	5	Dry, loose, moderate brown (5 YR 3/4), fine to medium SAND and silt, fine to coarse gravel (fill)	FILL			<1
1										
2	2	2-4	2-3-2-5	24"/16"	5	4" as above	SAND			<1
3						8" moist, loose, moderate yellowish brown (10 YR 5/4), fine SAND and silt, some medium to coarse sand, micaceous				
4	3	4-6	4-3-2-1	24"/12"	5	Moist, loose, dark yellowish brown (10 YR 4/2) SILT and fine sand, little fine to coarse gravel, black staining, heavy odor, micaceous				120.5*
5										
6	4	6-8	1-7-1-3	24"/16"	8	Wet, loose, dark gray (N3), fine to coarse SAND and silt, some fine to coarse gravel, slight odor, micaceous				73.5
7										
8	5	8-10	7-7-3-6	24"/14"	10	7" wet, loose, dark gray, fine to coarse SAND and silt, some fine to coarse gravel, heavy odor, black staining, micaceous; 7" moist, olive gray SILT, some fine sand				61.5
9										
10	6	10-12	2-3-5-6	24"/0"	8	No recovery, spoon coated with fuel oil	SILT			60.1
11										
12	7	12-14	7-6-5-2	24"/20"	11	Wet, loose, olive gray SILT and fine sand, micaceous				61.5*
13										
14	8	14-15	8-7	24"/6"	—	Wet, loose, olive gray SILT and fine sand, micaceous				
15						Bottom of boring 15.0'				
16										
17										
18										
19										
20										

* Samples submitted for laboratory analyses.

Free product in borehole. Boring converted to MW-8.

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING RW-1
PAGE 1 OF 1

CLIENT: ITT Sealectro
PROJECT LOCATION: Mamaroneck, NY
FILE NO.: 3356.011

SAMPLER 3" Split Spoon
HAMMER: 140 lbs.
FALL: 30"

LOCATION:
START DATE: 2/10/92
END DATE: 2/10/92

BORING COMPANY: Empire Soils
FOREMAN: Jim Nowells
OBG GEOLOGIST: D.E. Broach

LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	1-1-3-4	24"/0"	4	No recovery				
1										
2	2	2-4	1-1-1-2	24"/0"	2	No recovery				
3										
4	3	4-6	1-1-1-2	24"/12"	2	6" moist, very loose, dusky brown (5 YR 2/2), fine to coarse SAND and silt, some fine to coarse gravel, micaceous; 6" moist, dusky brown and medium gray (N5) SILT and fine to				
5										
6	4	6-8	1-2-1-2	24"/18"	3	coarse sand, some fine to coarse gravel, black staining, heavy odor, micaceous				
7						10" as above; 8" wet, dusky brown SILT and fine sand, plant matter, micaceous				
8	5	8-10	1-1-1-2	24"/12"	2	4" as above; 8" wet, very loose, olive gray (5 Y 4/1), fine to coarse SAND, some silt,				
9										
10	6	10-12	2-3-4-5	24"/16"	7	little fine to coarse gravel, micaceous, heavy odor, black staining Wet, loose, olive gray, fine to coarse SAND, some silt, little fine to coarse gravel, heavy				
11						odor, black staining, micaceous	SAND			
12	7	12-14	4-4-5-6	24"/18"	9	Wet, loose, olive gray, fine to coarse SAND, some silt, little fine to coarse gravel, heavy				
13						odor, black staining, micaceous				
14						Bottom of boring 14.0'				
15										
16										
17										
18										
19										
20										

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-11
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/28/92
		END DATE: 1/28/92
FILE NO.: 3356.011	FALL: 30"	

BORING COMPANY: Empire Soils
FOREMAN: Jim Nowells
OBG GEOLOGIST: D.E. Broach

LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	13-12-10	18"/18"	25	ASPHALT				
						Dry, moderate yellow brown (10 YR 5/4), fine to				<1
1						coarse SAND, some fine to coarse gravel				
						6" dry, black (N1), fine to coarse gravel (fill)				
2	2	2-4	8-8-10-5	24"/6"	18	Dry, medium dense, black, fine to coarse SAND,				<1
						some fine to coarse gravel (fill)	FILL			
3										
4	3	4-6	4-3-3-3	24"/12"	6	4" moist, loose, moderate yellow brown (10 YR				<1
						5/4), fine to coarse SAND, some fine to coarse				
5						gravel; 6" moist, black, fine to coarse SAND,				
						some fine to coarse gravel, micaceous; 2" wet,				
6	4	6-8	6-4-4-4	24"/12"	8	olive gray SILT, micaceous				19.5
						Wet, loose, olive gray (5 YR 4/1), fine to med-				
7						ium SAND, some coarse sand, little silt, trace				
						gravel, strong odor, micaceous				
8	5	8-10	3-4-5-7	24"/16"	9	12" wet, loose, olive gray, fine to medium				6.1
						SAND, some coarse sand, micaceous; 4"				
9						moist, medium gray (105) SILT, little fine				
						sand, micaceous				
10	6	10-12	3-4-7-9	24"/16"	11	Moist, medium gray SILT, little fine sand,				<1
						micaceous				
11										
12						Bottom of boring 12.0'				
13										
14										
15										
16										
17										
18										
19										
20										

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-12
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/27/92
		END DATE: 1/27/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowells		
OBG GEOLOGIST: D.E. Broach		

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	12-8-10	18"/6"	20	ASPHALT				
						Dry, black (N1), fine to coarse SAND, some fine to coarse gravel (fill)				1.3
1										
2	2	2-4	4-4-2-2		6	Dry, black, fine to coarse SAND, some fine to coarse gravel (fill)	FILL			<1
3										
4	3	4-6	2-2-2-4	24"/16"	4	Dry, olive gray (5 Y 4/1) SILT, some fine sand, micaceous				<1
5										
6	4	6-8	6-7-6-12	24"/16"	13	Moist, medium dense, olive gray SILT, some fine sand grading downward to wet, olive gray, coarse SAND, heavy odor, micaceous				54.5
7										
8	5	8-10	9-2-3-4	24"/16"	5	Moist, loose, olive gray, coarse SAND, heavy odor, micaceous				61.5
9										
10	6	10-12	2-3-4-5	24"/4"	7	Wet, loose, olive gray SILT, some fine to coarse sand, micaceous				9.5
11										
12	7	12-14	4-5-6-6	24"/16"	11	Wet, loose, olive gray SILT, some fine to coarse sand, micaceous				<1
13										
14						Bottom of boring 14.0'				
15										
16										
17										
18										
19										
20										

Samples S-2 (6-8') and S-4 (10-14') submitted for laboratory analyses.
All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-13
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/28/92
		END DATE: 1/28/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowells		
OBG GEOLOGIST: D.E. Broach		

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	———	———	—	ASPHALT				<1
						No recovery – coarse GRAVEL				
1										
2	2	2-4	4-3-3-6	24"/12"	6	Dry, loose, black (N1), fine to coarse SAND,	FILL			<1
						some fine to coarse gravel (fill)				
3										
4	3	4-6	4-2-3-6	24"/16"	5	Moist, medium gray (N5) SILT and fine sand,				<1
						some moderate yellow brown (10 YR 5/4) mottl-	SILT			
5						ing in silt, micaceous, grading downward to				
						fine to coarse SAND, micaceous				
6	4	6-8	4-2-3-5	24"/16"	5	10" wet, loose, medium gray, fine to coarse	SAND			<1
						SAND; 6" wet, dusky brown (5 YR 2/2) SILT,				
7						some fine to coarse sand, micaceous				
8	5	8-10	4-2-3-3	24"/0"	5	No recovery				<1
							SILT			
9										
10	6	10-12	4-7-7-10	24"/18"	14	Moist, loose, olive gray (5 YR 4/1) SILT,				<1
						little fine sand, micaceous				
11										
12						Bottom of boring 12.0'				
13										
14										
15										
16										
17										
18										
19										
20										

All colors from Munsell color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-14
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/31/92
		END DATE: 1/31/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowells		
OBG GEOLOGIST: D.E. Broach		

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	5-6-3	18"/6"	11	ASPHALT				
1						Dry, black (N1), medium dense, fine to coarse SAND and fine to coarse gravel, some silt (fill)	FILL			
2	2	2-4	2-2-6-15	24"/20"	8	Moist, loose, moderate brown (5 YR 3/4), fine to medium SAND and silt, little fine to coarse gravel, micaceous				<1
3										
4	3	4-6	10-12-8-2	24"/16"	20	6" as above; 8" moist, medium dense, dark yellowish brown (10 YR 4/2), fine to coarse SAND, some silt, micaceous; 2" moist, medium dense, moderate red brown, fine SAND, little silt, micaceous				<1
5										
6	4	6-8	3-4-5-5	24"/20"	9	14" as above; 4" wet, loose, olive gray (5 YR 4/1), fine to coarse SAND, little silt; 2" moist, moderate red brown, fine SAND, little silt, micaceous				<1*
7										
8	5	8-10	2-2-2-2	24"/24"	4	6" wet, very loose, olive gray, fine to coarse SAND, some fine to coarse gravel, little silt; 8" moist, olive gray, fine SAND and silt, micaceous				<1
9										
10	6	10-12	1-1-5-3	24"/6"	6	Wet, loose, fine to coarse SAND and fine to coarse gravel, sheen on sample, micaceous				<1
11										
12	7	12-14	4-4-5-6	24"/24"	9	6" wet, loose, olive gray, fine to coarse SAND and fine to coarse gravel, micaceous; 18" moist, olive gray, fine SAND and silt, micaceous				NOTE
13										
14	8	14-16	WH-WH-WH-2	24"/18"	—	No recovery				<1
15										
16	9	16-18	2-5-8-12	24"/18"	13	6" moist, loose, olive gray, fine SAND and silt, micaceous; 12" moist, olive gray, fine to medium SAND, some silt, micaceous				<1*
17										
18						Bottom of boring 18.0'				
19										
20										

NOTE 13 ppm in gravel, 0.3 ppm in silty sand

* Samples submitted for laboratory analyses.

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-15 PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/3/92 END DATE: 2/3/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0.5–2	6–6–7	18"/12"	12	ASPHALT	0.5'			
						Dry, loose, dark yellow brown (10 YR 4/2) to				<1*
1						black (N1), fine to coarse SAND and silt, some				
						fine to coarse gravel (fill)				
2	2	2–4	6–12–	24"/5"	22	Dry, loose, dark yellow brown to black, fine	FILL			<1*
			10–7			to coarse SAND and silt, some fine to coarse				
3						gravel (fill)				
4	3	4–6	12–36–	24"/12"	46	6" as above				<1*
			10–12			6" rock fragments, micaceous				
5										
6	4	6–8	6–10–	24"/12"	19	Moist, medium dense, olive gray (5 Y 4/1)				<1
			9–11			SILT and fine sand, some medium to coarse sand,				
7						little fine to coarse gravel, iron staining,				
						micaceous	SILT			
8	5	8–10	3–6–6–3	24"/0"	12	No recovery				<1
9										
10	6	10–12	1–1–1–1	24"/0"	2	No recovery				<1
11										
12	7	12–14	3–4–4–5	24"/4"	8	Wet, loose, olive gray SILT and fine to coarse				<1
						sand, some fine to coarse gravel, micaceous				
13										
14						Bottom of boring 14.0'				
15										
16										
17										
18										
19										
20										

* Samples submitted for laboratory analyses (S–3 and S–5 field duplicate).

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-16
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE:
		END DATE:
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowells		
OBG GEOLOGIST: D.E. Broach		

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	10-10-12	18"/12"	20	ASPHALT				<1
						Dry, medium dense, black (N1), fine to coarse				
1						SAND, some fine to coarse gravel (fill)	FILL			
2	2	2-4	6-6-6-4	24"/18"	12	14" dry, loose, olive gray (5 Y 4/1) SILT,				<1*
						some fine sand, little medium to coarse sand,				
3						trace fine to coarse gravel, micaceous; 4" dry,				
						black and moderate yellow brown (10 YR 5/4)				
4	3	4-6	10-100/.5	24"/0"	—	SILT and fine sand, micaceous				—
						No recovery				
5										
6	4	6-8	1-4-3-5	24"/6"	7	Wet, loose, olive gray SILT, some fine sand,				<1
						micaceous				
7							SILT			
8	5	8-10	4-5-5-5	24"/0"	10	No recovery				—
9										
10	6	10-12	6-5-4-5	24"/8"	9	Wet, loose, olive gray SILT and fine sand,				<1
						micaceous				*
11										
12	7	12-14	4-5-6-10	24"/24"	11	Wet, loose, olive gray SILT and fine sand,				<1
						grading to wet, olive gray, fine to medium				
13						SAND, micaceous, iron staining	SAND			
14						Bottom of boring 14.0'				
15										
16										
17										
18										
19										
20										

* Samples submitted for laboratory analyses.

All colors from Munsell color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-17
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/5/92
		END DATE: 2/5/92
FILE NO.: 3356.011	FALL: 30"	

BORING COMPANY: Empire Soils
FOREMAN: Jim Nowells
OBG GEOLOGIST: D.E. Broach

LEGEND: Grout, Sand Pack, Pellets, == Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	1-1-1-1	24"/6"	2	Wet, very loose, dark yellowish brown (10 YR 4/2), fine to coarse SAND and silt, little fine to coarse gravel, micaceous	SAND			200.1*
1										
2	2	2-4	1-1-1-1	24"/6"	2	Wet, very loose, dark yellowish brown, fine to coarse SAND and silt, little fine to coarse gravel, micaceous				250.7
3										
4	3	4-6	4-2-2-3	24"/12"	4	6" as above 6" moist, loose, dusky brown (5 YR 2/2) SILT and fine sand, little medium to coarse sand, plant matter, micaceous	SILT			253.3
5										
6	4	6-8	3-5-7-8	24"/24"	12	16" as above 8" wet, loose, olive gray (5 Y 4/1) SILT and fine sand, little medium to coarse sand, heavy odor, micaceous				251*
7										
8	5	8-10	3-5-8-10	24"/10"	13	Wet, loose, olive gray SILT and fine sand, little medium to coarse sand, heavy odor, micaceous				341*
9										
10	6	10-12	8-14-12-10	24"/12"	26	Wet, loose, olive gray SILT and fine sand, little medium to coarse sand, heavy odor, micaceous				346
11										
12						Bottom of boring 12.0'				
13										
14										
15										
16										
17										
18										
19										
20										

* Samples submitted for laboratory analyses.
Boring started 3' below grade due to excavation.
All colors from Munsell rock color chart.

EB:cmb/ITT011.15

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-18 PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/7/92 END DATE: 2/7/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	35-100/4	18"/4"	——	ASPHALT				<1
1						Dry, very dense, black (NI), fine to coarse SAND and fine to coarse gravel (fill)	FILL			
2	2	2-4	18-16-	24"/10"	34	Dry, dense, dusky brown (5 YR 2/2), fine to coarse SAND and fine to coarse gravel, micaceous				<1
			18-15							
3										
4	3	4-6	2-3-3-3	24"/0"	6	No recovery				<1
5										
6	4	6-8	4-4-4-4	24"/24"	8	12" moist, loose, olive gray (5 Y 4/1) SILT and fine to medium sand; 12" moist, loose, dusky brown SILT and fine sand, peat laminations, micaceous				<1*
7										
8	5	8-10	3-15-9-6	24"/4"	24	Wet, medium dense, olive gray SILT and fine sand, some medium to coarse sand, micaceous				<1
9										
10	6	10-12	5-6-	24"/20"	18	6" wet, medium dense, fine to coarse SAND and fine gravel, micaceous; 14" moist, olive gray SILT and fine sand, micaceous				<1
			12-14							
11										
12	7	12-14	15-18-	24"/24"	36	Wet, dense, olive gray, fine to coarse SAND and fine gravel, micaceous				<1*
			18-20							
13										
14						Bottom of boring 14.0'				
15										
16										
17										
18										
19										
20										

* Samples submitted for laboratory analyses (6-S as field duplicate, S-2 and S-5).

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-19
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 1/30/92
		END DATE: 1/30/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowells		
OBG GEOLOGIST: D.E. Broach		

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	11-17-15	18"/8"	28	6" ASPHALT				
						Dry, medium dense, grayish brown (5 YR 3/2),				<1
1						fine to coarse SAND, some fine to coarse gravel				
						(fill)				
2	2	2-4	12-5-6-6	24"/0"	11	No recovery	FILL			
3										
4	3	4-6	2-2-2-2	24"/6"	4	Moist, very loose, olive gray (5 Y 4/1) SILT,				125.4
						some fine sand, wood chips, micaceous				
5							SILT			
6	4	6-8	3-3-3-5	24"/16"	6	10" as above; 2" wet, loose, olive gray, fine				125.4
						to coarse SAND, some fine gravel; 4" moist,				7.5
7						dusky brown (5 YR 2/2) PEAT				
8	5	8-10	WOH-2-	24"/24"	5	6" as above; 12" moist, loose, olive gray,				147.5*
			3-4			fine to medium SAND, some silt, little coarse				
9						sand, wood chips, micaceous				
							SAND			
10	6	10-12	1-3-4-7	24"/6"	7	Moist, loose, olive gray, fine SAND, some				9.1
						silt, trace medium to coarse sand, peat lamin-				
11						ations, micaceous				
12	7	12-14	14-16-	24"/0"	38	No recovery (heavy odor)				
			22-26							
13										
14	8	14-16	7-6-	24"/24"	22	Moist, medium dense, olive gray, fine SAND,				14
			16-16			some silt, micaceous				
15										
16	9	16-18	4-7-	24"/16"	24	Moist to dry, olive gray SILT and fine sand,				16.9
			17-17			trace medium sand in laminatione, micaceous				
17										
18	10	18-20	6-7-9-11	24"/16"	16	Wet, medium dense, olive gray SILT and fine	SILT			10*
						sand, some medium sand, micaceous				
19										
20	11	20-22	6-6-6-7	24"/12"	12	Wet, medium dense, olive gray, fine to coarse				59.9
						SAND, some silt, little fine to coarse gravel,				
21						micaceous	SAND			
22						Bottom of boring 22.0'				

* Samples submitted for laboratory analyses. All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-20
		PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/6/92
		END DATE: 2/6/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser
FOREMAN: Jim Nowells		
OBG GEOLOGIST: D.E. Broach		

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	3-4-4	18"/2"	7	Dry, loose, black (N1) CINDERS and SLAG (fill)				7.1*
1							FILL			
2	2	2-4	5-14-7-8	24"/8"	21	Dry, loose, black CINDERS and SLAG				7
3										
4	3	4-6	5-8-7-4	24"/2"	15	Moist, loose, olive gray (5 Y 4/1) SILT and fine sand, micaceous				<1
5										
6	4	6-8	5-4-4-7	24"/0"	8	No recovery, cinders/slag caved in borehole				
7							SAND			
8	5	8-9	4-4-7-9	24"/0"	11	No recovery, cinders/slag caved in borehole				
9	6	9-11	5-5-5-5	24"/6"	10	Wet, loose, olive gray, fine to medium SAND, micaceous				19.2
10										
11	7	11-13	5-9-	24"/8"	20	2" wet, loose, olive gray, fine to coarse				123.5
			11-13			SAND, some fine to coarse gravel, micaceous				
12						6" moist, olive gray SILT and fine sand, micaceous	SILT			
13						Bottom of boring 13.0'				
14										
15										
16										
17										
18										
19										
20										

* A composite of all of the samples was submitted for laboratory analyses due to the small amount of retrieved material.

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-21 PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/4/92 END DATE: 2/4/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	1-2-4-3	24"/20"	6	14" dry, loose, dusky brown (5 YR 2/2), fine to medium SAND and silt (top soil); 6" dry, loose, dark yellowish brown (10 YR 4/2), fine to medium SAND and silt, some coarse, little	FILL			<1
1										
2	2	2-4	6-10-4-3	24"/16"	14	fine to coarse gravel 10" as above				<1
3						6" dry, loose, black CINDERS and slag				
4	3	4-6	1-1-3-3	24"/15"	4	6" moist, very loose, dark yellowish brown, fine SAND and silt, some medium to coarse sand, black staining, micaceous	SAND			<1
5										
6	4	6-8	2-2-3-3	24"/20"	5	8" as above 12" wet, loose, olive gray (5 Y 4/1), fine SAND and silt, trace medium to coarse sand, micaceous				51.5*
7										
8	5	8-10	1-2-4-6	24"/16"	6	Moist, loose, moderate brown (5 YR 4/4) SILT and fine sand, some clay, plant matter, micaceous	SILT			12.5
9										
10	6	10-12	4-4-6-9	24"/20"	10	Moist, loose, medium dark gray (N4), fine SAND and silt, laminations of medium sand, micaceous	SAND			<1*
11										
12	7	12-14	5-12-15-12	24"/16"	27	As above grading to wet, medium to coarse SAND, some fine sand, little silt, micaceous				11.1
13										
14						Bottom of boring 14.0'				
15										
16										
17										
18										
19										
20										

* Samples submitted for laboratory analyses.

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-23 PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/7/92 END DATE: 2/7/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	62-25-15	18"/16"	87	ASPHALT				<1
						6" dry, very dense, black (NI), fine to coarse				
1						SAND and fine to coarse gravel; 10" dry, dusky				
						brown (5 YR 2/2) SILT and fine sand, some med-				
2	2	2-4	25-24-	24"/16"	49	ium to coarse sand, little fine to coarse gravel				<1*
			25-50			Dry to moist, dense, moderate yellow brown				
3						(5 YR 3/4), fine to coarse SAND, some fine to				
						coarse gravel, micaceous				
4	3	4-6	4-5-5-8	24"/0"	10	No recovery				
5										
6	4	6-8	14-12-	24"/4"	24	Moist, medium dense, dusky brown, olive gray				<1*
			12-12			(5 Y 4/1) and moderate yellow brown SILT and				
7						fine sand, little medium to coarse sand,				
						trace fine to coarse gravel, micaceous				
8	5	8-10	2-8-9-9	24"/2"	17	Wet, medium dense, olive gray SILT and fine				<1
						sand, micaceous				
9										
10						Bottom of boring 10.0'				
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

* Samples submitted for laboratory analyses.

All colors from Munsell rock color chart.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING B-24 PAGE 1 OF 1
CLIENT: ITT Sealectro	SAMPLER 3" Split Spoon	LOCATION:
PROJECT LOCATION: Mamaroneck, NY	HAMMER: 140 lbs.	START DATE: 2/10/92 END DATE: 2/10/92
FILE NO.: 3356.011	FALL: 30"	
BORING COMPANY: Empire Soils FOREMAN: Jim Nowells OBG GEOLOGIST: D.E. Broach		LEGEND: Grout, Sand Pack, Pellets, == Screen, Riser

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING PID	FIELD TESTING HNU
0	1	0-2	2-3-4-3	24"/6"	7	Dry, loose, dusky brown (5 YR 2/2) SILT and fine sand, some medium to coarse sand, little fine to coarse gravel, micaceous				40.5
1										
2	2	2-4	10-7-1-2	24"/6"	8	Moist, loose, moderate yellowish brown (10 YR 5/4) SILT and fine sand, some medium to coarse sand, little fine to coarse gravel, micaceous				46.5
3										
4	3	4-6	1-1-1-1	24"/6"	2	Moist, very loose, dusky brown SILT and fine sand, little medium to coarse sand, micaceous				55.1
5										
6	4	6-8	1-5-5-6	24"/24"	10	12" moist, loose, dusky brown SILT and fine sand, little medium to coarse sand, micaceous				95
7						12" moist, olive gray (5 Y 4/1) SILT and fine sand, micaceous				
8	5	8-10	3-4-4-4	24"/20"	8	Moist, loose, olive gray SILT and fine sand, micaceous, iron staining				<1
9										
10	6	10-12	2-2-3-3	24"/16"	5	Moist, loose, olive gray SILT and fine sand, micaceous				<1
11										
12	7	12-14	5-5-7-7	24"/24"	12	Wet, loose, olive gray SILT and fine sand, micaceous				<1
13										
14	8	14-16	1-2-3-3	24"/16"	5	Wet, loose, olive gray SILT and fine sand, micaceous				<1
15										
16	9	16-18	4-2-2-3	24"/24"	4	Wet, moderate yellow brown, medium SAND, some fine sand, micaceous				<1
17										
18						Bottom of boring 18.0'				
19										
20			Not							

Monitoring well not installed due to encountering product.
All colors from Munsell rock color chart.

APPENDIX C

PID CALIBRATION FORMS

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/20/92

Type of Equipment: TET 580A - OVM

Equipment Serial #: 580A - 2387 - 213

Reason for Calibration: Daily Calibration

Method of Calibration: Isobutylene

Gas Concentration:

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: [redacted]

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/21/92

Type of Equipment: TEI 580A OVM

Equipment Serial #: 580A - 23987 - 213

Reason for Calibration: Daily calibration

Method of Calibration: Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: David G Burnett

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/22/92

Type of Equipment: TEI 580A OVM

Equipment Serial #: 580A 03987-213

Reason for Calibration: Daily Cal.

Method of Calibration: Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: David E Burk

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/22/92

Type of Equipment: TET 580A - OVM

Equipment Serial #: 580A - 23987 - 213

Reason for Calibration: Daily Calibration

Method of Calibration: Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: Daniel E. Runck

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/24/92

Type of Equipment: TET 580A OVM

Equipment Serial #: 580A - 23987 - 213

Reason for Calibration: Daily Calibration

Method of Calibration: 40 bottle/hour

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: David E Reed

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/27/92

Type of Equipment: E I E 580A OVM

Equipment Serial #: 580A - 23987 - 213

Reason for Calibration: Daily calibration

Method of Calibration: Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: Daniel E Brant

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/28/92

Type of Equipment: TEI model 580A OVM

Equipment Serial #: 580A - 23987 - 213

Reason for Calibration: Daily calibration

Method of Calibration: Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: Daniel E Burns

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/29/92

Type of Equipment: TEI model 580A OVM

Equipment Serial #: 580A - 23987 - 213

Reason for Calibration: Daily calibration

Method of Calibration: 100 ppm Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: Donald E Brunt

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 1/30/92

Type of Equipment: TEF model 580A OVM

Equipment Serial #: 580A-23487-213

Reason for Calibration: Daily Cal.

Method of Calibration: 100 ppm Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: Daniel E Brand

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 2/2/94

Type of Equipment: TEI model 580A OVM

Equipment Serial #: 580A-23987-213

Reason for Calibration: Daily Cal.

Method of Calibration: 100 ppm Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: Daniel G Bruce

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 2/3/92

Type of Equipment: TEI Model 580A OVM

Equipment Serial #: 580A-23987-213

Reason for Calibration: Daily Cal.

Method of Calibration: 100 ppm Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: [signature]

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 2/4/92

Type of Equipment: 3356.011 TEI model 580A-ovn

Equipment Serial #: 580A -23987-213

Reason for Calibration: Daily Cal.

Method of Calibration: 100 ppm Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 100 ppm

Final Reading: 100 ppm

Signature: Daniel S Rand

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 2/5/92

Type of Equipment: TEI Model 580A OVM

Equipment Serial #: 580A -23987-213

Reason for Calibration: Daily Cal.

Method of Calibration: 100 ppm Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 85 ppm

Final Reading: 100 ppm

Signature: Daniel G Bruce

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 2/6/92

Type of Equipment: TEI Model 580A OVM

Equipment Serial #: 580A - 23987-213

Reason for Calibration: Daily Cal.

Method of Calibration: 100 ppm Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 98 ppm

Final Reading: 100 ppm

Signature: Daniel S Bush

Form 3.3

EQUIPMENT CALIBRATION LOG

Date of Calibration: 2/7/92

Type of Equipment: TEI model 580A ovm

Equipment Serial #: 580A-23987-213

Reason for Calibration: Daily cal.

Method of Calibration: 100 ppm Isobutylene

Gas Concentration: 100 ppm

Initial Reading: 95 ppm

Final Reading: 100 ppm

Signature: Daniel S Bond

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 2/11/91

File: 3356.011

Project Phase/Description: MW-4D

Instrument: OVM

Background: 0.0 ppm Location: Breathing Zone

Time	Reading	Time	Reading
0915	0.0 ppm		
1000	0.0 ppm		
1145	0.0 ppm		
1445	0.0 ppm		

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 2/10/92

File: 3356 011

Project Phase/Description: MW-7 MW-7A

Instrument: OVM

Background: 0.0 ppm Location: breathing zone

Time	Reading	Time	Reading
1300	0.0 ppm		
1430	0.0 ppm		
1445	0.0 ppm		
1515	0.0 ppm / 29.9 ppm borehole		

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 2/7/92

File: 3356.011

Project Phase/Description: B-23

Instrument: OVM

Background: 0.0 ppm Location: breathing zone

Time	Reading	Time	Reading
0845	0.0 ppm		
1000	0.0 ppm		

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 2/6/92

File: 3356.011

Project Phase/Description: B-20

Instrument: OVM

Background: 3.9 ppm Location: breathing zone

Time	Reading	Time	Reading
1025	3.9 ppm		
1100	2.5 ppm		
1440	4.1 ppm		
1500	5.8 ppm		

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 2/5/92

File: 3356.06

Project Phase/Description: B-17

Instrument: _____

Background: _____ Location: _____

Time	Reading	Time	Reading
Noon	0.0 ppm		
1500	0.0 ppm		

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 2/4/92

File: 3356.011

Project Phase/Description: B-21

Instrument: _____

Background: _____ Location: _____

Time	Reading	Time	Reading
0810	0.0 ppm		
0900	0.0 ppm		
0930	0.0 ppm		
1230	0.0 ppm		
1300	0.0 ppm		
1310	0.0 ppm		

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 2/3/92

File: 3356.011

Project Phase/Description: B-16, B-15

Instrument: OVM

Background: 0.0 ppm Location: breathing zone

Time	Reading	Time	Reading
1300	0.0 ppm		
1340	0.0 ppm		
1445	0.0 ppm		

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 1/31/92

File: 3356.011

Project Phase/Description: B-14

Instrument: OVM

Background: 0.0 ppm Location: breathing zone

Time	Reading	Time	Reading
0800	0.0 ppm		
0830	45 ppm		
0845	0.5 ppm		
1000	0.0 ppm		
1100	0.0 ppm		

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 1/30/92

File: 3356.011

Project Phase/Description: B-19

Instrument: OVM

Background: 0.0 ppm Location: breathing zone

Time	Reading	Time	Reading
1045	0.0 ppm		
1150	0.0 ppm		
1310	0.0 ppm		
1400	0.0 ppm		

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 1/29/92

File: 3356.011

Project Phase/Description: mw-5

Instrument: OVM

Background: 0 ppm Location: breathing zone

Time	Reading	Time	Reading
0900	0 ppm		
0900	0 ppm		
0915	1.5 ppm		
1000	0 ppm		
1100	0 ppm		

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 1/28/92

File: 3356.011

Project Phase/Description: B-11 & MW-5

Instrument: OVM

Background: 0 ppm Location: breathing zone

Time	Reading	Time	Reading
0830	0 ppm	1500	0 ppm
0930	0 ppm	1700	0 ppm
1015	0 ppm		
1100	0 ppm		
1130	0 ppm		
Moved to MW-5			
1300	0 ppm		
1330	0 ppm		
1345	0 ppm		
1400	0 ppm		

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 1/27/92

File: 3356.011

Project Phase/Description: B-12

Instrument: OVM

Background: 0 ppm Location: breathing zone

Time	Reading	Time	Reading
1430	0 ppm		
1530	0 ppm		

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 1/23/92

File: 3356.011

Project Phase/Description: MW-3D

Instrument: OVM

Background: 0 ppm Location: breathing zone

Time	Reading	Time	Reading
0800	0 ppm		
0900	0ppm		
1000	0 ppm		
1030	0ppm		
1130	0ppm		
1330	0ppm		
1445	0ppm		
1530	0ppm		
1645	0 ppm		

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 1/22/92

File: 3356.011

Project Phase/Description: MW-2D

Instrument: OVM

Background: 0 ppm Location: breathing zone

Time	Reading	Time	Reading
0800	0 ppm		
0900	0 ppm		
1000	0 ppm		
1100	0 ppm		
1200	0 ppm		
1400	0 ppm		
1500	0 ppm		
1600	0 ppm		
1700	0 ppm		

Form 3.4

ENVIRONMENTAL MONITORING LOG
(Daily)

Date: 1/20/92

File: 3356.011

Project Phase/Description: MW-2D

Instrument: OVM

Background: 0 ppm

Location: breathing zone MW-2D

Time	Reading	Time	Reading
1400	0 ppm		
1500	0 ppm		
1630	0 ppm		

APPENDIX D

CHAIN OF CUSTODY FORMS

O'BRIEN & GERE ENGINEERS, INC.

Office: O'Brien & Gere Eng.
5000 Brittonfield Pkwy
Address: Syracuse N.Y.
Phone: (315) 437-6100

CHAIN OF CUSTODY

CLIENT: ITT Sealectro
LOCATION: Mamaroneck N.Y.

COLLECTED BY: David E. Brach
(Signature) David E. Brach

	SAMPLE DESCRIPTION		Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
✓	B-12	S-2	6-8'	1/27/92	1515	Soil	grab	1	6000/7000 418.1
✓	B-12	S-2	6-8'	1/27/92	1515	Soil	grab	2	8010/8020
✓	B-12	S-2	6-8'	1/27/92	1515	Soil	grab	1	6000/7000 418.1 semi volatiles PCBs ASAP CLP
	B-12	S-3	8-10'	1/27/92	1520	Soil	grab	1	8240
	B-12	S-3	8-10'	1/27/92	1520	Soil	grab	2	8240 ASAP CLP
✓	B-12	S-4	10-14	1/27/92	1540	Soil	Comp.	1	6000/7000 418.1
✓	B-12	S-4	10-14	1/27/92	1540	Soil	Comp.	2	8010/8020
✓	B-11	S-3	6-8'	1/28/92	0900	Soil	grab	1	6000/7000 418.1
✓	B-11	S-3	6-8'	1/28/92	0900	Soil	grab	2	8010/8020
✓	B-11	S-5	10'-12'	1/28/92	0915	Soil	grab	1	6000/7000 418.1
✓	B-11	S-5	10'-12'	1/28/92	0915	Soil	grab	2	8010/8020
	B-13	S-2	4'-8'	1/28/92	1105	Soil	Comp.	1	6000/7000 418.1
✓	B-13	S-2	4'-8'	1/28/92	1105	Soil	Comp.	2	8010/8020
✓	B-13	S-4	10'-12'	1/28/92	1135	Soil	grab.	1	6000/7000 418.1
✓	B-13	S-4	10'-12'	1/28/92	1135	Soil	grab	2	8010/8020

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

	Date	Time		Date	Time
Relinquished by: David E. Brach of: O'Brien & Gere Eng.	1/29/92	1000	Received by: Wendy Smith of: OBG Laboratories, Inc.	1-30-92	10:08
Relinquished by: of:			Received by: of:		
Relinquished by: of:			Received by: of:		
Use this space if shipped via courier (e.g. Fed Ex): Relinquished by: of:			Courier Name: *Attach delivery/courier receipt to Chain of Custody.		
Relinquished by: of:			Received by: of:		

September 17, 199

djb/wpC

O'BRIEN & GERE ENGINEERS, INC.

Job No. 3356.011

Sheet 2 of 2

me: O'Brien & Gere Eng.
ress: 5000 Brittonfield Pkwy
Syracuse NY
ne: (315) 437-6100

CHAIN OF CUSTODY

CLIENT:
LOCATION:

COLLECTED BY:
(Signature)

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-13 S-5 4-6'	1/25/92	1135	Soil	Comp.	1	6000/7000 418.1
B-13 S-5 4-8'	1/25/92	1135	Soil	Comp.	2	8010/8020
Field blank	1/25/92	1000	water	-	2	Field blank
Trip blank	1/24/92	-	water	-	1	Trip blank

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

	Date	Time		Date	Time
Relinquished by: Daniel S Bond			Received by: Wendy Smith		
of: O'Brien & Gere Eng.	1/25/92	1000	of: OTEC Laboratories, Inc.	1-29-92	18:00
Relinquished by:			Received by:		
2 of:			of:		
Relinquished by:			Received by:		
3 of:			of:		
Use this space if shipped via courier (e.g., Fed Ex)			Courier Name:		
Relinquished by: of:			Received by: of:		

O'BRIEN & GERE ENGINEERS, INC.

Job No. 3356.011

Sheet 1 of ___

Office: O'Brien & Gere Eng.

Address: 5000 Brittonfield Pkwy Syracuse NY.

Phone: (315) 437.6100

CHAIN OF CUSTODY

CLIENT: ITT Sealectro

LOCATION: Mamaroneck NY.

COLLECTED BY: David E. Broach

(Signature) D E Broach

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
✓B-14 S-3 6'-8'	1/31/92	0950	Soil	Grab	2	8010 / 8020
✓B-14 S-3 6'-8'	1/31/92	0950	Soil	Grab	1	6000/7000 418.1
✓B-19 S-3 8'-10'	1/30/92	1145	Soil	Grab	2	8010 / 8020
✓B-19 S-3 8'-10'	1/30/92	1145	Soil	Grab	1	6000 / 7000 418.1
✓B-14 S-6 16'-18'	1/31/92	1015	Soil	Grab	2	8010 / 8020
✓B-14 S-6 16'-18'	1/31/92	1015	Soil	Grab	1	6000 / 7000 418.1
✓B-19 S-6 18'-20'	1/30/92	1350	Soil	Grab	2	8010/8020
✓B-19 S-6 18'-20'	1/30/92	1350	Soil	Grab	1	6000 / 7000 418.1

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
D E Broach	1/31/92	1100	Wendy Smith	2-3-92	07:30
of: O'Brien & Gere Eng.			of: OBG Laboratories, Inc.		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g. Fed Ex) Relinquished by:	Date	Time	Courier Name:	Date	Time
of:			*Attach delivery/courier receipt to Client's COC copy.		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

djb/wpC

September 17, 1990

O'BRIEN & GERE ENGINEERS, INC.

Job No. 3358.011

Sheet 2 of 2

Office: O'Brien & Gere

Address: 300 Brinkerhoff Place, Syracuse NY.

Phone: 315-437-6100

CHAIN OF CUSTODY

CLIENT: HT Selectro

LOCATION: Massaroneck NY

COLLECTED BY: D.E. Brack

(Signature) D E Brack

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-15 S-5 6-8	2/3/92	1320	Soil	Grab	2	8010/8020
B-15 S-5 6-8	2/3/92	1320	Soil	Grab	1	6000/7000 418.1
B-22 S-3 4-6	2/4/92	1245	Soil	Grab	1	418.1
B-22 S-6 12-14	2/4/92	1315	Soil	Grab	1	418.1
B-22 - -	2/4/92	1345	Water	Grab	1	418.1

[1] Matrix = water, wastewater, air, sludge, sediment, etc.

[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
of: O'Brien & Gere Eng.	2/4/92	1800	of: NES Laboratories Inc.	2/6/92	14:0
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date	Time	Courier Name:	Date	Time
of:			Attach delivery/courier receipt to Chain of Custody.		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

djb/wpC

September 17, 1

O'BRIEN & GERE ENGINEERS, INC.

Job No. 3356.011

Sheet 1 of

Office: O'Brien & Gere Eng.

Address: 5000 Bathfield Pkwy Syracuse NY

Phone: 315 - 437 - 6100

CHAIN OF CUSTODY

CLIENT: ITT Seaelectro

LOCATION: Mamaroneck NY

COLLECTED BY: D. E. Broach

(Signature) D E Broach

	SAMPLE DESCRIPTION			Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
✓	B-16	S-2	2'-4'	9/2/92	1320	Soil	Grab	2	8010 / 8020
✓	B-16	S-2	2'-4'	9/3/92	1320	Soil	Grab	1	6000/7000 418.
✓	B-16	S-4	10-14	9/3/92	1400	Soil	Comp.	2	8010 / 8020
✓	B-16	S-4	10-14	9/3/92	1400	Soil	Comp.	1	6000 / 7000 418
✓	B-21	S-4	6-8	9/4/92	0905	Soil	Grab	2	8010 / 8020
✓	B-21	S-4	6-8	9/4/92	0905	Soil	Grab	1	6000/7000 418
✓	B-21	S-6	10-12	9/4/92	0930	Soil	Grab	2	8010 / 8020
✓	B-21	S-6	10-12	9/4/92	0930	Soil	Grab	1	6000/7000 418.
✓	B-15	S-1	0.5-2	9/3/92	1505	Soil	Grab	2	8010 / 8020
✓	B-15	S-1	0.5-2	9/3/92	1505	Soil	Grab	1	6000/7000 418
	B-15	S-2	2-6	9/3/92	1510	Soil	Comp.	2	8240 ACP-CLP
	B-15	S-2	2-6	9/3/92	1510	Soil	Comp.	1	6000/7000, 418.1, 80[illegible] Semi. volatiles PCTS
✓	B-15	S-3	6-8	9/3/92	1520	Soil	Grab	2	8010/8020
✓	B-15	S-3	6-8	9/3/92	1520	Soil	Grab	1	6000/7000 418.1

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
D E Broach	9/4/92	1200	Wendy Smith	9/4/92	14:[illegible]
of: O'Brien & Gere Eng.			of: OBG Laboratories Inc		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

dlb/wpC

September 17, 19

O'BRIEN & GERE ENGINEERS, INC.

Job No. 3356.011

Sheet 1 of 2

Office: O'Brien & Gere Eng.

Address: 5000 Brittonfield Pkwy Syracuse N.Y.

Phone: 315-437-6100

CHAIN OF CUSTODY

CLIENT: ITT Sealectro

LOCATION: Mamaroneck N.Y.

COLLECTED BY: D.E. Broach

(Signature) D E Broach

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-20 (0.5-13')	2/6/92	1500	Soil	Comp.	1	8010/8020
B-20 (0.5-13')	2/6/92	1500	Soil	Comp.	1	6000/7000 418.1
B-17 S-1 (0'-6')	2/5/92	1500	Soil	Comp.	1	8010/8020
B-17 S-1 (0'-6')	2/5/92	1500	Soil	Comp.	1	6000/7000 418.1
B-17 S-2 (6'-8')	2/5/92	1540	Soil	Grab	1	8010/8020
B-17 S-2 (6'-8')	2/5/92	1540	Soil	Grab	1	6000/7000 418.1
B-17 S-3 (8'-12')	2/5/92	1550	Soil	Comp.	1	8240 Asp-CLP
B-17 S-3 (8'-12')	2/5/92	1550	Soil	Comp.	1	6000/7000, 418.1 8050 Semi-volatiles PCTS ASP-CLP
B-23 S-2 (4-6)	2/7/92	0930	Soil	Grab	1	418.1
B-23 S-3 (6-10')	2/7/92	0942	Soil	Comp.	1	418.1
B-18 S-2 (6-8)	2/7/92	1040	Soil	Comp.	1	8010/8020
B-18 S-2 (6-8)	2/7/92	1040	Soil	Comp	2	6000/7000 418.1
B-19 S-4 (12-14)	2/7/92	1105	Soil	Grab	1	8010/802
B-19 S-4 (12-14)	2/7/92	1105	Soil	Grab	2	6000/7000 418.1

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
D E Broach	2/7/92	1700	Wendy Snyder	2-10-92	0710
of: O'Brien & Gere Eng			of: PAG Laboratories, Inc		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
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of:			Attach delivery/courier receipt to Chain of Custody		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		

O'BRIEN & GERE ENGINEERS, INC.

Job No. 3356.011
Sheet 2 of 2

Office: O'Brien & Gere Eng.
Address: 5000 Brittonfield Pkwy Syracuse NY
Phone: 315-437-6100

CHAIN OF CUSTODY

CLIENT: IT Sealectro
LOCATION: Mamaroneck NY

COLLECTED BY: D.E. Broach
(Signature) D E Broach

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
B-18 S-5 (6-8)	2/7/92	1040	Soil	Grab	1	8010/8020
B-18 S-5 (6-8)	2/7/92	1040	Soil	Grab	2	6000/7000 418.1
Trip Blank	-	-	-	-	-	Trip blank

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

	Date	Time		Date	Time
Relinquished by: D E Broach of: O'Brien & Gere Eng.	2/7/92	1200	Received by: Wendy Vinita of: OBG Laboratories Inc	2/8/92	07:00
Relinquished by: of:			Received by: of:		
Relinquished by: of:			Received by: of:		
Use this space if shipped via courier (e.g., Fed Ex): Relinquished by: of:	Date:	Time:	Courier Name: Attach delivery/courier receipt to Chain of Custody.	Date:	Time:
Relinquished by: of:			Received by: of:		

jb/wpC

September 17, 1990

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

Page 1 of 1

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Brenner

REPORT TO: Client Name O'Brien & Gere Eng.
Address 5000 Brittonfield Pkwy
Syracuse NY. 13221
Phone 315-437-6100
Attn. Peter Boggidus

Project No.	Project Name	Date Shipped	Carrier
	ITT Seelectro Mamaroneck NY.	2/20/92	Fed. Ex.
Sampler: (Signature)	**Analytical Protocol**	**Air Bill No.**	**Cooler No.**
D. S. Brock			

Sample I.D.	Date/Time Sampled		Sample Description	No. Of Con-tainers	ANALYSIS REQUESTED
Field blank	2/19/92	1700	40 ml glass	2	8010/8020
Field blank	2/19/92	1700	1 qt glass	1	418.1
Field blank	2/19/92	1700	1 qt plastic	1	6000/7000
Field blank	2/20/92	1730	40 ml glass	2	8010/8020
Field blank	2/20/92	1730	1 qt glass	1	418.1
Field blank	2/20/92	1730	1 qt plastic	1	6000/7000
Trip blank	2/20/92	1730	40 ml glass	1	Trip blank

Relinquished by (Signature)	Date / Time	Rec'd. By (Signature)	Date / Time
D. S. Brock	2/20/92 1500		
Print Name: David E. Brock	2/20/92 1730	Print Name	2/21/92 1:10
Relinquished by (Signature)	Date / Time	Rec'd. by (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time
Print Name		Print Name	

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

Page 1 of

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Brennan

REPORT TO: Client Name O'Brien & Gere Eng.
Address 5000 Brittonfield Pkwy
Syracuse N.Y. 13221
Phone 315-437-6100
Attn. Peter Boggedus

Project No.	Project Name	Date Shipped	Carrier
	ITT Seelectro Mamaroneck N.Y.	2/21/92	
Sampler: (Signature)	Analytical Protocol	Air Bill No.	Cooler No.

Sample I.D.	Date/Time Sampled		Sample Description	No. Of Containers	ANALYSIS REQUESTED
SS-1	2/21/92	0930	40 ml glass	2	8010/8020
SS-1	2/21/92	0930	8 oz glass	1	6000/7000 418.1
SS-2	2/21/92	1000	40 ml glass	2	8010/8020
SS-2	2/21/92	1000	8 oz glass	1	6000/7000 418.1
SS-3	2/21/92	1015	40 ml glass	2	8010/8020
SS-3	2/21/92	1015	8 oz glass	1	6000/7000 418.1
SS-4	2/21/92	1000	40 ml glass	2	8010/8020
SS-4	2/21/92	1000	8 oz glass	1	6000/7000 418.1
MS/MSD	2/21/92	0930	40 ml glass	2	8010/8020
MS/MSD	2/21/92	0930	8 oz glass	1	6000/7000 418.1
Field blank	2/21/92	1100	40 ml glass	2	8010/8020
Field blank	2/21/92	1100	1 qt glass	1	418.1

Relinquished by (Signature)	Date	Time	Rec'd. by (Signature)	Date	Time
Print Name David E. Brock	2/21/92	1700	Print Name	2/21/92	1710
Relinquished by (Signature)	Date	Time	Rec'd. by (Signature)	Date	Time
Print Name			Print Name		
Relinquished by (Signature)	Date	Time	Received for Laboratory by (Signature)	Date	Time
Print Name			Print Name		

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Breaner.

REPORT TO: Client Name O'Brien & Gere Eng.
Address 5000 Brittonfield Pkwy.
Syracuse NY 13221
Phone 315-437-6100
Attn. Peter Bogardus

Project No.	Project Name	Date Shipped	Carrier
	EJJ Sealectro	2/21/92	
Sampler: (Signature)	**Analytical Protocol**	**Air Bill No.**	**Cooler No.**
David E Broad			

Sample I.D.	Date/Time Sampled		Sample Description	No. Of Con-tainers	ANALYSIS REQUESTED
Field blank	2/21/92	1100	1 gt Plastic	1	6000 / 7000
Trip blank	2/21/92	1100	40 ml glass	1	Trip blank

Relinquished by (Signature)	Date	Time	Rec'd. By (Signature)	Date	Time
David E Broad	2/21/92	1310	Thomas Rymanowski	2/21/92	1:10
Print Name: David E. Broad			Print Name: T. Rymanowski		
Relinquished by (Signature)	Date	Time	Rec'd. by (Signature)	Date	Time
Print Name			Print Name		
Relinquished by (Signature)	Date	Time	Received for Laboratory by (Signature)	Date	Time
Print Name			Print Name		

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

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Port Washington, NY 11050
(516) 625-5500
Attn.

REPORT TO: Client Name O'Brien & Gere Eng.
Address 5000 Brittonfield Pkwy
Syracuse N.Y. 13221
Phone 315-437-6100
Attn. Peter Buggardus
3356.011

Project No.	Project Name	Date Shipped	Carrier
	ITT Sealectro Mamaroneck N.Y.	2/20/92	Fed Ex.
Sampler: (Signature)	**Analytical Protocol**	**Air Bill No.**	**Cooler No.**
David E. Broach			

Sample I.D.	Date/Time Sampled		Sample Description	No. Of Con-tainers	ANALYSIS REQUESTED
MW-2	2/19/92	1230	40 ml glass	2	8010/8020
MW-2	2/19/92	1230	1 qt glass	1	418.1
MW-2	2/19/92	1230	1 qt Plastic	2	6000/7000 (one bottle Filtered)
MW-2D	2/19/92	1030	40 ml glass	2	8010/8020
MW-2D	2/19/92	1030	1 qt glass	1	418.1
MW-2D	2/19/92	1030	1 qt Plastic	2	6000/7000 (one bottle Filtered)
MW-3	2/19/92	1510	40 ml glass	2	8010/8020
MW-3	2/19/92	1510	1 qt glass	1	418.1
MW-3	2/19/92	1510	1 qt Plastic	2	6000/7000 (one bottle Filtered)
MW-3D	2/19/92	1415	40 ml glass	2	8010/8020
MW-3D	2/19/92	1415	1 qt glass	1	418.1
MW-3D	2/19/92	1415	1 qt Plastic	2	6000/7000 (one bottle Filtered)

Relinquished by (Signature)	Date / Time	Rec'd. By (Signature)	Date / Time
Print Name: David E Broach	2/21/92 1310	Print Name	2/21/92 1310
Relinquished by (Signature)	Date / Time	Rec'd. by (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time
Print Name		Print Name	

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Brenner

REPORT TO: Client Name O'Brien & Gere Eng.
Address 5000 Brittonfield Pkwy
Syracuse NY 13221
Phone 315-437-6100
Attn. Pete Bigerdy

Project No.	Project Name	Date Shipped	Carrier
	IT Sealectro Mamaroneck NY	2/20/92	Fed. Ex
Sampler: (Signature)	**Analytical Protocol**	**Air Bill No.**	**Cooler No.**
Daniel S. Brock			

Sample I.D.	Date/Time Sampled	Sample Description	No. Of Con-tainers	ANALYSIS REQUESTED
Trip blank	2/20/92 1130	1 40 ml glass	1	Trip blank

Relinquished by (Signature)	Date / Time	Rec'd. By (Signature)	Date / Time
Daniel S. Brock	2/20/92 1600	Thomas Tymanowski	2/21/92 1:15
Print Name: Daniel S. Brock	2/21/92 1310	Print Name: T. Tymanowski	
Relinquished by (Signature)	Date / Time	Rec'd. by (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time
Print Name		Print Name	

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Brenner

REPORT TO: Client Name O'Brien & Gere Eng.
Address 5000 Brittonfield Pkwy
Syracuse NY. 13221
Phone 315-437-6100
Attn. Peter Bogardus

3356.011

Project No.	Project Name	Date Shipped	Carrier
	IST Sealectro Mamaroneck NY	2/20/92	Fed Ex
Sampler: (Signature) D. E. Brenner	Analytical Protocol	Air Bill No.	Cooler No.

Sample I.D.	Date/Time Sampled	Sample Description	No. Of Con-tainers	ANALYSIS REQUESTED
MW-10	2/19/92 1030	40 ml glass	2	8010/8020
MW-10	2/19/92 1030	1 qt glass	1	418.1
MW-10	2/19/92 1030	1 qt plastic	2	6000/7000 (one bottle Filtered)
SW-1	2/20/92 1050	40 ml glass	2	8010/8020
SW-1	2/20/92 1050	1 qt. glass	1	418.1
SW-1	2/20/92 1050	1 qt plastic	2	6000/7000 (one bottle Filtered)
SW-2	2/20/92 1115	40 ml glass	2	8010/8020
SW-2	2/20/92 1115	1 qt glass	1	418.1
SW-2	2/20/92 1115	1 qt plastic	2	6000/7000 (one bottle Filtered)
SW-3	2/20/92 1130	40 ml glass	2	8010/8020
SW-3	2/20/92 1130	1 qt glass	1	418.1
SW-3	2/20/92 1130	1 qt plastic	2	6000/7000 (one bottle Filtered)

Relinquished by (Signature)	Date / Time	Rec'd. By (Signature)	Date / Time
D. E. Brenner	2/20/92 1800	[signature]	2/21/92 1:15
Print Name: David E. Brenner	2/21/92 1315	Print Name: [signature]	
Relinquished by (Signature)	Date / Time	Rec'd. by (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time
Print Name		Print Name	

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Branca

REPORT TO: Client Name O'Brien & Gere Eng
Address 5000 Br. Henfield Pkwy
Syracuse NY 13220
Phone 315-437-6100
Attn. Peter Bogardus.

Project No.	Project Name	Date Shipped	Carrier
	ITT Seatectro Monaroneck NY	2/20/92	Fed Ex
Sampler: (Signature) D. S. Bl	Analytical Protocol	Air Bill No.	Cooler No.

Sample I.D.	Date/Time Sampled	Sample Description	No. Of Containers	ANALYSIS REQUESTED
MW-4	2/20/92 1000	40 ml glass	2	8010 / 8020
MW-4	2/20/92 1000	1 qt glass	1	418.1
MW-4	2/20/92 1000	1 qt Plastic	2	6000/7000 (one bottle Filtered)
MW-4D	2/20/92 0930	40 ml glass	2	8010 / 8020
MW-4D	2/20/92 0930	1 qt glass	1	418.1
MW-4D	2/20/92 0930	1 qt Plastic	2	6000 / 7000 (one bottle Filtered)
Trip blank	2/20/92 1700	1 40 ml glass	1	Trip blank

Relinquished by (Signature)	Date / Time	Rec'd. By (Signature)	Date / Time
D. S. Bl	2/20/92 1500		
Print Name David E. Brasch	2/21/92 1210	Print Name T. Szymanowski	2/21/92 1:15
Relinquished by (Signature)	Date / Time	Rec'd. by (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time
Print Name		Print Name	

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Brunner

REPORT TO: Client Name O'Brien & Gere
Address 5000 Brittonfield Pkwy
Syracuse NY
Phone 315-437-6100
Attn. D Bygerdt

Project No.	Project Name ITT Scalectro	Date Shipped 4/17/92	Carrier Fed Ex
Sampler: (Signature) D Bygerdt & B Brunner	Analytical Protocol	Air Bill No.	Cooler No.

Sample I.D.	Date/Time Sampled	Sample Description	No. Of Containers	ANALYSIS REQUESTED
Field blank	4/16/92 1545	1 qt Plastic	1	metals
Field blank	4/16/92 1545	1 pt Plastic	1	CN
Field blank	4/16/92 1545	1 qt glass	1	TPHC
Field blank	4/16/92 1545	8oz glas	1	Surface sediment TPHC CN, metals, PCTS

Relinquished by (Signature) / Print Name	Date / Time	Rec'd. By (Signature) / Print Name	Date / Time
D Bygerdt & B Brunner	4/17/92 0900		
Relinquished by (Signature) / Print Name	Date / Time	Rec'd. by (Signature) / Print Name	Date / Time
Relinquished by (Signature) / Print Name	Date / Time	Received for Laboratory by (Signature) / Print Name	Date / Time

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

Page 1 of 2

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Brenner

REPORT TO: Client Name O'Brien & Gere Eng.
Address 5000 Brittonfield Pkwy
Syracuse NY
Phone (315) ~~[illegible]~~ 437-6100
Attn. Peter Boggedus

Project No.	Project Name	Date Shipped	Carrier
	LIT Seglecton	4/17/92	Fed Ex
Sampler: (Signature)	Analytical Protocol	Air Bill No.	Cooler No.
D S Brand			

Sample I.D.	Date/Time Sampled		Sample Description	No. Of Containers	ANALYSIS REQUESTED
MW-2	4/15/92	1405	40 ml glass	2	VOA
MW-2D	4/15/92	1400	" " "	2	VOA
MW-3	4/15/92	1545	" " "	2	VOA
MW-3D	4/15/92	1515	" " "	2	VOA
MW-4	4/16/92	0900	" " "	2	VOA
MW-4D	4/16/92	0930	" " "	2	VOA
MW-10	4/15/92	1515	" " "	2	VOA
SW-1	4/16/92	1500	" " "	2	VOA
SW-2	4/16/92	1515	" " "	2	VOA
SW-3	4/16/92	1535	" " "	2	VOA
SS-1	4/16/92	1505	" " "	2	VOA
SS-2	4/16/92	1500	" " "	2	VOA

Relinquished by (Signature) / Print Name	Date / Time	Rec'd. By (Signature) / Print Name	Date / Time
D S Brand	4/17/92 0900		
Relinquished by (Signature) / Print Name	Date / Time	Rec'd. by (Signature) / Print Name	Date / Time
Relinquished by (Signature) / Print Name	Date / Time	Received for Laboratory by (Signature) / Print Name	Date / Time

Special Instructions/Comments

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TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Brenner

REPORT TO: Client Name O'Brien & Gere
Address 5000 Brittonfield Pkwy
Syracuse NY 13221
Phone 315-437-6100
Attn. Peter Biggerdus

Project No.	Project Name	Date Shipped	Carrier
Sampler: (Signature)	Analytical Protocol	Air Bill No.	Cooler No.

Sample I.D.	Date/Time Sampled		Sample Description	No. Of Con-tainers	ANALYSIS REQUESTED
SS-3	4/16/92	1540	40 ml glass	2	VOA
SS-4	4/16/92	1500	" "	2	VOA
trip blank	4/14/92	-	" " "	1	VOA
Field blank	4/16/92	1645	" " "	2	VOA
SW-1	4/16/92	1500	1 qt Plastic	1	metals
SW-1	4/16/92	1500	1 pt Plastic	1	CN
SW-1	4/16/92	1500	1 qt glass	1	TPHC
SW-2	4/16/92	1515	1 qt Plastic	1	metals
SW-2	4/16/92	1515	1 pt Plastic	1	CN
SW-2	4/16/92	1515	1 qt glass	1	TPHC
SW-3	4/16/92	1535	1 qt Plastic	1	metals
SW-3	4/16/92	1535	1 pt Plastic	1	CN

Relinquished by (Signature) / Print Name	Date / Time	Rec'd. By (Signature) / Print Name	Date / Time
Daniel S Brenner	4/17/92 0900		
Relinquished by (Signature) / Print Name	Date / Time	Rec'd. by (Signature) / Print Name	Date / Time
Relinquished by (Signature) / Print Name	Date / Time	Received for Laboratory by (Signature) / Print Name	Date / Time

Special Instructions/Comments

Client Retains Yellow Copy Only

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Brennen

REPORT TO: Client Name O'Brien & Gere
Address 5000 Brittonfield Pkwy
Syracuse NY
Phone 315-437-6100
Attn. Peter Bogardus

Project No.	Project Name	Date Shipped	Carrier
	LTT Sealectro	4/17/92	Fed Ex
Sampler: (Signature)	Analytical Protocol	Air Bill No.	Cooler No.

Sample I.D.	Date/Time Sampled		Sample Description	No. Of Containers	ANALYSIS REQUESTED
MW-4	4/16/92	0900	1 Pt Plastic	2	~~metals~~ CN
MW-4	4/16/92	0900	1 qt Plastic	2	metals
MW-4D	4/16/92	0930	1 Pt Plastic	2	CN
MW-4D	4/16/92	0930	1 qt Plastic	2	metals
MW-10	4/16/92	1345	1 qt Plastic	1	metals
MW-10	4/16/92	1515	1 qt Plastic	1	metals
MW-10	4/16/92	1345	1 Pt Plastic	1	CN
MW-10	4/16/92	1515	1 Pt Plastic	1	CN
SS-1	4/16/92	1535	502 ~~1 Pt~~ glass	1	metals, CN, TPHC, PCTS
SS-2	4/16/92	1500	502 ~~1 Pt~~ glass	1	metals, CN, TPHC, PCTS
SS-3	4/16/92	1540	502 glass	1	metals, CN, TPHC, PCTS
SS-4	4/16/92	1500	502 glass	1	metals CN TPHC PCTS

Relinquished by (Signature)	Date / Time	Rec'd. By (Signature)	Date / Time
Print Name	4/17/92 0800	Print Name	
Relinquished by (Signature)	Date / Time	Rec'd. by (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time
Print Name		Print Name	

Special Instructions/Comments

Client Retains Yellow Copy Only

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Dave Brenner

REPORT TO: Client Name O'Brien & Gere
Address 5000 Brittonfield Pkwy
Syracuse NY
Phone 315-437-6100
Attn. Pete Bigelow

Project No.	Project Name	Date Shipped	Carrier
	LIT Seglecta	4/17/92	Fed Ex
Sampler: (Signature)	**Analytical Protocol**	**Air Bill No.**	**Cooler No.**
D C G Brock			

Sample I.D.	Date/Time Sampled		Sample Description	No. Of Con-tainers	ANALYSIS REQUESTED
MW-3	4/15/92	1545	1 qt Plastic	1	metals
MW-3	4/16/92	1330	1 qt Plastic	1	metals
MW-3	4/15/92	1545	1 qt glass	1	TPHC
MW-3D	4/15/92	1515	1 qt Plastic	1	metals
MW-3D	4/16/92	1345	1 qt Plastic	1	metals
MW-3D	4/15/92	1515	1 pt Plastic	1	CN
MW-3D	4/16/92	1345	1 pt Plastic	1	CN
MW-3D	4/15/92	1515	1 qt glass	1	TPHC
MW-4	4/16/92	0900	1 qt glass	1	TPHC
MW-4D	4/16/92	0930	1 qt glass	1	TPHC
MW-1D	4/15/92	1515	1 qt glass	1	TPHC
SW-3	4/16/92	1530	1 qt glass	1	TPHC

Relinquished by (Signature)	Date / Time	Rec'd. By (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Rec'd. by (Signature)	Date / Time
Print Name		Print Name	
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature)	Date / Time
Print Name		Print Name	

Special Instructions/Comments

Client Retains Yellow Copy Only

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

CHAIN OF CUSTODY RECORD

Page 1 of 2

SHIP TO: Nytest Environmental Inc.
60 Seaview Blvd.
Port Washington, NY 11050
(516) 625-5500
Attn. Mike Bonner

REPORT TO: Client Name O'Brien & Gere Eng
Address 5000 Brittonfield Pkwy
Syracuse NY
Phone 315-437-6100
Attn. Pete Bugeaux

Project No.	Project Name	Date Shipped	Carrier
	ITT Seal Electro	4/17/92	Fed Ex
Sampler: (Signature)	Analytical Protocol	Air Bill No.	Cooler No.
D C S Brock			

Sample I.D.	Date/Time Sampled	Sample Description	No. Of Con-tainers	ANALYSIS REQUESTED
MW-2	4/15/92 1425	1 pt Plastic	1	CN
MW-2	4/16/92 1145	1 pt Plastic	1*	CN
MW-2	4/15/92 1425	1 qt Plastic	1	metals
MW-2	4/16/92 1145	1 qt Plastic	1	metals
MW-2	4/15/92 1425	1 qt glass	1	TPHC
MW-2D	4/15/92 1400	1 pt Plastic	1	CN
MW-2D	4/16/92 1200	1 pt Plastic	1	CN
MW-2D	4/15/92 1400	1 qt Plastic	1	metals
MW-2D	4/16/92 1200	1 qt Plastic	1	metals
MW-2D	4/15/92 1400	1 qt glass	1	TPHC
MW 3	4/15/92 1545	1 pt Plastic	1	CN
MW 3	4/16/92 1330	1 pt Plastic	1	CN

Relinquished by (Signature) / Print Name	Date / Time	Rec'd. By (Signature) / Print Name	Date / Time
D C S Brock	4/17/92 0900		
Relinquished by (Signature) / Print Name	Date / Time	Rec'd. by (Signature) / Print Name	Date / Time
Relinquished by (Signature) / Print Name	Date / Time	Received for Laboratory by (Signature) / Print Name	Date / Time

Special Instructions/Comments

Client Retains Yellow Copy Only

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

SAMPLE CONTAINER INVENTORY

Project: ITT — O'Brien & Gere

Shipped from (laboratory)	Nytest Environmental Inc. 60 Seaview Blvd. Port Washington, NY 11050	Shipped to	Marriot Courtyard Mamaroneck NY
Phone	(516) 625-5500	Attn.	David Brasch

CLP

SHIPMENT CONTENTS

Shipped					Received	
Matrix	Test Parameter	Bottle Size/Comp	Preservative	Quantity	Quantity	Condition/Comments
Water	Metals	1 qt plastic	HNO3	26	13	0326601C
	VOA	40 ml vials	—	30		2 per sample 0327
	TPHC	1 qt glass	HCl	15		0428001C
	Cyanide	1 qt plastic	NaOH	26		
Soil	Metals TPHC CN	8 oz jar	—	7		0628001C
Soil	VOA	40 ml vials	—	14		2 per sample 0327
TB	VOA	40 ml vials	—	6		Filled w/ DIC

Packed by: P.A. & R.F
Date: 4/14
Shipped by: NEI
Date:
Sealing Method:

Received by:
Date:
Inspected by:
Date:
Seal Intact?

Remarks: Coolers Ice COC Seals

APPENDIX E

DATA VALIDATION

APPENDIX F

GROUND WATER SAMPLING FIELD LOGS

GROUND WATER SAMPLING FIELD LOG

Sample Location ITT Sealectro Well No. mw-2

Sampled By D.E. Broach Date 2/19/92 Time 1230

Weather Cloudy / Raining 45° Sampled with Bailer ____ Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 13.67 ft.

Well elevation: (top of casing) ____ ft.

Depth to water table: (below top of casing) 5.17 ft.

Water table elevation: ____ ft.

Length of water column (LWC) 8.50 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 1.39 gallons 4.16

4" diameter wells = 0.653 X (LWC) = ____ gallons

6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Gray Odor None Turbidity med

Was an oil film or layer apparent? No Film

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 5 gallons.

Did well go dry? No

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Gray Odor None Turbidity High

Was an oil film or layer apparent? No Film

E. CONDUCTIVITY 93 µS

F. pH 5.6

G. TEMPERATURE 13°C

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location ITT Seglectro Mamaroneck NY. Well No. MW-2P
Sampled By D.E. Broach Date 2/19/92 Time 1030
Weather Cloudy / Raining 45° Sampled with Bailer X Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 42.08 ft.
Well elevation: (top of casing) ____ ft.
Depth to water table: 7.58' (below top of casing) 9'9" ft.
Water table elevation: ____ ft.
Length of water column (LWC) 34.5 ft.
Volume of water in well:
2" diameter wells = 0.163 x (LWC) = 5.62 gallons 16.87
4" diameter wells = 0.653 X (LWC) = ____ gallons
6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Top-clear Bottom Gray Odor None Turbidity Top-Low Bottom-High
Was an oil film or layer apparent? No Film

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 9 gallons.
Did well go dry? Yes

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Gray Odor None Turbidity High
Was an oil film or layer apparent? NO FILM

E. CONDUCTIVITY 80 ms

F. pH 6.7

G. TEMPERATURE 14°C

H. WELL SAMPLING NOTES:

* Field Dup Taken Designated MW-10D

GROUND WATER SAMPLING FIELD LOG

Sample Location IT Sealectro Well No. MW-3P

Sampled By D.E. Broach Date 2/19/92 Time 1415

Weather Cloudy/Raining 45° Sampled with Bailer X Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 29.25 ft.

Well elevation: (top of casing) ____ ft.

Depth to water table: (below top of casing) 8.38 ft.

Water table elevation: ____ ft.

Length of water column (LWC) 20.87 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 3.40 gallons 10.21

4" diameter wells = 0.653 X (LWC) = ____ gallons

6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Clear Odor None Turbidity Low

Was an oil film or layer apparent? No Film

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 12 gallons.

Did well go dry? No

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Gray Odor None Turbidity High

Was an oil film or layer apparent? No Film

E. CONDUCTIVITY 79 mS

F. pH 7.1

G. TEMPERATURE 15°

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location ITT Seglectro Well No. MW-3

Sampled By D.E. Broach Date 2/19/92 Time 1510

Weather Cloudy 45° Sampled with Bailer X Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 14.0 ft.

Well elevation: (top of casing) ____ ft.

Depth to water table: (below top of casing) 6.75 ft.

Water table elevation: ____ ft.

Length of water column (LWC) 7.25 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 1.18 gallons 3.54
4" diameter wells = 0.653 X (LWC) = ____ gallons
6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Clear Odor none Turbidity low

Was an oil film or layer apparent? no film

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 3 gallons.

Did well go dry? yes

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Gray Odor none Turbidity High

Was an oil film or layer apparent? no film

E. CONDUCTIVITY 90 µS

F. pH 7.1

G. TEMPERATURE 11° C

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location ITT Sealectro Well No. MW-4

Sampled By D.E. Brouch Date 2/20/92 Time _____

Weather Cloudy 45° Sampled with Bailer X Pump _____

A. WATER TABLE:

Well depth: (below top of casing) 13.42 ft.

Well elevation: (top of casing) _____ ft.

Depth to water table: (below top of casing) 5.06 ft.

Water table elevation: _____ ft.

Length of water column (LWC) 8.36 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 136 gallons 4.08.
4" diameter wells = 0.653 X (LWC) = _____ gallons
6" diameter wells = 1.469 X (LWC) = _____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Gray/brown Odor none Turbidity Low

Was an oil film or layer apparent? No Film

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 5 gallons.

Did well go dry? No

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Gray/brown Odor none Turbidity High

Was an oil film or layer apparent? No Film

E. CONDUCTIVITY 98

F. pH 7.0

G. TEMPERATURE 12°C

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location ITT Seelectro Well No. mw-4p

Sampled By D.E. Breed Date 2/20/92 Time 0930

Weather Cloudy 45° Sampled with Bailer X Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 39.25 ft.

Well elevation: (top of casing) ____ ft.

Depth to water table: (below top of casing) 5.10 ft.

Water table elevation: ____ ft.

Length of water column (LWC) 34.15 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 5.57 gallons/6.70

4" diameter wells = 0.653 X (LWC) = ____ gallons

6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Gray Odor none Turbidity med.

Was an oil film or layer apparent? no film

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 17.5 gallons.

Did well go dry? no

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Grey Odor none Turbidity High

Was an oil film or layer apparent? no film

E. CONDUCTIVITY 90 µs

F. pH 7.2

G. TEMPERATURE 13°

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location ITT Seaelectro - Mamaroneck N.Y. Well No. MW-2
Sampled By D.E. Broach Date 4/15/91 Time 1405
Weather Clear 68° Sampled with Bailer ✓ Pump ____

A. WATER TABLE:

Well depth:
(below top of casing) 13.75 ft.

Well elevation:
(top of casing) ____ ft.

Depth to water table:
(below top of casing) 5.74 ft.

Water table elevation: ____ ft.

Length of water column (LWC) 8.01 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 1.3 gallons x 3 = 3.9
4" diameter wells = 0.653 X (LWC) = ____ gallons
6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Clear Odor none Turbidity low

Was an oil film or layer apparent? no

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 40 gallons.

Did well go dry? no

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color gray Odor none Turbidity High

Was an oil film or layer apparent? no

E. CONDUCTIVITY 90.

F. pH 5.8

G. TEMPERATURE 13°c

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location IIT Sealectro - Mamaroneck NY Well No. MW-2D
Sampled By D. E. Roark Date 4/15/92 Time 1400
Weather Clear 68° Sampled with Bailer ✓ Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 43.18 ft.
Well elevation: (top of casing) ____ ft.
Depth to water table: (below top of casing) 7.85 ft.
Water table elevation: ____ ft.
Length of water column (LWC) 35.33 ft.
Volume of water in well:
2" diameter wells = 0.163 x (LWC) = 5.76 gallons x3 = 17.2
4" diameter wells = 0.653 X (LWC) = ____ gallons
6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Clear Odor None Turbidity Low
Was an oil film or layer apparent? No

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 18 gallons.
Did well go dry? No

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Gray Odor none Turbidity High
Was an oil film or layer apparent? No

E. CONDUCTIVITY 80 · ms

F. pH 6.9

G. TEMPERATURE 13°c

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location ITT Seelectro · Mamaroneck NY Well No. MW-3

Sampled By D.E Brock Date 4/15/92 Time 1545

Weather clear 65° Sampled with Bailer ✓ Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 13.97 ft.

Well elevation: (top of casing) ____ ft.

Depth to water table: (below top of casing) 6.78 ft.

Water table elevation: ____ ft.

Length of water column (LWC) 7.19 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 1.172 gallons x 3 = 3.52

4" diameter wells = 0.653 X (LWC) = ____ gallons

6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Clear Odor none Turbidity Low.

Was an oil film or layer apparent? NO

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 4 gallons.

Did well go dry? yes

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Brown Odor none Turbidity High

Was an oil film or layer apparent? NO

E. CONDUCTIVITY 90 µs

F. pH 7.1

G. TEMPERATURE 12°

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location IIT Sealectro Mamaroneck NY Well No. MW-3D
Sampled By D.E. Broach Date 4/15/92 Time 1515
Weather clear 60s° Sampled with Bailer ✓ Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 29.25 ft.
Well elevation: (top of casing) ____ ft.
Depth to water table: (below top of casing) 8.42 ft.
Water table elevation: ____ ft.
Length of water column (LWC) 20.83 ft.
Volume of water in well:
2" diameter wells = 0.163 x (LWC) = 3.39 gallons 10.19
4" diameter wells = 0.653 X (LWC) = ____ gallons
6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:
Color Clear Odor none Turbidity low
Was an oil film or layer apparent? NO

C. PREPARATION OF WELL FOR SAMPLING:
Amount of water removed before sampling 11 gallons.
Did well go dry? NO

D. PHYSICAL APPEARANCE DURING SAMPLING:
Color Brown Odor no Turbidity High
Was an oil film or layer apparent? NO

E. CONDUCTIVITY 78 mc

F. pH 7.0

G. TEMPERATURE 14°C

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location IIT Sealectro Hammonasset NJ Well No. MW-4

Sampled By D. E. Broad Date 4/14/82 Time 0900

Weather Cloudy 50° Sampled with Bailer ✓ Pump ____

A. WATER TABLE:

Well depth: (below top of casing) 13.63 ft.

Well elevation: (top of casing) ____ ft.

Depth to water table: (below top of casing) 5.05 ft.

Water table elevation: ____ ft.

Length of water column (LWC) 8.58 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 1.40 gallons ~~x 4~~ 20

4" diameter wells = 0.653 X (LWC) = ____ gallons

6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Clear Odor none Turbidity Low

Was an oil film or layer apparent? NO

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 6.0 gallons.

Did well go dry? NO

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Brown Odor none Turbidity High

Was an oil film or layer apparent? NO

E. CONDUCTIVITY 95 mS

F. pH 7.0

G. TEMPERATURE 13°C

H. WELL SAMPLING NOTES:

GROUND WATER SAMPLING FIELD LOG

Sample Location ITT Sealectro Mainmeroneck NY Well No. MW-4D

Sampled By D. E Brock Date 4/16/92 Time 0930

Weather Cloudy 50° Sampled with Bailer ____ Pump ____

A. WATER TABLE:

Well depth:
(below top of casing) 39.20 ft.

Well elevation:
(top of casing) ____ ft.

Depth to water table:
(below top of casing) 5.14 ft.

Water table elevation: ____ ft.

Length of water column (LWC) 34.06 ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = 5.55 gallons x 3 = 16.6
4" diameter wells = 0.653 X (LWC) = ____ gallons
6" diameter wells = 1.469 X (LWC) = ____ gallons

B. PHYSICAL APPEARANCE AT START:

Color Clear Odor ~~Strong~~ none Turbidity Low

Was an oil film or layer apparent? no

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling 17 gallons.

Did well go dry? no

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color Brown Odor none Turbidity High

Was an oil film or layer apparent? no

E. CONDUCTIVITY 90 ms

F. pH 7.1

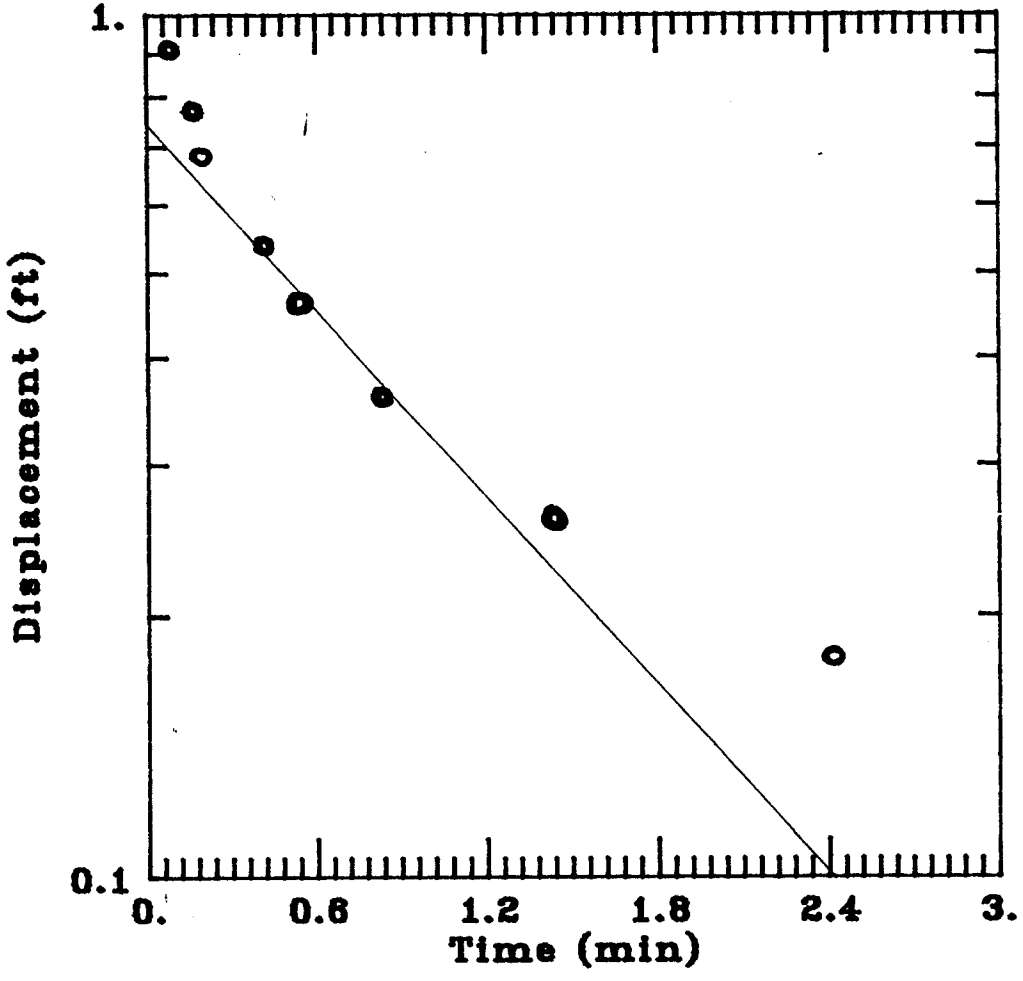
G. TEMPERATURE 13°-

H. WELL SAMPLING NOTES:

APPENDIX G

IN-SITU HYDRAULIC CONDUCTIVITY TESTS

ITT SEALECTRO MW-2



DATA SET:
a: 1ttmw-2ao
05/07/92

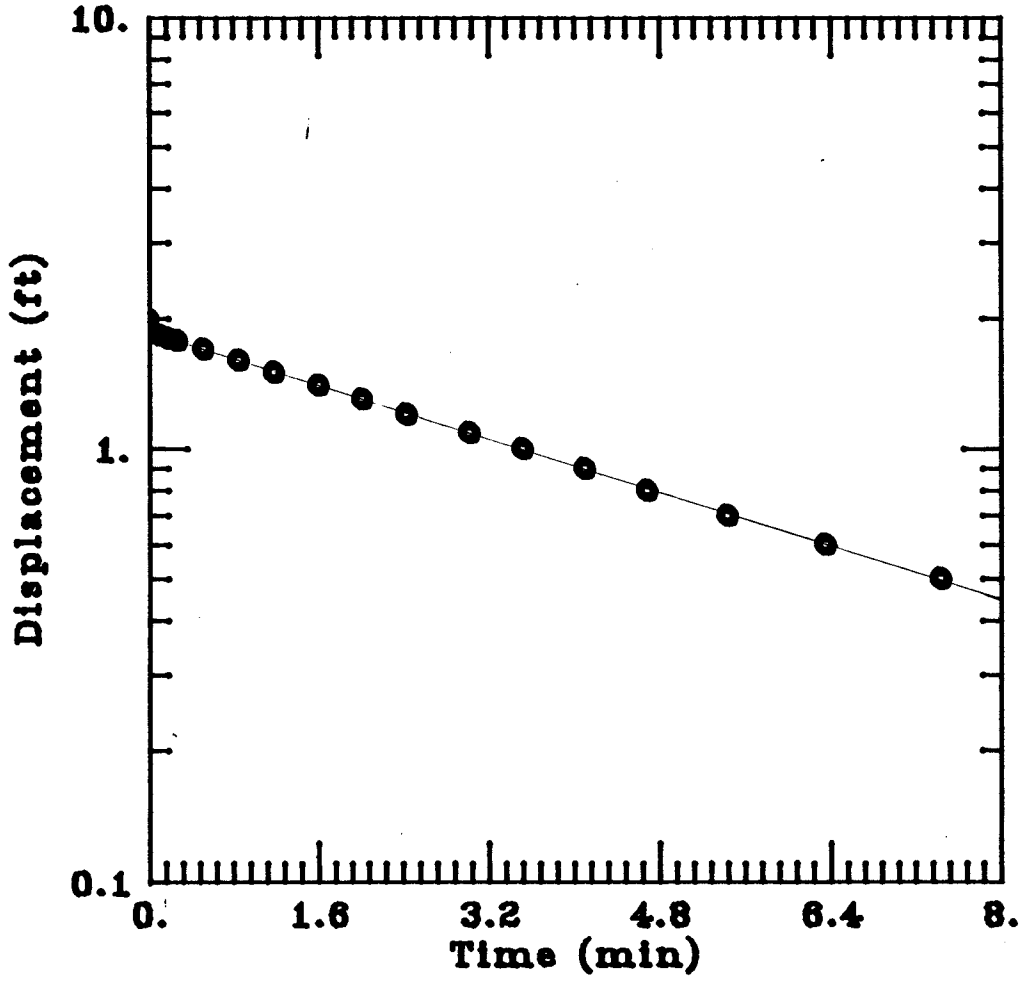
AQUIFER TYPE:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

ESTIMATED PARAMETERS:
K = 0.0007014 ft/min
y0 = 0.7471 ft

TEST DATA:
H0 = 1.157 ft
rc = 0.083 ft
rw = 0.3542 ft
L = 7.74 ft
b = 36. ft
H = 7.74 ft

ITT-SEALECTRO MW-2D



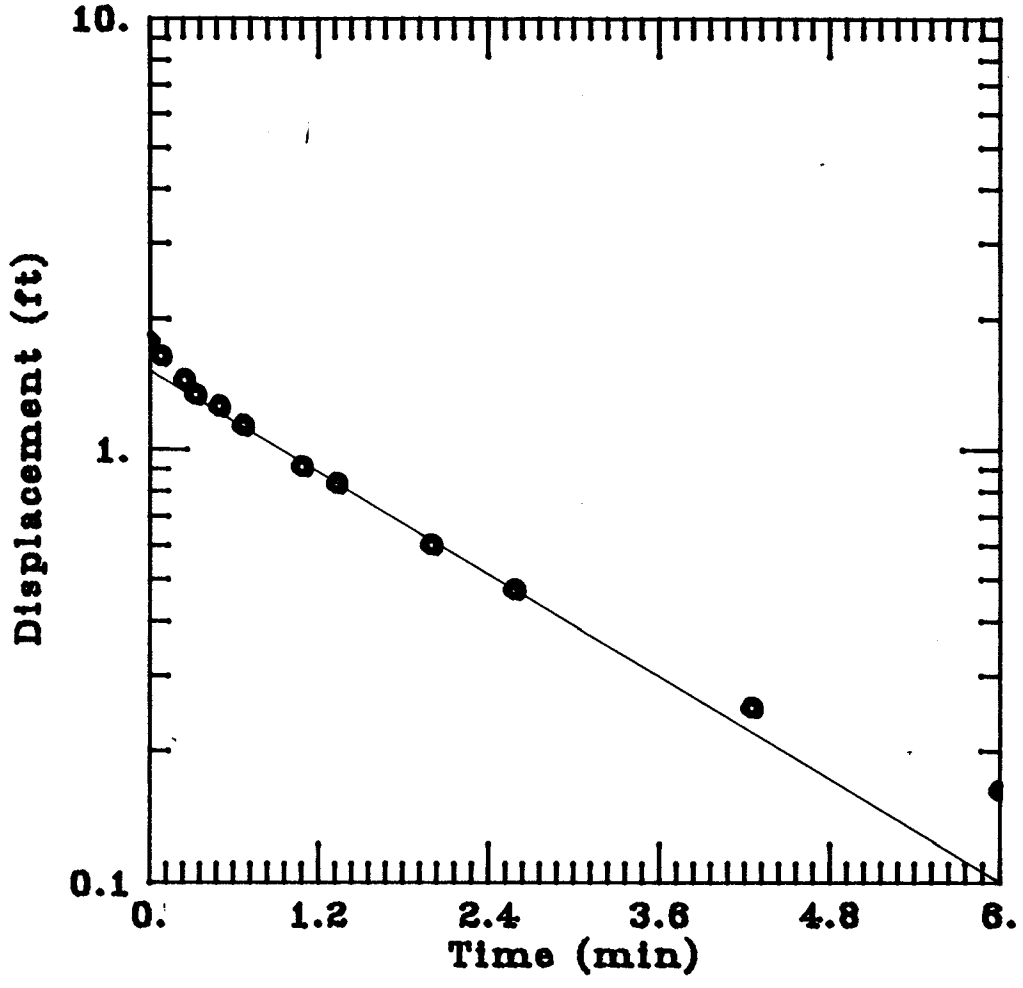
DATA SET:
B: IITMW2D
01/04/80

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

ESTIMATED PARAMETERS:
K = 0.0002037 ft/min
y0 = 1.855 ft

TEST DATA:
H0 = 2. ft
rc = 0.083 ft
rw = 0.33 ft
L = 10. ft
b = 35. ft
H = 35. ft

ITT-SEALECTRO MW-3



DATA SET:
s:\ittmw-3s.dat
06/09/92

AQUIFER TYPE:
Unconfined

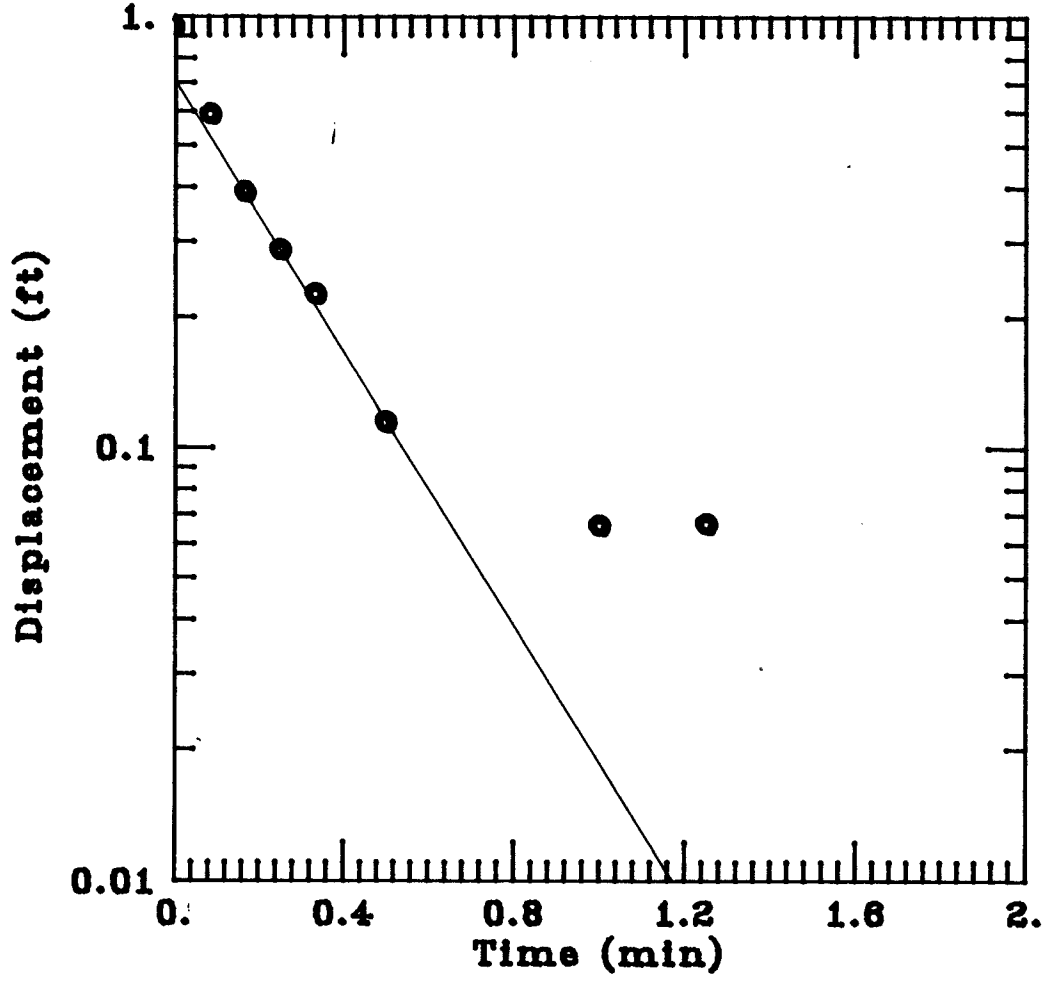
SOLUTION METHOD:
Bouwer-Rice

OBS. WELL:
MW-3S

ESTIMATED PARAMETERS:
K = 0.001244 ft/min
y0 = 1.522 ft

TEST DATA:
H0 = 1.75 ft
rc = 0.1667 ft
rw = 0.3542 ft
L = 10. ft
b = 10. ft
H = 6. ft

ITT-SEALECTRO MW-3D



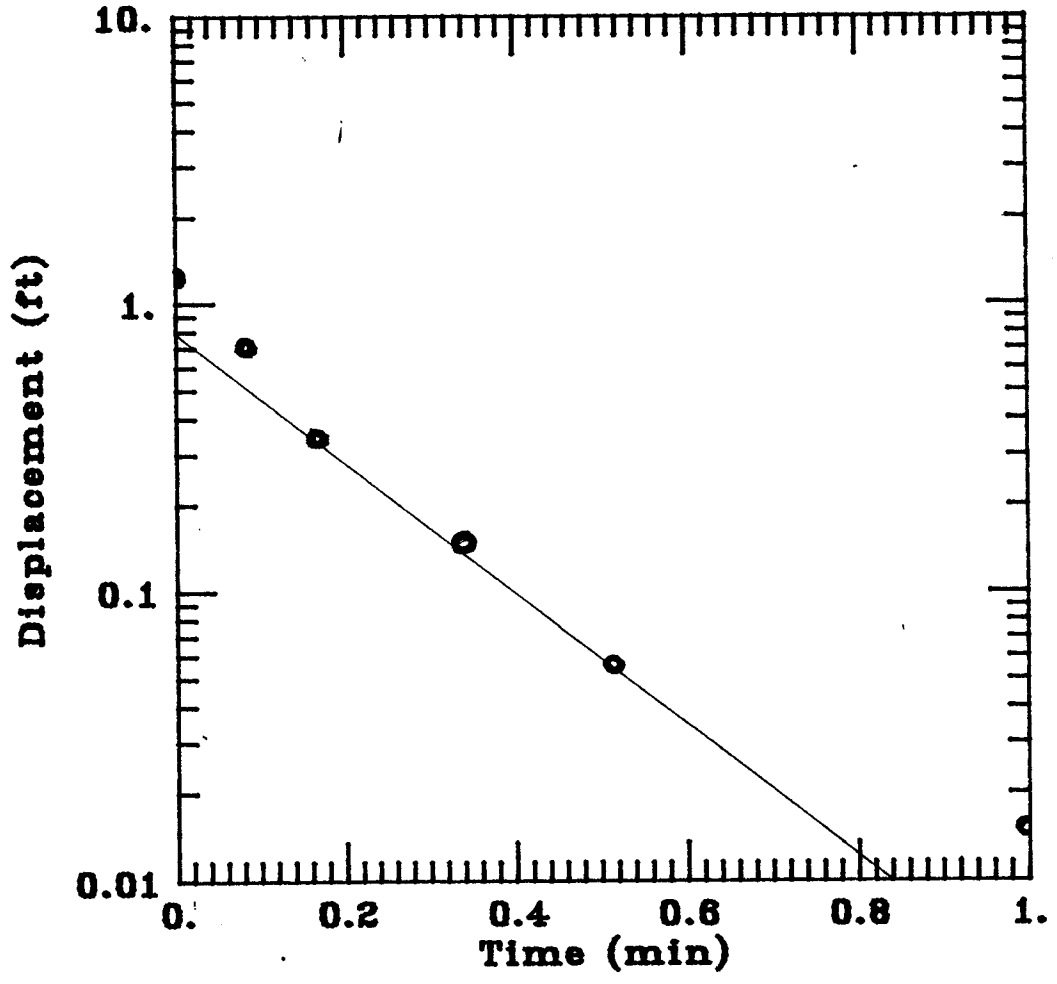
DATA SET:
A: ITTMW-3D.DAT
08/03/92

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

ESTIMATED PARAMETERS:
K = 0.003342 ft/min
y0 = 0.7021 ft

TEST DATA:
H0 = 0.95 ft
rc = 0.083 ft
rw = 0.3542 ft
L = 10. ft
b = 22. ft
H = 20.58 ft

ITT SEALECTRO MW-4



DATA SET:
s: ittmw-4do
05/07/92

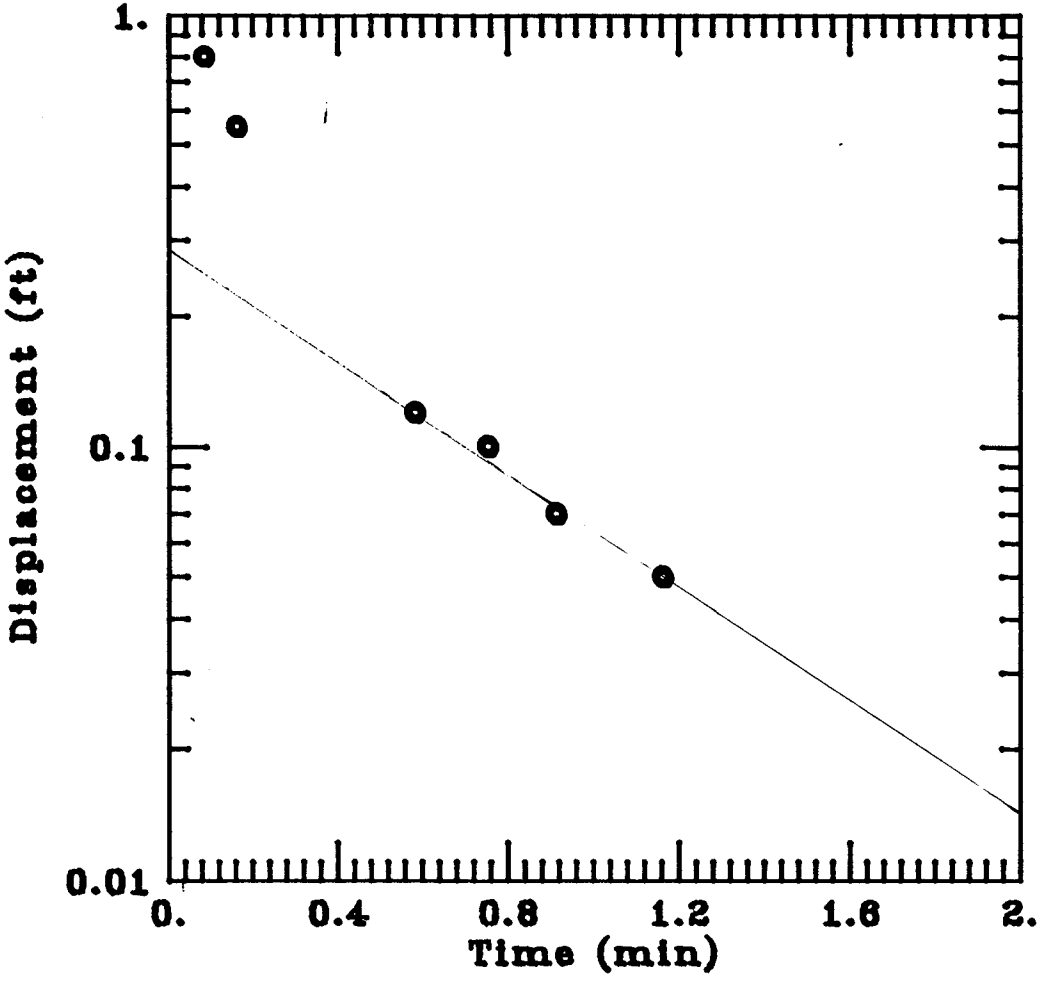
AQUIFER TYPE:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

ESTIMATED PARAMETERS:
K = 0.004137 ft/min
y0 = 0.7966 ft

TEST DATA:
H0 = 1.25 ft
rc = 0.083 ft
rw = 0.3542 ft
L = 8.5 ft
b = 37. ft
H = 8.6 ft

ITT-SEALECTRO MW4D



DATA SET:
ITTMW4D
01/04/80

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

ESTIMATED PARAMETERS:
K = 0.001718 ft/min
y0 = 0.2855 ft

TEST DATA:
H0 = 1.3 ft
rc = 0.083 ft
rw = 0.33 ft
L = 10. ft
b = 35. ft
H = 35. ft

APPENDIX G

IN-SITU HYDRAULIC CONDUCTIVITY TESTS

APPENDIX H

STORM ELEVATION MONITORING DATA

Date Monday April 27, 1992 9:23 AM
PlotFile D:\STORMH01.PRN
DataFile B:\STORMH2O
ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2		Analog#02 MW-3 5psi.. FT..... SWB-1		Analog#03 MW-3D 5psi. ft..... MW-3	6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
16-Apr-92	15:27:14	0.99	189.01	7.02	190.22	0.00	188.59	15.73	191.65	8.06	189.85	
16-Apr-92	15:42:14	1.00	189.02	7.02	190.22	2.74	191.33	15.75	191.67	8.05	189.84	
16-Apr-92	15:57:14	1.00	189.02	7.02	190.22	2.73	191.32	15.76	191.68	8.06	189.85	
16-Apr-92	16:12:14	1.01	189.03	7.01	190.21	2.71	191.30	15.75	191.67	8.06	189.85	
16-Apr-92	16:27:14	1.02	189.04	7.01	190.21	2.71	191.30	15.75	191.67	8.06	189.85	
16-Apr-92	16:42:14	1.03	189.05	7.02	190.22	2.71	191.30	15.76	191.68	8.07	189.86	
16-Apr-92	16:57:14	1.03	189.05	7.02	190.22	2.72	191.31	15.77	191.69	8.07	189.86	
16-Apr-92	17:12:14	1.04	189.06	7.03	190.23	2.72	191.31	15.76	191.68	8.07	189.86	
16-Apr-92	17:27:14	1.06	189.08	7.03	190.23	2.72	191.31	15.76	191.68	8.07	189.86	
16-Apr-92	17:42:14	1.08	189.10	7.04	190.24	2.72	191.31	15.77	191.69	8.08	189.87	
16-Apr-92	17:57:14	1.11	189.13	7.05	190.25	2.72	191.31	15.78	191.70	8.08	189.87	
16-Apr-92	18:12:14	1.14	189.16	7.07	190.27	2.72	191.31	15.78	191.70	8.10	189.89	
16-Apr-92	18:27:14	1.15	189.17	7.08	190.28	2.73	191.32	15.78	191.70	8.10	189.89	
16-Apr-92	18:42:14	1.16	189.18	7.09	190.29	2.73	191.32	15.78	191.70	8.11	189.90	
16-Apr-92	18:57:14	1.16	189.18	7.09	190.29	2.73	191.32	15.79	191.71	8.12	189.91	
16-Apr-92	19:12:14	1.17	189.19	7.10	190.30	2.73	191.32	15.80	191.72	8.13	189.92	
16-Apr-92	19:27:14	1.17	189.19	7.10	190.30	2.73	191.32	15.80	191.72	8.12	189.91	
16-Apr-92	19:42:14	1.17	189.19	7.10	190.30	2.74	191.33	15.81	191.73	8.13	189.92	
16-Apr-92	19:57:14	1.17	189.19	7.11	190.31	2.74	191.33	15.81	191.73	8.13	189.92	
16-Apr-92	20:12:14	1.16	189.18	7.10	190.30	2.74	191.33	15.81	191.73	8.13	189.92	
16-Apr-92	20:27:14	1.15	189.17	7.11	190.31	2.74	191.33	15.81	191.73	8.12	189.91	
16-Apr-92	20:42:14	1.15	189.17	7.10	190.30	2.74	191.33	15.81	191.73	8.12	189.91	
16-Apr-92	20:57:14	1.14	189.16	7.09	190.29	2.74	191.33	15.81	191.73	8.12	189.91	
16-Apr-92	21:12:14	1.15	189.17	7.10	190.30	2.75	191.34	15.81	191.73	8.12	189.91	
16-Apr-92	21:27:14	1.15	189.17	7.10	190.30	2.74	191.33	15.81	191.73	8.12	189.91	
16-Apr-92	21:42:14	1.15	189.17	7.11	190.31	2.75	191.34	15.81	191.73	8.13	189.92	
16-Apr-92	21:57:14	1.16	189.18	7.12	190.32	2.75	191.34	15.82	191.74	8.13	189.92	
16-Apr-92	22:12:14	1.16	189.18	7.11	190.31	2.75	191.34	15.82	191.74	8.13	189.92	
16-Apr-92	22:27:14	1.16	189.18	7.12	190.32	2.76	191.35	15.82	191.74	8.13	189.92	
16-Apr-92	22:42:14	1.17	189.19	7.12	190.32	2.75	191.34	15.83	191.75	8.13	189.92	
16-Apr-92	22:57:14	1.17	189.19	7.12	190.32	2.76	191.35	15.83	191.75	8.14	189.93	
16-Apr-92	23:12:14	1.19	189.21	7.13	190.33	2.76	191.35	15.84	191.76	8.15	189.94	
16-Apr-92	23:27:14	1.18	189.20	7.13	190.33	2.77	191.36	15.84	191.76	8.15	189.94	
16-Apr-92	23:42:14	1.18	189.20	7.13	190.33	2.77	191.36	15.84	191.76	8.15	189.94	
16-Apr-92	23:57:14	1.19	189.21	7.13	190.33	2.77	191.36	15.84	191.76	8.15	189.94	
17-Apr-92	00:12:14	1.20	189.22	7.13	190.33	2.77	191.36	15.84	191.76	8.16	189.95	
17-Apr-92	00:27:14	1.19	189.21	7.14	190.34	2.77	191.36	15.84	191.76	8.16	189.95	
17-Apr-92	00:42:14	1.20	189.22	7.13	190.33	2.78	191.37	15.85	191.77	8.16	189.95	
17-Apr-92	00:57:14	1.20	189.22	7.15	190.35	2.78	191.37	15.85	191.77	8.16	189.95	
17-Apr-92	01:12:14	1.20	189.22	7.14	190.34	2.78	191.37	15.85	191.77	8.17	189.96	

Date Monday April 27, 1992 9:23 AM
PlotFile B:\STORMH01.PRN
DataFile B:\STORMH2O
ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2	SWB-1	Analog#02 MW-3 5psi.. FT.....	MW-3	Analog#03 MW-3D 5psi. ft..... 6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
17-Apr-92	01:27:14	1.20	189.22	7.15	190.35	2.79	191.38	15.86	191.78	8.17	189.96
17-Apr-92	01:42:14	1.20	189.22	7.14	190.34	2.79	191.38	15.86	191.78	8.17	189.96
17-Apr-92	01:57:14	1.21	189.23	7.15	190.35	2.79	191.38	15.86	191.78	8.17	189.96
17-Apr-92	02:12:14	1.21	189.23	7.15	190.35	2.79	191.38	15.86	191.78	8.17	189.96
17-Apr-92	02:27:14	1.21	189.23	7.14	190.34	2.79	191.38	15.86	191.78	8.17	189.96
17-Apr-92	02:42:14	1.21	189.23	7.16	190.36	2.79	191.38	15.87	191.79	8.18	189.97
17-Apr-92	02:57:14	1.22	189.24	7.17	190.37	2.80	191.39	15.87	191.79	8.18	189.97
17-Apr-92	03:12:14	1.22	189.24	7.16	190.36	2.79	191.38	15.86	191.78	8.17	189.96
17-Apr-92	03:27:14	1.22	189.24	7.16	190.36	2.79	191.38	15.86	191.78	8.17	189.96
17-Apr-92	03:42:14	1.22	189.24	7.18	190.38	2.79	191.38	15.86	191.78	8.18	189.97
17-Apr-92	03:57:14	1.22	189.24	7.15	190.35	2.80	191.39	15.87	191.79	8.17	189.96
17-Apr-92	04:12:14	1.21	189.23	7.15	190.35	2.80	191.39	15.86	191.78	8.17	189.96
17-Apr-92	04:27:14	1.21	189.23	7.15	190.35	2.80	191.39	15.86	191.78	8.18	189.97
17-Apr-92	04:42:14	1.21	189.23	7.16	190.36	2.81	191.40	15.86	191.78	8.18	189.97
17-Apr-92	04:57:14	1.21	189.23	7.16	190.36	2.81	191.40	15.87	191.79	8.18	189.97
17-Apr-92	05:12:14	1.21	189.23	7.16	190.36	2.82	191.41	15.87	191.79	8.18	189.97
17-Apr-92	05:27:14	1.21	189.23	7.15	190.35	2.82	191.41	15.87	191.79	8.18	189.97
17-Apr-92	05:42:14	1.21	189.23	7.16	190.36	2.82	191.41	15.87	191.79	8.18	189.97
17-Apr-92	05:57:14	1.20	189.22	7.16	190.36	2.82	191.41	15.87	191.79	8.18	189.97
17-Apr-92	06:12:14	1.20	189.22	7.16	190.36	2.82	191.41	15.87	191.79	8.18	189.97
17-Apr-92	06:27:14	1.20	189.22	7.15	190.35	2.82	191.41	15.87	191.79	8.17	189.96
17-Apr-92	06:42:14	1.20	189.22	7.16	190.36	2.82	191.41	15.86	191.78	8.17	189.96
17-Apr-92	06:57:14	1.20	189.22	7.16	190.36	2.82	191.41	15.86	191.78	8.17	189.96
17-Apr-92	07:12:14	1.19	189.21	7.15	190.35	2.82	191.41	15.86	191.78	8.17	189.96
17-Apr-92	07:27:14	1.20	189.22	7.16	190.36	2.82	191.41	15.86	191.77	8.17	189.96
17-Apr-92	07:42:14	1.19	189.21	7.15	190.35	2.82	191.41	15.86	191.77	8.17	189.96
17-Apr-92	07:57:14	1.19	189.21	7.14	190.34	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	08:12:14	1.19	189.21	7.16	190.36	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	08:27:14	1.19	189.21	7.14	190.34	2.81	191.40	15.85	191.77	8.17	189.96
17-Apr-92	08:42:14	1.19	189.21	7.15	190.35	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	08:57:14	1.19	189.21	7.14	190.34	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	09:12:14	1.18	189.20	7.14	190.34	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	09:27:14	1.19	189.21	7.14	190.34	2.81	191.40	15.85	191.77	8.15	189.94
17-Apr-92	09:42:14	1.19	189.21	7.15	190.35	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	09:57:14	1.18	189.20	7.15	190.35	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	10:12:14	1.17	189.19	7.15	190.35	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	10:27:14	1.18	189.20	7.14	190.34	2.80	191.39	15.84	191.76	8.15	189.94
17-Apr-92	10:42:14	1.18	189.20	7.15	190.35	2.80	191.39	15.84	191.76	8.15	189.94
17-Apr-92	10:57:14	1.17	189.19	7.14	190.34	2.80	191.39	15.84	191.76	8.15	189.94
17-Apr-92	11:12:14	1.17	189.19	7.15	190.35	2.80	191.39	15.84	191.76	8.15	189.94

Date Monday April 27, 1992 9:23 AM
PlotFile d:\STORMH01.PRN
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ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT.....		Analog#02 MW-3 5psi.. FT.....		Analog#03 MW-3D 5psi. ft.....		Analog#04 MW-2D 10psi ft.....		Analog#05 Mw-2 5psi.. ft.....	
	MW-2		SWB-1		MW-3	6.75'	MW-3D		MW-2D		MW-2
17-Apr-92	11:27:14	1.17	189.19	7.14	190.33	2.80	191.39	15.84	191.76	8.15	189.94
17-Apr-92	11:42:14	1.17	189.19	7.14	190.34	2.80	191.39	15.84	191.76	8.15	189.94
17-Apr-92	11:57:14	1.17	189.19	7.14	190.34	2.81	191.40	15.84	191.76	8.15	189.94
17-Apr-92	12:12:14	1.17	189.19	7.14	190.34	2.80	191.39	15.84	191.76	8.15	189.94
17-Apr-92	12:27:14	1.18	189.20	7.15	190.35	2.81	191.40	15.85	191.77	8.15	189.94
17-Apr-92	12:42:14	1.18	189.20	7.14	190.33	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	12:57:14	1.18	189.20	7.14	190.33	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	13:12:14	1.19	189.21	7.15	190.35	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	13:27:14	1.19	189.21	7.14	190.34	2.82	191.41	15.85	191.77	8.17	189.96
17-Apr-92	13:42:14	1.19	189.21	7.15	190.35	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	13:57:14	1.18	189.20	7.14	190.34	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	14:12:14	1.18	189.20	7.15	190.35	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	14:27:14	1.18	189.20	7.15	190.35	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	14:42:14	1.17	189.19	7.14	190.34	2.81	191.40	15.84	191.76	8.16	189.95
17-Apr-92	14:57:14	1.17	189.19	7.14	190.34	2.81	191.40	15.85	191.77	8.16	189.95
17-Apr-92	15:12:14	1.17	189.19	7.14	190.34	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	15:27:14	1.16	189.18	7.14	190.34	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	15:42:14	1.16	189.18	7.14	190.34	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	15:57:14	1.16	189.18	7.14	190.34	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	16:12:14	1.16	189.18	7.14	190.34	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	16:27:14	1.16	189.18	7.14	190.34	2.82	191.41	15.85	191.77	8.16	189.95
17-Apr-92	16:42:14	1.16	189.18	7.14	190.34	2.82	191.41	15.85	191.77	8.15	189.94
17-Apr-92	16:57:14	1.17	189.19	7.14	190.34	2.82	191.41	15.85	191.77	8.15	189.94
17-Apr-92	17:12:14	1.17	189.19	7.14	190.34	2.82	191.41	15.85	191.77	8.15	189.94
17-Apr-92	17:27:14	1.18	189.20	7.14	190.34	2.81	191.40	15.85	191.77	8.15	189.94
17-Apr-92	17:42:14	1.24	189.26	7.15	190.35	2.85	191.44	15.85	191.77	8.34	190.13
17-Apr-92	17:57:14	1.39	189.41	7.22	190.42	2.87	191.46	15.87	191.79	8.37	190.16
17-Apr-92	18:12:14	1.45	189.47	7.29	190.49	2.86	191.45	15.88	191.80	8.38	190.17
17-Apr-92	18:27:14	1.51	189.53	7.33	190.53	2.87	191.46	15.88	191.80	8.34	190.13
17-Apr-92	18:42:14	1.55	189.57	7.37	190.57	2.90	191.49	15.88	191.80	8.37	190.16
17-Apr-92	18:57:14	1.54	189.56	7.37	190.57	2.91	191.50	15.89	191.81	8.47	190.26
17-Apr-92	19:12:14	1.58	189.60	7.40	190.60	2.94	191.53	15.90	191.82	8.41	190.20
17-Apr-92	19:27:14	1.58	189.60	7.43	190.63	2.97	191.56	15.91	191.83	8.41	190.20
17-Apr-92	19:42:14	1.59	189.61	7.44	190.64	2.98	191.57	15.91	191.83	8.41	190.20
17-Apr-92	19:57:14	1.60	189.62	7.46	190.66	2.98	191.57	15.91	191.83	8.37	190.16
17-Apr-92	20:12:14	1.58	189.60	7.45	190.65	3.05	191.64	15.91	191.83	8.36	190.15
17-Apr-92	20:27:14	1.55	189.57	7.45	190.65	3.06	191.65	15.91	191.83	8.35	190.14
17-Apr-92	20:42:14	1.52	189.54	7.46	190.66	3.18	191.77	15.90	191.82	8.34	190.13
17-Apr-92	20:57:14	1.50	189.52	7.45	190.65	3.20	191.79	15.90	191.82	8.34	190.13
17-Apr-92	21:12:14	1.48	189.50	7.45	190.65	3.24	191.83	15.90	191.82	8.33	190.12

Date Monday April 27, 1992 9:23 AM
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ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2		Analog#02 MW-3 5psi.. FT..... SWB-1		Analog#03 MW-3D 5psi. ft..... MW-3	6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
17-Apr-92	21:27:14	1.48	189.50	7.44	190.64	3.23	191.82	15.91	191.83	8.33	190.12	
17-Apr-92	21:42:14	1.48	189.50	7.44	190.64	3.28	191.87	15.90	191.82	8.32	190.11	
17-Apr-92	21:57:14	1.49	189.51	7.45	190.65	3.30	191.89	15.90	191.82	8.33	190.12	
17-Apr-92	22:12:14	1.50	189.52	7.45	190.65	3.30	191.89	15.91	191.83	8.33	190.12	
17-Apr-92	22:27:14	1.50	189.52	7.46	190.66	3.30	191.89	15.91	191.83	8.33	190.12	
17-Apr-92	22:42:14	1.52	189.54	7.47	190.67	3.29	191.88	15.90	191.82	8.33	190.12	
17-Apr-92	22:57:14	1.53	189.55	7.47	190.67	3.31	191.90	15.90	191.82	8.34	190.13	
17-Apr-92	23:12:14	1.54	189.56	7.48	190.68	3.33	191.92	15.91	191.83	8.35	190.14	
17-Apr-92	23:27:14	1.55	189.57	7.48	190.68	3.32	191.91	15.91	191.83	8.35	190.14	
17-Apr-92	23:42:14	1.56	189.58	7.49	190.69	3.34	191.93	15.92	191.84	8.36	190.15	
17-Apr-92	23:57:14	1.56	189.58	7.49	190.69	3.34	191.93	15.92	191.84	8.37	190.16	
18-Apr-92	00:12:14	1.56	189.58	7.49	190.69	3.36	191.95	15.92	191.84	8.37	190.16	
18-Apr-92	00:27:14	1.55	189.57	7.49	190.69	3.36	191.95	15.92	191.84	8.36	190.15	
18-Apr-92	00:42:14	1.55	189.57	7.49	190.69	3.35	191.94	15.92	191.84	8.36	190.15	
18-Apr-92	00:57:14	1.54	189.56	7.48	190.68	3.37	191.96	15.92	191.84	8.37	190.16	
18-Apr-92	01:12:14	1.53	189.55	7.48	190.68	3.34	191.93	15.93	191.85	8.36	190.15	
18-Apr-92	01:27:14	1.52	189.54	7.49	190.69	3.38	191.97	15.92	191.84	8.36	190.15	
18-Apr-92	01:42:14	1.51	189.53	7.47	190.67	3.37	191.96	15.93	191.85	8.36	190.14	
18-Apr-92	01:57:14	1.50	189.52	7.47	190.67	3.39	191.98	15.93	191.85	8.35	190.14	
18-Apr-92	02:12:14	1.50	189.52	7.46	190.66	3.39	191.98	15.92	191.84	8.35	190.14	
18-Apr-92	02:27:14	1.49	189.51	7.45	190.65	3.40	191.99	15.92	191.84	8.35	190.14	
18-Apr-92	02:42:14	1.48	189.50	7.45	190.65	3.37	191.96	15.93	191.85	8.34	190.13	
18-Apr-92	02:57:14	1.48	189.50	7.45	190.65	3.40	191.99	15.93	191.85	8.35	190.14	
18-Apr-92	03:12:14	1.49	189.51	7.45	190.65	3.40	191.99	15.93	191.85	8.35	190.14	
18-Apr-92	03:27:14	1.49	189.51	7.46	190.66	3.40	191.99	15.93	191.85	8.35	190.14	
18-Apr-92	03:42:14	1.50	189.52	7.46	190.66	3.45	192.04	15.93	191.85	8.35	190.14	
18-Apr-92	03:57:14	1.50	189.52	7.46	190.66	3.49	192.08	15.93	191.85	8.36	190.15	
18-Apr-92	04:12:14	1.50	189.52	7.46	190.66	3.48	192.07	15.93	191.85	8.35	190.14	
18-Apr-92	04:27:14	1.50	189.52	7.45	190.65	3.51	192.10	15.93	191.85	8.35	190.14	
18-Apr-92	04:42:14	1.49	189.51	7.45	190.65	3.51	192.10	15.93	191.85	8.35	190.14	
18-Apr-92	04:57:14	1.48	189.50	7.45	190.65	3.53	192.12	15.93	191.85	8.35	190.14	
18-Apr-92	05:12:14	1.47	189.49	7.45	190.65	3.53	192.12	15.93	191.85	8.34	190.13	
18-Apr-92	05:27:14	1.46	189.48	7.44	190.64	3.54	192.13	15.93	191.85	8.34	190.13	
18-Apr-92	05:42:14	1.45	189.47	7.43	190.63	3.55	192.14	15.93	191.85	8.34	190.13	
18-Apr-92	05:57:14	1.44	189.46	7.42	190.62	3.56	192.15	15.92	191.84	8.33	190.12	
18-Apr-92	06:12:14	1.44	189.46	7.42	190.62	3.57	192.16	15.92	191.84	8.32	190.11	
18-Apr-92	06:27:14	1.43	189.45	7.42	190.62	3.57	192.16	15.92	191.84	8.32	190.11	
18-Apr-92	06:42:14	1.43	189.45	7.41	190.61	3.57	192.16	15.92	191.84	8.32	190.11	
18-Apr-92	06:57:14	1.42	189.44	7.41	190.61	3.57	192.16	15.92	191.84	8.31	190.10	
18-Apr-92	07:12:14	1.41	189.43	7.40	190.60	3.58	192.17	16.28	192.20	8.31	190.10	

Date Monday April 27, 1992 9:23 AM
PlotFile B:\STORMH2O1.PRN
DataFile B:\STORMH2O
ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2		Analog#02 MW-3 5psi.. FT..... SWB-1		Analog#03 MW-3D 5psi. ft..... MW-3	6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
18-Apr-92	07:27:14	1.41	189.43	7.40	190.60	3.59	192.18	15.91	191.83	8.31	190.10	
18-Apr-92	07:42:14	1.41	189.43	7.41	190.61	3.60	192.19	15.91	191.83	8.31	190.10	
18-Apr-92	07:57:14	1.40	189.42	7.39	190.59	3.60	192.19	15.91	191.83	8.30	190.09	
18-Apr-92	08:12:14	1.40	189.42	7.41	190.61	3.61	192.20	16.28	192.20	8.30	190.09	
18-Apr-92	08:27:14	1.40	189.42	7.39	190.59	3.61	192.20	15.91	191.83	8.30	190.09	
18-Apr-92	08:42:14	1.39	189.41	7.39	190.59	3.61	192.20	15.91	191.83	8.30	190.09	
18-Apr-92	08:57:14	1.39	189.41	7.38	190.58	3.62	192.21	15.91	191.83	8.30	190.09	
18-Apr-92	09:12:14	1.39	189.41	7.39	190.59	3.62	192.21	15.91	191.83	8.30	190.09	
18-Apr-92	09:27:14	1.39	189.41	7.38	190.58	3.63	192.22	15.91	191.83	8.30	190.09	
18-Apr-92	09:42:14	1.38	189.40	7.37	190.57	3.63	192.22	15.91	191.83	8.30	190.09	
18-Apr-92	09:57:14	1.38	189.40	7.37	190.57	3.64	192.23	15.91	191.83	8.30	190.09	
18-Apr-92	10:12:14	1.38	189.40	7.38	190.58	3.65	192.24	15.91	191.83	8.29	190.08	
18-Apr-92	10:27:14	1.37	189.39	7.37	190.57	3.65	192.24	15.91	191.83	8.29	190.08	
18-Apr-92	10:42:14	1.37	189.39	7.37	190.57	3.66	192.25	15.91	191.83	8.29	190.08	
18-Apr-92	10:57:14	1.37	189.39	7.37	190.57	3.67	192.26	15.91	191.83	8.29	190.08	
18-Apr-92	11:12:14	1.36	189.38	7.36	190.56	3.66	192.25	15.91	191.83	8.29	190.08	
18-Apr-92	11:27:14	1.36	189.38	7.37	190.57	3.65	192.24	15.91	191.83	8.29	190.08	
18-Apr-92	11:42:14	1.36	189.38	7.36	190.56	3.65	192.24	15.91	191.83	8.29	190.08	
18-Apr-92	11:57:14	1.35	189.37	7.36	190.56	3.64	192.23	15.91	191.83	8.29	190.08	
18-Apr-92	12:12:14	1.35	189.37	7.38	190.58	3.63	192.22	15.91	191.83	8.29	190.08	
18-Apr-92	12:27:14	1.34	189.36	7.37	190.57	3.63	192.22	15.91	191.83	8.29	190.08	
18-Apr-92	12:42:14	1.34	189.36	7.35	190.55	3.62	192.21	15.91	191.83	8.29	190.08	
18-Apr-92	12:57:14	1.34	189.36	7.37	190.57	3.63	192.22	15.91	191.83	8.29	190.08	
18-Apr-92	13:12:14	1.34	189.36	7.36	190.56	3.64	192.23	15.92	191.84	8.29	190.08	
18-Apr-92	13:27:14	1.34	189.36	7.36	190.56	3.62	192.21	15.91	191.83	8.29	190.08	
18-Apr-92	13:42:14	1.34	189.36	7.37	190.57	3.63	192.22	15.91	191.83	8.29	190.08	
18-Apr-92	13:57:14	1.34	189.36	7.37	190.57	3.64	192.23	15.91	191.83	8.28	190.07	
18-Apr-92	14:12:14	1.34	189.36	7.35	190.55	3.37	191.96	15.91	191.83	8.28	190.07	
18-Apr-92	14:27:14	1.34	189.36	7.35	190.55	3.31	191.90	15.91	191.83	8.28	190.07	
18-Apr-92	14:42:14	1.34	189.36	7.35	190.55	3.07	191.66	15.91	191.83	8.28	190.07	
18-Apr-92	14:57:14	1.34	189.36	7.35	190.55	3.05	191.64	15.91	191.83	8.28	190.07	
18-Apr-92	15:12:14	1.34	189.36	7.35	190.55	2.98	191.57	15.91	191.83	8.28	190.07	
18-Apr-92	15:27:14	1.34	189.36	7.35	190.55	3.08	191.67	15.91	191.83	8.28	190.07	
18-Apr-92	15:42:14	1.34	189.36	7.35	190.55	3.05	191.64	15.91	191.83	8.28	190.07	
18-Apr-92	15:57:14	1.33	189.35	7.34	190.54	3.04	191.63	15.91	191.83	8.28	190.07	
18-Apr-92	16:12:14	1.33	189.35	7.34	190.54	3.04	191.63	15.92	191.84	8.28	190.07	
18-Apr-92	16:27:14	1.33	189.35	7.33	190.53	3.03	191.62	15.91	191.83	8.28	190.07	
18-Apr-92	16:42:14	1.32	189.34	7.33	190.53	3.06	191.65	15.91	191.83	8.27	190.06	
18-Apr-92	16:57:14	1.32	189.34	7.33	190.53	3.09	191.68	15.91	191.83	8.27	190.06	
18-Apr-92	17:12:14	1.31	189.33	7.32	190.52	3.08	191.67	15.91	191.83	8.27	190.06	

Date Monday April 27, 1992 9:23 AM
PlotFile B:\STORMH01.PRN
DataFile B:\STORMH2O
ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2	SWB-1	Analog#02 MW-3 5psi.. FT.....	MW-3	Analog#03 MW-3D 5psi. ft..... 6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
18-Apr-92	17:27:14	1.30	189.32	7.32	190.52	3.06	191.65	15.91	191.83	8.27	190.06
18-Apr-92	17:42:14	1.29	189.31	7.32	190.52	3.04	191.63	15.91	191.83	8.26	190.05
18-Apr-92	17:57:14	1.28	189.30	7.30	190.50	3.02	191.61	15.90	191.82	8.25	190.04
18-Apr-92	18:12:14	1.28	189.30	7.31	190.51	3.01	191.60	15.89	191.81	8.25	190.04
18-Apr-92	18:27:14	1.27	189.29	7.30	190.50	3.00	191.59	15.89	191.81	8.25	190.04
18-Apr-92	18:42:14	1.26	189.28	7.29	190.49	3.00	191.59	15.90	191.82	8.25	190.04
18-Apr-92	18:57:14	1.25	189.27	7.29	190.49	2.99	191.58	15.90	191.82	8.24	190.03
18-Apr-92	19:12:14	1.25	189.27	7.28	190.48	2.99	191.58	15.89	191.81	8.24	190.03
18-Apr-92	19:27:14	1.24	189.26	7.28	190.48	2.98	191.57	15.89	191.81	8.24	190.03
18-Apr-92	19:42:14	1.24	189.26	7.28	190.48	2.97	191.56	15.89	191.81	8.23	190.02
18-Apr-92	19:57:14	1.24	189.26	7.28	190.48	2.97	191.56	15.89	191.81	8.23	190.02
18-Apr-92	20:12:14	1.23	189.25	7.27	190.47	2.96	191.55	15.89	191.81	8.22	190.01
18-Apr-92	20:27:14	1.23	189.25	7.27	190.47	2.96	191.55	15.88	191.80	8.23	190.02
18-Apr-92	20:42:14	1.23	189.25	7.27	190.47	2.95	191.54	15.88	191.80	8.23	190.02
18-Apr-92	20:57:14	1.22	189.24	7.28	190.48	2.95	191.54	15.89	191.81	8.22	190.01
18-Apr-92	21:12:14	1.22	189.24	7.26	190.46	2.99	191.58	15.89	191.81	8.22	190.01
18-Apr-92	21:27:14	1.22	189.24	7.26	190.46	3.01	191.60	15.89	191.81	8.22	190.01
18-Apr-92	21:42:14	1.23	189.25	7.25	190.45	3.02	191.61	15.89	191.81	8.22	190.01
18-Apr-92	21:57:14	1.24	189.26	7.26	190.46	3.04	191.63	15.88	191.80	8.23	190.02
18-Apr-92	22:12:14	1.26	189.28	7.26	190.46	3.19	191.78	15.89	191.81	8.24	190.03
18-Apr-92	22:27:14	1.28	189.30	7.29	190.49	3.23	191.82	15.90	191.82	8.27	190.06
18-Apr-92	22:42:14	1.30	189.32	7.29	190.49	3.22	191.81	15.89	191.81	8.25	190.04
18-Apr-92	22:57:14	1.30	189.32	7.31	190.51	3.22	191.81	15.89	191.81	8.25	190.04
18-Apr-92	23:12:14	1.30	189.32	7.31	190.51	3.21	191.80	15.89	191.81	8.25	190.04
18-Apr-92	23:27:14	1.30	189.32	7.30	190.50	3.21	191.80	15.90	191.82	8.25	190.04
18-Apr-92	23:42:14	1.29	189.31	7.30	190.50	3.24	191.83	15.90	191.82	8.25	190.04
18-Apr-92	23:57:14	1.29	189.31	7.30	190.50	3.28	191.87	15.90	191.82	8.26	190.05
19-Apr-92	00:12:14	1.29	189.31	7.30	190.50	3.45	192.04	15.90	191.82	8.32	190.11
19-Apr-92	00:27:14	1.31	189.33	7.31	190.51	3.45	192.04	15.90	191.82	8.28	190.07
19-Apr-92	00:42:14	1.32	189.34	7.32	190.52	3.40	191.99	15.90	191.82	8.29	190.08
19-Apr-92	00:57:14	1.32	189.34	7.32	190.52	3.42	192.01	15.91	191.83	8.31	190.10
19-Apr-92	01:12:14	1.34	189.36	7.34	190.54	3.44	192.03	15.91	191.83	8.29	190.08
19-Apr-92	01:27:14	1.34	189.36	7.34	190.54	3.46	192.05	15.91	191.83	8.28	190.07
19-Apr-92	01:42:14	1.34	189.36	7.35	190.55	3.47	192.06	15.91	191.83	8.28	190.07
19-Apr-92	01:57:14	1.34	189.36	7.35	190.55	3.48	192.07	15.91	191.83	8.28	190.07
19-Apr-92	02:12:14	1.33	189.35	7.35	190.55	3.48	192.07	15.91	191.83	8.29	190.08
19-Apr-92	02:27:14	1.32	189.34	7.35	190.55	3.49	192.08	15.91	191.83	8.28	190.07
19-Apr-92	02:42:14	1.32	189.34	7.34	190.54	3.49	192.08	15.92	191.84	8.28	190.07
19-Apr-92	02:57:14	1.32	189.34	7.34	190.54	3.49	192.08	15.92	191.84	8.28	190.07
19-Apr-92	03:12:14	1.31	189.33	7.34	190.54	3.49	192.08	15.92	191.84	8.28	190.07

Date Monday April 27, 1992 9:23 AM
PlotFile B:\STORM' .01.PRN
DataFile B:\STORMH2O
ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2	SWB-1	Analog#02 MW-3 5psi.. FT.....	MW-3	Analog#03 MW-3D 5psi. ft..... 6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
19-Apr-92	03:27:14	1.31	189.33	7.33	190.53	3.49	192.08	15.91	191.83	8.27	190.06
19-Apr-92	03:42:14	1.30	189.32	7.33	190.53	3.49	192.08	15.91	191.83	8.27	190.06
19-Apr-92	03:57:14	1.30	189.32	7.32	190.52	3.49	192.08	15.91	191.83	8.27	190.06
19-Apr-92	04:12:14	1.30	189.32	7.33	190.53	3.49	192.08	15.91	191.83	8.27	190.06
19-Apr-92	04:27:14	1.31	189.33	7.33	190.53	3.49	192.08	15.91	191.83	8.27	190.06
19-Apr-92	04:42:14	1.31	189.33	7.34	190.54	3.49	192.08	15.91	191.83	8.27	190.06
19-Apr-92	04:57:14	1.32	189.34	7.34	190.54	3.49	192.08	15.91	191.83	8.27	190.06
19-Apr-92	05:12:14	1.34	189.36	7.36	190.56	3.49	192.08	15.92	191.84	8.27	190.06
19-Apr-92	05:27:14	1.35	189.37	7.36	190.56	3.49	192.08	15.92	191.84	8.28	190.07
19-Apr-92	05:42:14	1.36	189.38	7.37	190.57	3.49	192.08	15.92	191.84	8.29	190.08
19-Apr-92	05:57:14	1.37	189.39	7.36	190.56	3.49	192.08	15.92	191.84	8.29	190.08
19-Apr-92	06:12:14	1.38	189.40	7.37	190.57	3.49	192.08	15.93	191.85	8.30	190.09
19-Apr-92	06:27:14	1.38	189.40	7.37	190.57	3.49	192.08	15.93	191.85	8.30	190.09
19-Apr-92	06:42:14	1.39	189.41	7.38	190.58	3.49	192.08	15.93	191.85	8.30	190.09
19-Apr-92	06:57:14	1.39	189.41	7.38	190.58	3.50	192.09	15.93	191.85	8.30	190.09
19-Apr-92	07:12:14	1.40	189.42	7.38	190.58	3.49	192.08	15.93	191.85	8.31	190.10
19-Apr-92	07:27:14	1.40	189.42	7.39	190.59	3.49	192.08	15.93	191.85	8.31	190.10
19-Apr-92	07:42:14	1.40	189.42	7.39	190.59	3.49	192.08	15.93	191.85	8.31	190.10
19-Apr-92	07:57:14	1.40	189.42	7.38	190.58	3.50	192.09	15.93	191.85	8.31	190.10
19-Apr-92	08:12:14	1.40	189.42	7.38	190.58	3.50	192.09	15.93	191.85	8.31	190.10
19-Apr-92	08:27:14	1.40	189.42	7.39	190.59	3.50	192.09	15.93	191.85	8.31	190.10
19-Apr-92	08:42:14	1.40	189.42	7.39	190.59	3.50	192.09	15.93	191.85	8.32	190.11
19-Apr-92	08:57:14	1.40	189.42	7.39	190.59	3.50	192.09	15.93	191.85	8.32	190.11
19-Apr-92	09:12:14	1.40	189.42	7.38	190.58	3.51	192.10	15.93	191.85	8.32	190.11
19-Apr-92	09:27:14	1.39	189.41	7.39	190.59	3.51	192.10	15.93	191.85	8.32	190.11
19-Apr-92	09:42:14	1.39	189.41	7.38	190.58	3.51	192.10	15.94	191.86	8.32	190.11
19-Apr-92	09:57:14	1.39	189.41	7.38	190.58	3.51	192.10	15.93	191.85	8.32	190.11
19-Apr-92	10:12:14	1.39	189.41	7.38	190.58	3.52	192.11	15.94	191.86	8.31	190.10
19-Apr-92	10:27:14	1.38	189.40	7.38	190.58	3.52	192.11	15.94	191.86	8.32	190.11
19-Apr-92	10:42:14	1.38	189.40	7.37	190.57	3.52	192.11	15.94	191.86	8.31	190.10
19-Apr-92	10:57:14	1.38	189.40	7.38	190.58	3.53	192.12	15.94	191.86	8.31	190.10
19-Apr-92	11:12:14	1.37	189.39	7.37	190.57	3.54	192.13	15.94	191.86	8.31	190.10
19-Apr-92	11:27:14	1.36	189.38	7.37	190.57	3.54	192.13	15.94	191.86	8.31	190.10
19-Apr-92	11:42:14	1.36	189.38	7.36	190.56	3.54	192.13	15.95	191.87	8.31	190.10
19-Apr-92	11:57:14	1.34	189.36	7.38	190.58	3.54	192.13	15.93	191.85	8.30	190.09
19-Apr-92	12:12:14	1.33	189.35	7.36	190.56	3.55	192.14	15.93	191.85	8.30	190.09
19-Apr-92	12:27:14	1.32	189.34	7.35	190.55	3.54	192.13	15.93	191.85	8.30	190.09
19-Apr-92	12:42:14	1.31	189.33	7.36	190.56	3.54	192.13	15.93	191.85	8.29	190.08
19-Apr-92	12:57:14	1.30	189.32	7.33	190.53	3.54	192.13	15.93	191.85	8.29	190.08
19-Apr-92	13:12:14	1.28	189.30	7.33	190.53	3.53	192.12	15.93	191.85	8.28	190.07

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DataFile B:\STORMH2O
ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2	SWB-1	Analog#02 MW-3 5psi.. FT.....	MW-3	Analog#03 MW-3D 5psi. ft..... 6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
19-Apr-92	13:27:14	1.27	189.29	7.32	190.52	3.54	192.13	15.93	191.85	8.28	190.07
19-Apr-92	13:42:14	1.26	189.28	7.32	190.52	3.55	192.14	15.93	191.85	8.28	190.07
19-Apr-92	13:57:14	1.25	189.27	7.31	190.51	3.54	192.13	15.92	191.84	8.27	190.06
19-Apr-92	14:12:14	1.25	189.27	7.31	190.51	3.54	192.13	15.92	191.84	8.26	190.05
19-Apr-92	14:27:14	1.24	189.26	7.31	190.51	3.53	192.12	15.92	191.84	8.26	190.05
19-Apr-92	14:42:14	1.23	189.25	7.29	190.49	3.53	192.12	15.92	191.84	8.26	190.05
19-Apr-92	14:57:14	1.23	189.25	7.30	190.50	3.53	192.12	15.92	191.84	8.26	190.05
19-Apr-92	15:12:14	1.23	189.25	7.29	190.49	3.56	192.15	15.92	191.84	8.26	190.05
19-Apr-92	15:27:14	1.23	189.25	7.29	190.49	3.58	192.17	15.92	191.84	8.26	190.05
19-Apr-92	15:42:14	1.23	189.25	7.29	190.49	3.58	192.17	15.92	191.84	8.26	190.05
19-Apr-92	15:57:14	1.23	189.25	7.29	190.49	3.44	192.03	15.92	191.84	8.25	190.04
19-Apr-92	16:12:14	1.22	189.24	7.29	190.49	3.34	191.93	15.92	191.84	8.25	190.04
19-Apr-92	16:27:14	1.22	189.24	7.29	190.49	3.10	191.69	15.92	191.84	8.25	190.04
19-Apr-92	16:42:14	1.21	189.23	7.28	190.48	3.07	191.66	15.91	191.83	8.25	190.04
19-Apr-92	16:57:14	1.21	189.23	7.28	190.48	3.02	191.61	15.91	191.83	8.25	190.04
19-Apr-92	17:12:14	1.20	189.22	7.27	190.47	3.02	191.61	15.92	191.84	8.25	190.04
19-Apr-92	17:27:14	1.20	189.22	7.28	190.48	3.01	191.60	15.92	191.84	8.24	190.03
19-Apr-92	17:42:14	1.20	189.22	7.27	190.47	3.02	191.61	15.91	191.83	8.24	190.03
19-Apr-92	17:57:14	1.20	189.22	7.27	190.47	3.01	191.60	15.91	191.83	8.24	190.03
19-Apr-92	18:12:14	1.20	189.22	7.26	190.46	3.02	191.61	15.91	191.83	8.24	190.03
19-Apr-92	18:27:14	1.20	189.22	7.26	190.46	3.01	191.60	15.91	191.83	8.23	190.02
19-Apr-92	18:42:14	1.19	189.21	7.27	190.47	3.01	191.60	15.91	191.83	8.23	190.02
19-Apr-92	18:57:14	1.19	189.21	7.27	190.47	3.00	191.59	15.91	191.83	8.23	190.02
19-Apr-92	19:12:14	1.19	189.21	7.26	190.46	3.00	191.59	15.91	191.83	8.23	190.02
19-Apr-92	19:27:14	1.19	189.21	7.26	190.46	3.01	191.60	15.91	191.83	8.23	190.02
19-Apr-92	19:42:14	1.19	189.21	7.25	190.45	3.00	191.59	15.91	191.83	8.23	190.02
19-Apr-92	19:57:14	1.19	189.21	7.25	190.45	3.00	191.59	15.90	191.82	8.22	190.01
19-Apr-92	20:12:14	1.19	189.21	7.25	190.45	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	20:27:14	1.19	189.21	7.26	190.46	2.99	191.58	15.90	191.82	8.23	190.02
19-Apr-92	20:42:14	1.19	189.21	7.24	190.44	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	20:57:14	1.19	189.21	7.25	190.45	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	21:12:14	1.18	189.20	7.25	190.45	2.98	191.57	15.90	191.82	8.22	190.01
19-Apr-92	21:27:14	1.18	189.20	7.26	190.46	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	21:42:14	1.18	189.20	7.25	190.45	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	21:57:14	1.18	189.20	7.24	190.44	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	22:12:14	1.18	189.20	7.24	190.44	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	22:27:14	1.18	189.20	7.24	190.44	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	22:42:14	1.18	189.20	7.25	190.45	2.99	191.58	15.90	191.82	8.22	190.01
19-Apr-92	22:57:14	1.18	189.20	7.23	190.43	2.98	191.57	15.90	191.82	8.21	190.00
19-Apr-92	23:12:14	1.18	189.20	7.23	190.43	2.98	191.57	15.89	191.81	8.21	190.00

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ITT Storm Water
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ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2	SWB-1	Analog#02 MW-3 5psi.. FT.....	MW-3	Analog#03 MW-3D 5psi. ft..... 6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
19-Apr-92	23:27:14	1.18	189.20	7.24	190.44	2.98	191.57	15.90	191.82	8.22	190.01
19-Apr-92	23:42:14	1.18	189.20	7.24	190.44	2.98	191.57	15.90	191.82	8.22	190.01
19-Apr-92	23:57:14	1.18	189.20	7.24	190.44	2.98	191.57	15.90	191.82	8.22	190.01
20-Apr-92	00:12:14	1.18	189.20	7.23	190.43	2.98	191.57	15.90	191.82	8.22	190.01
20-Apr-92	00:27:14	1.18	189.20	7.23	190.43	2.98	191.57	15.90	191.82	8.21	190.00
20-Apr-92	00:42:14	1.18	189.20	7.23	190.43	2.98	191.57	15.90	191.82	8.21	190.00
20-Apr-92	00:57:14	1.18	189.20	7.23	190.43	2.98	191.57	15.89	191.81	8.21	190.00
20-Apr-92	01:12:14	1.17	189.19	7.23	190.43	2.98	191.57	15.90	191.82	8.21	190.00
20-Apr-92	01:27:14	1.17	189.19	7.23	190.43	2.97	191.56	15.89	191.81	8.21	190.00
20-Apr-92	01:42:14	1.17	189.19	7.23	190.43	2.98	191.57	15.90	191.82	8.22	190.01
20-Apr-92	01:57:14	1.17	189.19	7.22	190.42	2.99	191.58	15.90	191.82	8.22	190.01
20-Apr-92	02:12:14	1.17	189.19	7.22	190.42	2.98	191.57	15.90	191.82	8.21	190.00
20-Apr-92	02:27:14	1.17	189.19	7.22	190.42	2.98	191.57	15.90	191.82	8.22	190.01
20-Apr-92	02:42:14	1.17	189.19	7.24	190.44	2.98	191.57	15.90	191.82	8.22	190.01
20-Apr-92	02:57:14	1.17	189.19	7.22	190.42	2.97	191.56	15.90	191.82	8.21	190.00
20-Apr-92	03:12:14	1.17	189.19	7.22	190.42	2.97	191.56	15.90	191.82	8.21	190.00
20-Apr-92	03:27:14	1.17	189.19	7.23	190.43	2.96	191.55	15.90	191.82	8.21	190.00
20-Apr-92	03:42:14	1.17	189.19	7.22	190.42	2.97	191.56	15.89	191.81	8.21	190.00
20-Apr-92	03:57:14	1.17	189.19	7.22	190.42	2.96	191.55	15.89	191.81	8.21	190.00
20-Apr-92	04:12:14	1.17	189.19	7.22	190.42	2.96	191.55	15.89	191.81	8.21	190.00
20-Apr-92	04:27:14	1.17	189.19	7.21	190.41	2.98	191.57	15.89	191.81	8.21	190.00
20-Apr-92	04:42:14	1.18	189.20	7.21	190.41	2.99	191.58	15.90	191.82	8.21	190.00
20-Apr-92	04:57:14	1.18	189.20	7.22	190.42	2.97	191.56	15.90	191.82	8.21	190.00
20-Apr-92	05:12:14	1.17	189.19	7.23	190.43	2.98	191.57	15.90	191.82	8.21	190.00
20-Apr-92	05:27:14	1.17	189.19	7.21	190.41	2.97	191.56	15.90	191.82	8.21	190.00
20-Apr-92	05:42:14	1.17	189.19	7.22	190.42	2.99	191.58	15.90	191.82	8.21	190.00
20-Apr-92	05:57:14	1.17	189.19	7.21	190.41	2.97	191.56	15.90	191.82	8.21	190.00
20-Apr-92	06:12:14	1.17	189.19	7.21	190.41	2.97	191.56	15.90	191.82	8.21	190.00
20-Apr-92	06:27:14	1.17	189.19	7.21	190.41	2.97	191.56	15.90	191.82	8.21	190.00
20-Apr-92	06:42:14	1.17	189.19	7.21	190.41	2.97	191.56	15.89	191.81	8.21	190.00
20-Apr-92	06:57:14	1.17	189.19	7.21	190.41	2.97	191.56	15.89	191.81	8.20	189.99
20-Apr-92	07:12:14	1.17	189.19	7.21	190.41	2.98	191.57	15.89	191.81	8.20	189.99
20-Apr-92	07:27:14	1.17	189.19	7.21	190.41	2.96	191.55	15.89	191.81	8.21	190.00
20-Apr-92	07:42:14	1.17	189.19	7.21	190.41	2.99	191.58	15.89	191.81	8.21	190.00
20-Apr-92	07:57:14	1.17	189.19	7.21	190.41	2.99	191.58	15.89	191.81	8.20	189.99
20-Apr-92	08:12:14	1.17	189.19	7.21	190.41	2.99	191.58	15.89	191.81	8.21	190.00
20-Apr-92	08:27:14	1.17	189.19	7.21	190.41	2.99	191.58	15.89	191.81	8.21	190.00
20-Apr-92	08:42:14	1.17	189.19	7.21	190.41	2.96	191.55	15.89	191.81	8.21	190.00
20-Apr-92	08:57:14	1.17	189.19	7.21	190.41	2.99	191.58	15.89	191.81	8.21	190.00
20-Apr-92	09:12:14	1.17	189.19	7.21	190.41	3.00	191.59	15.89	191.81	8.21	190.00

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ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2		Analog#02 MW-3 5psi.. FT..... SWB-1		Analog#03 MW-3D 5psi. ft..... MW-3	6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
20-Apr-92	09:27:14	1.17	189.19	7.20	190.40	3.00	191.59	15.89	191.81	8.21	190.00	
20-Apr-92	09:42:14	1.17	189.19	7.20	190.40	3.01	191.60	15.89	191.81	8.20	189.99	
20-Apr-92	09:57:14	1.17	189.19	7.20	190.40	3.00	191.59	15.89	191.81	8.20	189.99	
20-Apr-92	10:12:14	1.16	189.18	7.21	190.41	3.01	191.60	15.89	191.81	8.21	190.00	
20-Apr-92	10:27:14	1.16	189.18	7.20	190.40	3.01	191.60	15.89	191.81	8.20	189.99	
20-Apr-92	10:42:14	1.16	189.18	7.20	190.40	3.01	191.60	15.89	191.81	8.20	189.99	
20-Apr-92	10:57:14	1.16	189.18	7.21	190.41	3.03	191.62	15.89	191.81	8.21	190.00	
20-Apr-92	11:12:14	1.16	189.18	7.21	190.41	3.04	191.63	15.89	191.81	8.20	189.99	
20-Apr-92	11:27:14	1.15	189.17	7.20	190.40	3.09	191.68	15.89	191.81	8.21	190.00	
20-Apr-92	11:42:14	1.15	189.17	7.20	190.40	3.09	191.68	15.89	191.81	8.20	189.99	
20-Apr-92	11:57:14	1.15	189.17	7.20	190.40	3.09	191.68	15.88	191.80	8.20	189.99	
20-Apr-92	12:12:14	1.15	189.17	7.21	190.41	3.11	191.70	15.88	191.80	8.21	190.00	
20-Apr-92	12:27:14	1.14	189.16	7.21	190.41	3.11	191.70	15.89	191.81	8.20	189.99	
20-Apr-92	12:42:14	1.14	189.16	7.20	190.40	3.11	191.70	15.90	191.82	8.20	189.99	
20-Apr-92	12:57:14	1.14	189.16	7.20	190.40	3.13	191.72	15.91	191.83	8.20	189.99	
20-Apr-92	13:12:14	1.13	189.15	7.20	190.40	3.15	191.74	15.95	191.87	8.20	189.99	
20-Apr-92	13:27:14	1.13	189.15	7.20	190.40	3.14	191.73	15.94	191.86	8.21	190.00	
20-Apr-92	13:42:14	1.13	189.15	7.20	190.40	3.13	191.72	15.91	191.83	8.20	189.99	
20-Apr-92	13:57:14	1.13	189.15	7.20	190.40	3.15	191.74	15.93	191.85	8.21	190.00	
20-Apr-92	14:12:14	1.13	189.15	7.20	190.40	3.14	191.73	15.91	191.83	8.21	190.00	
20-Apr-92	14:27:14	1.13	189.15	7.20	190.40	3.16	191.75	15.91	191.83	8.20	189.99	
20-Apr-92	14:42:14	1.13	189.15	7.20	190.40	3.14	191.73	15.91	191.83	8.20	189.99	
20-Apr-92	14:57:14	1.13	189.15	7.20	190.40	3.13	191.72	15.91	191.83	8.20	189.99	
20-Apr-92	15:12:14	1.13	189.15	7.20	190.40	3.13	191.72	15.91	191.83	8.20	189.99	
20-Apr-92	15:27:14	1.13	189.15	7.20	190.40	3.14	191.73	15.91	191.83	8.21	190.00	
20-Apr-92	15:42:14	1.12	189.14	7.18	190.38	3.13	191.72	15.91	191.83	8.20	189.99	
20-Apr-92	15:57:14	1.13	189.15	7.19	190.39	3.14	191.73	15.91	191.83	8.20	189.99	
20-Apr-92	16:12:14	1.12	189.14	7.19	190.39	3.12	191.71	15.90	191.82	8.20	189.99	
20-Apr-92	16:27:14	1.12	189.14	7.20	190.40	3.12	191.71	15.90	191.82	8.20	189.99	
20-Apr-92	16:42:14	1.12	189.14	7.20	190.40	3.12	191.71	15.90	191.82	8.20	189.99	
20-Apr-92	16:57:14	1.12	189.14	7.20	190.40	3.12	191.71	15.90	191.82	8.20	189.99	
20-Apr-92	17:12:14	1.12	189.14	7.20	190.40	3.13	191.72	15.90	191.82	8.20	189.99	
20-Apr-92	17:27:14	1.12	189.14	7.20	190.40	3.12	191.71	15.90	191.82	8.19	189.98	
20-Apr-92	17:42:14	1.13	189.15	7.20	190.40	3.11	191.70	15.90	191.82	8.19	189.98	
20-Apr-92	17:57:14	1.13	189.15	7.20	190.40	3.12	191.71	15.90	191.82	8.20	189.99	
20-Apr-92	18:12:14	1.12	189.14	7.20	190.40	3.04	191.63	15.89	191.81	8.20	189.99	
20-Apr-92	18:27:14	1.12	189.14	7.19	190.39	3.05	191.64	15.89	191.81	8.20	189.99	
20-Apr-92	18:42:14	1.12	189.14	7.19	190.39	3.04	191.63	15.89	191.81	8.20	189.99	
20-Apr-92	18:57:14	1.12	189.14	7.19	190.39	3.11	191.70	15.89	191.81	8.20	189.99	
20-Apr-92	19:12:14	1.12	189.14	7.20	190.40	3.10	191.69	15.89	191.81	8.20	189.99	

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ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT.....		Analog#02 MW-3 5psi.. FT.....		Analog#03 MW-3D 5psi. ft.....		Analog#04 MW-2D 10psi ft.....		Analog#05 Mw-2 5psi.. ft.....	
	MW-2		SWB-1		MW-3	6.75'	MW-3D		MW-2D		MW-2
20-Apr-92	19:27:14	1.12	189.14	7.19	190.39	3.03	191.62	15.89	191.81	8.20	189.99
20-Apr-92	19:42:14	1.12	189.14	7.20	190.40	3.03	191.62	15.89	191.81	8.20	189.99
20-Apr-92	19:57:14	1.12	189.14	7.19	190.39	3.03	191.62	15.89	191.81	8.20	189.99
20-Apr-92	20:12:14	1.12	189.14	7.20	190.40	3.10	191.69	15.89	191.81	8.19	189.98
20-Apr-92	20:27:14	1.12	189.14	7.19	190.39	3.03	191.62	15.89	191.81	8.20	189.99
20-Apr-92	20:42:14	1.12	189.14	7.18	190.38	3.06	191.65	15.88	191.80	8.19	189.98
20-Apr-92	20:57:14	1.12	189.14	7.19	190.39	3.02	191.61	15.88	191.80	8.19	189.98
20-Apr-92	21:12:14	1.12	189.14	7.19	190.39	3.08	191.67	15.88	191.80	8.19	189.98
20-Apr-92	21:27:14	1.12	189.14	7.19	190.39	3.02	191.61	15.88	191.80	8.19	189.98
20-Apr-92	21:42:14	1.12	189.14	7.19	190.39	3.03	191.62	15.88	191.80	8.19	189.98
20-Apr-92	21:57:14	1.12	189.14	7.19	190.39	3.08	191.67	15.88	191.80	8.19	189.98
20-Apr-92	22:12:14	1.12	189.14	7.20	190.40	3.08	191.67	15.88	191.80	8.20	189.99
20-Apr-92	22:27:14	1.12	189.14	7.19	190.39	3.09	191.68	15.88	191.80	8.19	189.98
20-Apr-92	22:42:14	1.12	189.14	7.19	190.39	3.09	191.68	15.88	191.80	8.19	189.98
20-Apr-92	22:57:14	1.12	189.14	7.18	190.38	3.10	191.69	15.88	191.80	8.20	189.99
20-Apr-92	23:12:14	1.13	189.15	7.19	190.39	3.09	191.68	15.88	191.80	8.20	189.99
20-Apr-92	23:27:14	1.13	189.15	7.18	190.38	3.08	191.67	15.88	191.80	8.19	189.98
20-Apr-92	23:42:14	1.13	189.15	7.19	190.39	3.09	191.68	15.88	191.80	8.20	189.99
20-Apr-92	23:57:14	1.13	189.15	7.19	190.39	3.08	191.67	15.88	191.80	8.20	189.99
21-Apr-92	00:12:14	1.13	189.15	7.19	190.39	3.10	191.69	15.88	191.80	8.19	189.98
21-Apr-92	00:27:14	1.13	189.15	7.18	190.38	3.11	191.70	15.88	191.80	8.20	189.99
21-Apr-92	00:42:14	1.13	189.15	7.19	190.39	3.10	191.69	15.88	191.80	8.19	189.98
21-Apr-92	00:57:14	1.13	189.15	7.19	190.39	3.11	191.70	15.88	191.80	8.19	189.98
21-Apr-92	01:12:14	1.13	189.15	7.18	190.38	3.10	191.69	15.88	191.80	8.20	189.99
21-Apr-92	01:27:14	1.13	189.15	7.18	190.38	3.07	191.66	15.88	191.80	8.20	189.99
21-Apr-92	01:42:14	1.13	189.15	7.18	190.38	3.02	191.61	15.88	191.80	8.20	189.99
21-Apr-92	01:57:14	1.13	189.15	7.18	190.38	3.06	191.65	15.88	191.80	8.20	189.99
21-Apr-92	02:12:14	1.13	189.15	7.17	190.37	3.03	191.62	15.89	191.81	8.20	189.99
21-Apr-92	02:27:14	1.13	189.15	7.18	190.38	3.03	191.62	15.88	191.80	8.20	189.99
21-Apr-92	02:42:14	1.13	189.15	7.17	190.37	3.03	191.62	15.88	191.80	8.20	189.99
21-Apr-92	02:57:14	1.13	189.15	7.19	190.39	3.03	191.62	15.88	191.80	8.20	189.99
21-Apr-92	03:12:14	1.13	189.15	7.17	190.37	3.03	191.62	15.88	191.80	8.20	189.99
21-Apr-92	03:27:14	1.13	189.15	7.18	190.38	3.03	191.62	15.88	191.80	8.20	189.99
21-Apr-92	03:42:14	1.13	189.15	7.19	190.39	3.03	191.62	15.88	191.80	8.20	189.99
21-Apr-92	03:57:14	1.13	189.15	7.17	190.37	3.02	191.61	15.88	191.80	8.19	189.98
21-Apr-92	04:12:14	1.13	189.15	7.17	190.37	3.02	191.61	15.87	191.79	8.19	189.98
21-Apr-92	04:27:14	1.12	189.14	7.17	190.37	3.02	191.61	15.88	191.80	8.19	189.98
21-Apr-92	04:42:14	1.13	189.15	7.17	190.37	3.02	191.61	15.88	191.80	8.19	189.98
21-Apr-92	04:57:14	1.13	189.15	7.18	190.38	3.02	191.61	15.88	191.80	8.20	189.99
21-Apr-92	05:12:14	1.12	189.14	7.17	190.37	3.03	191.62	15.88	191.80	8.20	189.99

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ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2		Analog#02 MW-3 5psi.. FT..... SWB-1		Analog#03 MW-3D 5psi. ft..... MW-3	6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
21-Apr-92	05:27:14	1.13	189.15	7.17	190.37	3.02	191.61	15.88	191.80	8.19	189.98	
21-Apr-92	05:42:14	1.12	189.14	7.18	190.38	3.02	191.61	15.88	191.80	8.19	189.98	
21-Apr-92	05:57:14	1.12	189.14	7.18	190.38	3.03	191.62	15.88	191.80	8.19	189.98	
21-Apr-92	06:12:14	1.12	189.14	7.17	190.37	3.03	191.62	15.88	191.80	8.19	189.98	
21-Apr-92	06:27:14	1.12	189.14	7.18	190.38	3.08	191.67	15.87	191.79	8.19	189.98	
21-Apr-92	06:42:14	1.13	189.15	7.17	190.37	3.08	191.67	15.87	191.79	8.19	189.98	
21-Apr-92	06:57:14	1.13	189.15	7.17	190.37	3.07	191.66	15.87	191.79	8.19	189.98	
21-Apr-92	07:12:14	1.13	189.15	7.18	190.38	3.03	191.62	15.87	191.79	8.19	189.98	
21-Apr-92	07:27:14	1.12	189.14	7.18	190.38	3.07	191.66	15.87	191.79	8.19	189.98	
21-Apr-92	07:42:14	1.12	189.14	7.17	190.37	3.03	191.62	15.87	191.79	8.19	189.98	
21-Apr-92	07:57:14	1.12	189.14	7.17	190.37	3.03	191.62	15.87	191.79	8.19	189.98	
21-Apr-92	08:12:14	1.12	189.14	7.16	190.36	3.03	191.62	15.88	191.80	8.20	189.99	
21-Apr-92	08:27:14	1.12	189.14	7.16	190.36	3.03	191.62	15.88	191.80	8.19	189.98	
21-Apr-92	08:42:14	1.11	189.13	7.17	190.37	3.04	191.63	15.88	191.80	8.19	189.98	
21-Apr-92	08:57:14	1.12	189.14	7.16	190.36	3.04	191.63	15.87	191.79	8.19	189.98	
21-Apr-92	09:12:14	1.11	189.13	7.16	190.36	3.11	191.70	15.87	191.79	8.19	189.98	
21-Apr-92	09:27:14	1.11	189.13	7.16	190.36	3.12	191.71	15.87	191.79	8.19	189.98	
21-Apr-92	09:42:14	1.11	189.13	7.16	190.36	3.12	191.71	15.87	191.79	8.19	189.98	
21-Apr-92	09:57:14	1.10	189.12	7.16	190.36	3.11	191.70	15.87	191.79	8.18	189.97	
21-Apr-92	10:12:14	1.10	189.12	7.16	190.36	3.11	191.70	15.87	191.79	8.18	189.97	
21-Apr-92	10:27:14	1.10	189.12	7.16	190.36	3.12	191.71	15.86	191.78	8.18	189.97	
21-Apr-92	10:42:14	1.10	189.12	7.15	190.35	3.10	191.69	15.86	191.78	8.18	189.97	
21-Apr-92	10:57:14	1.09	189.11	7.15	190.35	3.10	191.69	15.86	191.78	8.18	189.97	
21-Apr-92	11:12:14	1.09	189.11	7.15	190.35	3.08	191.67	15.86	191.78	8.18	189.97	
21-Apr-92	11:27:14	1.08	189.10	7.16	190.36	3.08	191.67	15.86	191.78	8.18	189.97	
21-Apr-92	11:42:14	1.08	189.10	7.16	190.36	3.08	191.67	15.86	191.78	8.18	189.97	
21-Apr-92	11:57:14	1.08	189.10	7.14	190.34	3.07	191.66	15.86	191.78	8.18	189.97	
21-Apr-92	12:12:14	1.07	189.09	7.15	190.35	3.09	191.68	15.86	191.78	8.17	189.96	
21-Apr-92	12:27:14	1.06	189.08	7.15	190.35	3.09	191.68	15.87	191.79	8.17	189.96	
21-Apr-92	12:42:14	1.06	189.08	7.14	190.34	3.08	191.67	15.86	191.78	8.17	189.96	
21-Apr-92	12:57:14	1.05	189.07	7.14	190.34	3.09	191.68	15.86	191.78	8.17	189.96	
21-Apr-92	13:12:14	1.05	189.07	7.14	190.34	3.08	191.67	15.87	191.79	8.18	189.97	
21-Apr-92	13:27:14	1.03	189.05	7.14	190.34	3.04	191.63	15.86	191.78	8.17	189.96	
21-Apr-92	13:42:14	1.03	189.05	7.15	190.35	3.07	191.66	15.87	191.79	8.17	189.96	
21-Apr-92	13:57:14	1.02	189.04	7.13	190.33	3.07	191.66	15.85	191.77	8.17	189.96	
21-Apr-92	14:12:14	1.02	189.04	7.13	190.33	3.00	191.59	15.86	191.77	8.17	189.96	
21-Apr-92	14:27:14	1.02	189.04	7.17	190.37	3.11	191.70	15.86	191.78	8.17	189.96	
21-Apr-92	14:42:14	1.00	189.02	7.15	190.35	3.08	191.67	15.85	191.77	8.17	189.96	
21-Apr-92	14:57:14	1.00	189.02	7.15	190.35	3.09	191.68	15.85	191.77	8.17	189.96	
21-Apr-92	15:12:14	0.99	189.01	7.14	190.34	3.05	191.64	15.85	191.77	8.16	189.95	

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ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT.....		Analog#02 MW-3 5psi.. FT.....		Analog#03 MW-3D 5psi. ft.....		Analog#04 MW-2D 10psi ft.....		Analog#05 Mw-2 5psi.. ft.....	
	MW-2		SWB-1		MW-3	6.75'	MW-3D		MW-2D		MW-2
21-Apr-92	15:27:14	0.99	189.01	7.14	190.34	3.00	191.59	15.85	191.77	8.16	189.95
21-Apr-92	15:42:14	0.99	189.01	7.15	190.35	3.09	191.68	15.85	191.77	8.16	189.95
21-Apr-92	15:57:14	0.99	189.01	7.14	190.34	3.03	191.62	15.85	191.77	8.16	189.95
21-Apr-92	16:12:14	0.98	189.00	7.15	190.35	3.11	191.70	15.85	191.77	8.16	189.95
21-Apr-92	16:27:14	0.98	189.00	7.16	190.36	3.11	191.70	15.85	191.77	8.16	189.95
21-Apr-92	16:42:14	0.99	189.01	7.13	190.33	3.09	191.68	15.85	191.77	8.16	189.95
21-Apr-92	16:57:14	0.99	189.01	7.13	190.33	3.08	191.67	15.84	191.76	8.16	189.95
21-Apr-92	17:12:14	0.99	189.01	7.14	190.34	3.08	191.67	15.84	191.76	8.16	189.95
21-Apr-92	17:27:14	0.99	189.01	7.13	190.33	3.07	191.66	15.84	191.76	8.15	189.94
21-Apr-92	17:42:14	0.99	189.01	7.14	190.34	3.07	191.66	15.84	191.76	8.15	189.94
21-Apr-92	17:57:14	0.99	189.01	7.14	190.34	3.06	191.65	15.84	191.76	8.16	189.95
21-Apr-92	18:12:14	1.00	189.02	7.13	190.33	3.05	191.64	15.84	191.76	8.16	189.95
21-Apr-92	18:27:14	0.99	189.01	7.14	190.34	3.06	191.65	15.84	191.76	8.16	189.95
21-Apr-92	18:42:14	0.99	189.01	7.14	190.34	2.98	191.57	15.84	191.76	8.16	189.95
21-Apr-92	18:57:14	0.99	189.01	7.14	190.34	3.05	191.64	15.84	191.76	8.16	189.95
21-Apr-92	19:12:14	1.00	189.02	7.13	190.33	2.98	191.57	15.84	191.76	8.16	189.95
21-Apr-92	19:27:14	0.99	189.01	7.14	190.34	3.00	191.59	15.83	191.75	8.16	189.95
21-Apr-92	19:42:14	0.99	189.01	7.16	190.36	3.01	191.60	15.83	191.75	8.16	189.95
21-Apr-92	19:57:14	1.00	189.02	7.14	190.34	2.98	191.57	15.83	191.75	8.16	189.95
21-Apr-92	20:12:14	1.01	189.03	7.14	190.34	2.99	191.58	15.84	191.76	8.16	189.95
21-Apr-92	20:27:14	1.00	189.02	7.14	190.34	2.99	191.58	15.83	191.75	8.16	189.95
21-Apr-92	20:42:14	1.00	189.02	7.15	190.35	3.00	191.59	15.83	191.75	8.16	189.95
21-Apr-92	20:57:14	1.00	189.02	7.14	190.34	3.00	191.59	15.83	191.75	8.16	189.95
21-Apr-92	21:12:14	1.00	189.02	7.14	190.34	3.01	191.60	15.83	191.75	8.16	189.95
21-Apr-92	21:27:14	1.00	189.02	7.13	190.33	3.00	191.59	15.83	191.75	8.16	189.95
21-Apr-92	21:42:14	1.01	189.03	7.14	190.34	3.00	191.59	15.83	191.75	8.16	189.95
21-Apr-92	21:57:14	1.01	189.03	7.12	190.32	3.00	191.59	15.83	191.75	8.16	189.95
21-Apr-92	22:12:14	1.01	189.03	7.14	190.34	3.04	191.63	15.84	191.76	8.16	189.95
21-Apr-92	22:27:14	1.01	189.03	7.15	190.35	2.99	191.58	15.83	191.75	8.16	189.95
21-Apr-92	22:42:14	1.01	189.03	7.14	190.34	2.99	191.58	15.84	191.76	8.16	189.95
21-Apr-92	22:57:14	1.01	189.03	7.13	190.33	3.00	191.59	15.83	191.75	8.16	189.95
21-Apr-92	23:12:14	1.02	189.04	7.14	190.34	3.00	191.59	15.84	191.76	8.16	189.95
21-Apr-92	23:27:14	1.02	189.04	7.14	190.34	3.00	191.59	15.84	191.76	8.16	189.95
21-Apr-92	23:42:14	1.02	189.04	7.23	190.43	3.01	191.60	15.84	191.76	8.16	189.95
21-Apr-92	23:57:14	1.02	189.04	7.22	190.42	3.01	191.60	15.83	191.75	8.16	189.95
22-Apr-92	00:12:14	1.02	189.04	7.22	190.42	3.01	191.60	15.84	191.76	8.16	189.95
22-Apr-92	00:27:14	1.02	189.04	7.23	190.43	3.02	191.61	15.84	191.76	8.16	189.95
22-Apr-92	00:42:14	1.02	189.04	7.22	190.42	3.02	191.61	15.83	191.75	8.16	189.95
22-Apr-92	00:57:14	1.02	189.04	7.22	190.42	3.02	191.61	15.84	191.76	8.16	189.95
22-Apr-92	01:12:14	1.02	189.04	7.22	190.42	3.03	191.62	15.84	191.76	8.16	189.95

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ITT Storm Water
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33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT.....		Analog#02 MW-3 5psi.. FT.....		Analog#03 MW-3D 5psi. ft.....		Analog#04 MW-2D 10psi ft.....		Analog#05 Mw-2 5psi.. ft.....	
	MW-2		SWB-1		MW-3	6.75'	MW-3D		MW-2D		MW-2
22-Apr-92	01:27:14	1.02	189.04	7.23	190.43	3.03	191.62	15.84	191.76	8.16	189.95
22-Apr-92	01:42:14	1.02	189.04	7.23	190.43	3.01	191.60	15.84	191.76	8.16	189.95
22-Apr-92	01:57:14	1.02	189.04	7.24	190.44	3.02	191.61	15.84	191.76	8.16	189.95
22-Apr-92	02:12:14	1.02	189.04	7.22	190.42	3.02	191.61	15.84	191.76	8.16	189.95
22-Apr-92	02:27:14	1.02	189.04	7.22	190.42	3.02	191.61	15.84	191.76	8.16	189.95
22-Apr-92	02:42:14	1.02	189.04	7.22	190.42	3.01	191.60	15.84	191.76	8.16	189.95
22-Apr-92	02:57:14	1.02	189.04	7.22	190.42	3.02	191.61	15.84	191.76	8.16	189.95
22-Apr-92	03:12:14	1.02	189.04	7.22	190.42	3.02	191.61	15.84	191.76	8.16	189.95
22-Apr-92	03:27:14	1.02	189.04	7.21	190.41	3.02	191.61	15.83	191.75	8.16	189.95
22-Apr-92	03:42:14	1.03	189.05	7.21	190.41	3.04	191.63	15.84	191.76	8.16	189.95
22-Apr-92	03:57:14	1.03	189.05	7.22	190.42	3.03	191.62	15.83	191.75	8.16	189.95
22-Apr-92	04:12:14	1.03	189.05	7.22	190.42	3.04	191.63	15.83	191.75	8.16	189.95
22-Apr-92	04:27:14	1.03	189.05	7.20	190.40	3.03	191.62	15.83	191.75	8.16	189.95
22-Apr-92	04:42:14	1.05	189.07	7.21	190.41	3.05	191.64	15.83	191.75	8.16	189.95
22-Apr-92	04:57:14	1.06	189.08	7.22	190.42	3.05	191.64	15.84	191.76	8.17	189.96
22-Apr-92	05:12:14	1.06	189.08	7.22	190.42	3.05	191.64	15.84	191.76	8.17	189.96
22-Apr-92	05:27:14	1.06	189.08	7.22	190.42	3.05	191.64	15.84	191.76	8.18	189.97
22-Apr-92	05:42:14	1.07	189.09	7.22	190.42	3.05	191.64	15.84	191.76	8.17	189.96
22-Apr-92	05:57:14	1.07	189.09	7.22	190.42	3.05	191.64	15.84	191.76	8.17	189.96
22-Apr-92	06:12:14	1.06	189.08	7.21	190.41	3.05	191.64	15.83	191.75	8.17	189.96
22-Apr-92	06:27:14	1.06	189.08	7.21	190.41	3.05	191.64	15.83	191.75	8.17	189.96
22-Apr-92	06:42:14	1.06	189.08	7.22	190.42	3.04	191.63	15.83	191.75	8.17	189.96
22-Apr-92	06:57:14	1.06	189.08	7.22	190.42	3.04	191.63	15.83	191.75	8.16	189.95
22-Apr-92	07:12:14	1.06	189.08	7.21	190.41	3.04	191.63	15.83	191.75	8.17	189.96
22-Apr-92	07:27:14	1.06	189.08	7.22	190.42	3.04	191.63	15.83	191.74	8.16	189.95
22-Apr-92	07:42:14	1.06	189.08	7.22	190.42	3.04	191.63	15.83	191.75	8.16	189.95
22-Apr-92	07:57:14	1.06	189.08	7.21	190.41	3.04	191.63	15.83	191.75	8.16	189.95
22-Apr-92	08:12:14	1.06	189.08	7.20	190.40	3.04	191.63	15.83	191.74	8.17	189.96
22-Apr-92	08:27:14	1.06	189.08	7.23	190.43	3.04	191.63	15.83	191.74	8.17	189.96
22-Apr-92	08:42:14	1.06	189.08	7.21	190.41	3.04	191.63	15.83	191.74	8.16	189.95
22-Apr-92	08:57:14	1.06	189.08	7.21	190.41	3.04	191.63	15.83	191.75	8.16	189.95
22-Apr-92	09:12:14	1.06	189.08	7.21	190.41	3.04	191.63	15.82	191.74	8.16	189.95
22-Apr-92	09:27:14	1.06	189.08	7.20	190.40	3.04	191.63	15.83	191.75	8.16	189.95
22-Apr-92	09:42:14	1.06	189.08	7.21	190.41	3.04	191.63	15.83	191.75	8.16	189.95
22-Apr-92	09:57:14	1.06	189.08	7.22	190.42	3.04	191.63	15.83	191.75	8.17	189.96
22-Apr-92	10:12:14	1.06	189.08	7.22	190.42	3.04	191.63	15.83	191.75	8.17	189.96
22-Apr-92	10:27:14	1.06	189.08	7.22	190.42	3.04	191.63	15.83	191.75	8.17	189.96
22-Apr-92	10:42:14	1.06	189.08	7.21	190.41	3.03	191.62	15.82	191.74	8.16	189.95
22-Apr-92	10:57:14	1.06	189.08	7.21	190.41	3.04	191.63	15.82	191.74	8.16	189.95
22-Apr-92	11:12:14	1.06	189.08	7.21	190.41	3.03	191.62	15.82	191.74	8.17	189.96

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ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2		Analog#02 MW-3 5psi.. FT..... SWB-1		Analog#03 MW-3D 5psi. ft..... MW-3	6.75'	MW-3D	Analog#04 MW-2D 10psi ft.....	MW-2D	Analog#05 Mw-2 5psi.. ft.....	MW-2
22-Apr-92	11:27:14	1.06	189.08	7.22	190.42	3.04	191.63	15.82	191.74	8.17	189.96	
22-Apr-92	11:42:14	1.06	189.08	7.22	190.42	3.04	191.63	15.83	191.75	8.17	189.96	
22-Apr-92	11:57:14	1.06	189.08	7.22	190.42	3.05	191.64	15.83	191.75	8.17	189.96	
22-Apr-92	12:12:14	1.06	189.08	7.22	190.42	3.05	191.64	15.83	191.75	8.17	189.96	
22-Apr-92	12:27:14	1.07	189.09	7.22	190.42	3.04	191.63	15.83	191.75	8.18	189.97	
22-Apr-92	12:42:14	1.07	189.09	7.21	190.41	3.05	191.64	15.83	191.75	8.17	189.96	
22-Apr-92	12:57:14	1.08	189.10	7.21	190.41	3.05	191.64	15.83	191.75	8.17	189.96	
22-Apr-92	13:12:14	1.09	189.11	7.22	190.42	3.04	191.63	15.83	191.75	8.18	189.97	
22-Apr-92	13:27:14	1.11	189.13	7.25	190.45	3.04	191.63	15.83	191.75	8.19	189.98	
22-Apr-92	13:42:14	1.12	189.14	7.25	190.45	3.05	191.64	15.83	191.75	8.20	189.99	
22-Apr-92	13:57:14	1.13	189.15	7.25	190.45	3.06	191.65	15.84	191.76	8.20	189.99	
22-Apr-92	14:12:14	1.15	189.17	7.29	190.49	3.06	191.65	15.84	191.76	8.21	190.00	
22-Apr-92	14:27:14	1.16	189.18	7.31	190.51	3.06	191.65	15.84	191.76	8.21	190.00	
22-Apr-92	14:42:14	1.15	189.17	7.31	190.51	3.06	191.65	15.84	191.76	8.21	190.00	
22-Apr-92	14:57:14	1.14	189.16	7.31	190.51	3.06	191.65	15.85	191.77	8.22	190.01	
22-Apr-92	15:12:14	1.13	189.15	7.31	190.51	3.06	191.65	15.84	191.76	8.22	190.01	
22-Apr-92	15:27:14	1.11	189.13	7.31	190.51	3.10	191.69	15.85	191.77	8.21	190.00	
22-Apr-92	15:42:14	1.10	189.12	7.30	190.50	3.07	191.66	15.85	191.77	8.21	190.00	
22-Apr-92	15:57:14	1.09	189.11	7.29	190.49	3.10	191.69	15.85	191.77	8.21	190.00	
22-Apr-92	16:12:14	1.08	189.10	7.29	190.49	3.05	191.64	15.84	191.76	8.20	189.99	
22-Apr-92	16:27:14	1.08	189.10	7.28	190.48	3.06	191.65	15.85	191.77	8.20	189.99	
22-Apr-92	16:42:14	1.07	189.09	7.28	190.48	3.05	191.64	15.85	191.77	8.20	189.99	
22-Apr-92	16:57:14	1.07	189.09	7.28	190.48	3.06	191.65	15.85	191.77	8.20	189.99	
22-Apr-92	17:12:14	1.06	189.08	7.27	190.47	3.05	191.64	15.85	191.77	8.19	189.98	
22-Apr-92	17:27:14	1.06	189.08	7.27	190.47	3.06	191.65	15.84	191.76	8.19	189.98	
22-Apr-92	17:42:14	1.06	189.08	7.27	190.47	3.04	191.63	15.85	191.77	8.19	189.98	
22-Apr-92	17:57:14	1.06	189.08	7.27	190.47	3.04	191.63	15.85	191.77	8.19	189.98	
22-Apr-92	18:12:14	1.06	189.08	7.27	190.47	3.04	191.63	15.85	191.77	8.18	189.97	
22-Apr-92	18:27:14	1.06	189.08	7.26	190.46	3.04	191.63	15.85	191.77	8.19	189.98	
22-Apr-92	18:42:14	1.06	189.08	7.27	190.47	3.04	191.63	15.85	191.77	8.19	189.98	
22-Apr-92	18:57:14	1.07	189.09	7.27	190.47	3.03	191.62	15.84	191.76	8.19	189.98	
22-Apr-92	19:12:14	1.07	189.09	7.27	190.47	3.03	191.62	15.85	191.77	8.19	189.98	
22-Apr-92	19:27:14	1.07	189.09	7.27	190.47	3.02	191.61	15.84	191.76	8.19	189.98	
22-Apr-92	19:42:14	1.07	189.09	7.26	190.46	3.03	191.62	15.84	191.76	8.19	189.98	
22-Apr-92	19:57:14	1.07	189.09	7.26	190.46	3.02	191.61	15.84	191.76	8.18	189.97	
22-Apr-92	20:12:14	1.07	189.09	7.27	190.47	3.03	191.62	15.84	191.76	8.19	189.98	
22-Apr-92	20:27:14	1.07	189.09	7.25	190.45	3.03	191.62	15.83	191.75	8.18	189.97	
22-Apr-92	20:42:14	1.07	189.09	7.26	190.46	3.03	191.62	15.83	191.75	8.18	189.97	
22-Apr-92	20:57:14	1.07	189.09	7.25	190.45	3.04	191.63	15.83	191.75	8.18	189.97	
22-Apr-92	21:12:14	1.07	189.09	7.25	190.45	3.03	191.62	15.83	191.75	8.18	189.97	

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ITT Storm Water
Time of First Log in Specified Window
33710.6439 0.643909

ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT..... MW-2		Analog#02 MW-3 5psi.. FT..... SWB-1		Analog#03 MW-3D 5psi. ft..... MW-3	6.75'	Analog#04 MW-2D 10psi ft..... MW-3D		Analog#05 Mw-2 5psi.. ft..... MW-2D		MW-2
22-Apr-92	21:27:14	1.06	189.08	7.24	190.44	3.03	191.62	15.83	191.75	8.18	189.97	
22-Apr-92	21:42:14	1.06	189.08	7.24	190.44	3.03	191.62	15.82	191.74	8.17	189.96	
22-Apr-92	21:57:14	1.07	189.09	7.24	190.44	3.03	191.62	15.82	191.74	8.18	189.97	
22-Apr-92	22:12:14	1.06	189.08	7.24	190.44	3.04	191.63	15.83	191.75	8.18	189.97	
22-Apr-92	22:27:14	1.07	189.09	7.24	190.44	3.04	191.63	15.83	191.75	8.18	189.97	
22-Apr-92	22:42:14	1.06	189.08	7.24	190.44	3.04	191.63	15.83	191.75	8.18	189.97	
22-Apr-92	22:57:14	1.06	189.08	7.25	190.45	3.04	191.63	15.83	191.75	8.18	189.97	
22-Apr-92	23:12:14	1.06	189.08	7.24	190.44	3.04	191.63	15.83	191.75	8.18	189.97	
22-Apr-92	23:27:14	1.06	189.08	7.24	190.44	3.04	191.63	15.84	191.76	8.18	189.97	
22-Apr-92	23:42:14	1.07	189.09	7.23	190.43	3.04	191.63	15.83	191.75	8.17	189.96	
22-Apr-92	23:57:14	1.07	189.09	7.23	190.43	3.04	191.63	15.83	191.75	8.18	189.97	
23-Apr-92	00:12:14	1.06	189.08	7.23	190.43	3.03	191.62	15.83	191.75	8.18	189.97	
23-Apr-92	00:27:14	1.06	189.08	7.23	190.43	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	00:42:14	1.06	189.08	7.22	190.42	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	00:57:14	1.06	189.08	7.22	190.42	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	01:12:14	1.05	189.07	7.22	190.42	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	01:27:14	1.05	189.07	7.22	190.42	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	01:42:14	1.05	189.07	7.22	190.42	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	01:57:14	1.05	189.07	7.21	190.41	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	02:12:14	1.05	189.07	7.22	190.42	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	02:27:14	1.05	189.07	7.21	190.41	3.03	191.62	15.83	191.75	8.16	189.95	
23-Apr-92	02:42:14	1.04	189.06	7.22	190.42	3.03	191.62	15.83	191.75	8.17	189.96	
23-Apr-92	02:57:14	1.04	189.06	7.22	190.42	3.03	191.62	15.83	191.74	8.16	189.95	
23-Apr-92	03:12:14	1.04	189.06	7.21	190.41	3.02	191.61	15.83	191.74	8.16	189.95	
23-Apr-92	03:27:14	1.04	189.06	7.21	190.41	3.02	191.61	15.83	191.75	8.16	189.95	
23-Apr-92	03:42:14	1.04	189.06	7.21	190.41	3.02	191.61	15.82	191.74	8.16	189.95	
23-Apr-92	03:57:14	1.04	189.06	7.21	190.41	3.02	191.61	15.83	191.75	8.16	189.95	
23-Apr-92	04:12:14	1.04	189.06	7.21	190.41	3.02	191.61	15.83	191.74	8.16	189.95	
23-Apr-92	04:27:14	1.04	189.06	7.21	190.41	3.02	191.61	15.82	191.74	8.16	189.95	
23-Apr-92	04:42:14	1.04	189.06	7.21	190.41	3.02	191.61	15.82	191.74	8.16	189.95	
23-Apr-92	04:57:14	1.04	189.06	7.21	190.41	3.02	191.61	15.82	191.74	8.16	189.95	
23-Apr-92	05:12:14	1.04	189.06	7.21	190.41	3.02	191.61	15.82	191.74	8.15	189.94	
23-Apr-92	05:27:14	1.04	189.06	7.20	190.40	3.02	191.61	15.82	191.73	8.15	189.94	
23-Apr-92	05:42:14	1.04	189.06	7.20	190.40	3.02	191.61	15.82	191.74	8.15	189.94	
23-Apr-92	05:57:14	1.04	189.06	7.20	190.40	3.01	191.60	15.82	191.74	8.15	189.94	
23-Apr-92	06:12:14	1.03	189.05	7.20	190.40	3.02	191.61	15.82	191.74	8.15	189.94	
23-Apr-92	06:27:14	1.03	189.05	7.20	190.40	3.01	191.60	15.82	191.73	8.15	189.94	
23-Apr-92	06:42:14	1.03	189.05	7.20	190.40	3.01	191.60	15.81	191.73	8.15	189.94	
23-Apr-92	06:57:14	1.03	189.05	7.19	190.39	3.01	191.60	15.81	191.73	8.15	189.94	
23-Apr-92	07:12:14	1.03	189.05	7.19	190.39	3.01	191.60	15.81	191.73	8.14	189.93	

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ITT Storm Water
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ITT - Sealectro
Mamaroneck, New York
Ground Water Levels
April 23, 1992

Date	Time	Analog#01 river..... FT.....		Analog#02 MW-3 5psi.. FT.....		Analog#03 MW-3D 5psi. ft.....		Analog#04 MW-2D 10psi ft.....		Analog#05 Mw 2 5psi.. ft.....	
	MW-2		SWB-1		MW-3	6.75'	MW-3D		MW-2D		MW-2
23-Apr-92	07:27:14	1.03	189.05	7.19	190.39	3.01	191.60	15.81	191.73	8.14	189.93
23-Apr-92	07:42:14	1.03	189.05	7.21	190.41	3.01	191.60	15.81	191.73	8.14	189.93
23-Apr-92	07:57:14	1.03	189.05	7.19	190.39	3.01	191.60	15.81	191.73	8.14	189.93
23-Apr-92	08:12:14	1.03	189.05	7.19	190.39	3.01	191.60	15.81	191.73	8.15	189.94
23-Apr-92	08:27:14	1.03	189.05	7.20	190.40	3.01	191.60	15.81	191.73	8.15	189.94
23-Apr-92	08:42:14	1.03	189.05	7.19	190.39	3.01	191.60	15.81	191.73	8.15	189.94
23-Apr-92	08:57:14	1.02	189.04	7.19	190.39	3.00	191.59	15.80	191.72	8.14	189.93
23-Apr-92	09:12:14	1.02	189.04	7.19	190.39	2.99	191.58	15.80	191.72	8.14	189.93
23-Apr-92	09:27:14	1.01	189.03	7.19	190.39	2.99	191.58	15.80	191.72	8.14	189.93
23-Apr-92	09:42:14	1.01	189.03	7.18	190.38	2.99	191.58	15.80	191.72	8.14	189.93

APPENDIX I

GROUND WATER FLOW COLLECTION

ITT SEALECTRO
MAMARONECK, NEW YORK

GROUND WATER FLOW CALCULATIONS:

SHALLOW UNIT

K = Hydraulic Conductivity

K (max) = 2.1×10^{-3} cm/sec (6.0 ft/day)
(min) = 3.6×10^{-4} cm/sec (1.0 ft/day)

i = Hydraulic Gradient

i (max) = 0.006 ft/ft
(min) = 0.004 ft/ft

A = Cross-Sectional Area (Parallel to River)
280 ft * 10 ft = 2800 ft^2

n = Assumed Porosity = 0.4 (Fetter, 1980)

V = Ki/n

V(min) = $3.6 * 10^{-4}$ cm/sec * 0.004 ft/ft/0.4 = $3.6 * 10^{-6}$ cm/sec

$3.6 * 10^{-6}$ cm/sec * 86,400 sec/day * 1 ft/30.48 = $1.0 * 10^{-2}$ ft/day * 365 day/yr

= 3.7 ft/yr

V(max) = $2.1 * 10^{-3}$ cm/sec * 0.006 ft/ft/0.4 = $3.2 * 10^{-5}$ cm/sec

$3.2 * 10^{-5}$ cm * 86,400 sec/day * 1 ft/30.48 cm = 0.09 ft/day * 365 day/yr

= 33 ft/yr

Q = K * i - A

Q(min) = 1.0 ft/day * 0.004 ft/ft * 2,800 ft^2 = 11.2 ft^3/day * 7.48 gal/ft^3

= 84 gal/day

Q(min) = 6.0 ft/day * 0.006 ft/ft * 2,800 ft^2 = 100.8 ft^3/day x 7.48 gal/ft^3

= 7543 gal/day

DEEP UNIT

K = Hydraulic Conductivity

K (max) = 1.7×10^{-3} cm/sec (4.8 ft/day)
(min) = 1.0×10^{-4} cm/sec (.28 ft/day)

i = Hydraulic Gradient

i = 0.001 ft/ft

A = Cross-Sectional Area (Parallel to River)
280 ft * 19 ft = 5320 ft^2

n = Assumed Porosity = 0.3 (Fetter, 1980)

V = Ki/n

V(min) = $1.0 * 10^{-4}$ cm/sec * 0.001 ft/ft/0.3 = $3.3 * 10^{-7}$ cm/sec

$3.3 * 10^{-7}$ cm/sec * 86,400 sec/day * 1 ft/30.48 = $9.4 * 10^{-4}$ ft/day * 365 day/yr

= 0.34 ft/yr

V(max) = $1.7 * 10^{-3}$ cm/sec * 0.001 ft/ft/0.3 = $5.7 * 10^{-6}$ cm/sec

$5.7 \times 10^{-6} * 10^{-5}$ cm/sec * 86,400 sec/day * 1 ft/30.48 cm = 0.016 ft/day * 365 day/yr

= 5.8 ft/yr

Q = K * i - A

Q(min) = 0.28 ft/day * 0.001 ft/ft * 5,320 ft^2 = 1.5 ft^3/day * 7.48 gal/ft^3

= 11 gal/day

Q(max) = 4.8 ft/day * 0.001 ft/ft * 5,320 ft^2 = 25.5 ft^3/day x 7.48 gal/ft^3

= 191 gal/day

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