57 East Willow Street
Millburn, NJ 07041

973.564.6006 PHONE
973.564.6442 FAX

www.TRCsolutions.com

October 12, 2010

New Jersey Department of Environmental Protection
Division of Remediation Management and Response
Bureau of Operations, Maintenance and Monitoring
401 East State Street
P.O. Box 432
Trenton, New Jersey 08625-0432

Attn: Mr. Mark Souders, Case Manager

Re: *Remedial Action Progress Report*
Former Lockheed Electronics Company Site
Watchung, New Jersey
ISRA Case No. E90038
TRC Job No. 2542-116473.0000

Dear Mr. Souders:

Enclosed find one original and two copies of a Remedial Action Progress Report for the above referenced Site. The report covers remedial activities conducted between April 2009 and March 2010.

If you have any questions or need additional information, please call.

Very truly yours,

TRC ENVIRONMENTAL CORPORATION

Scott McCray
Associate Project Manager

Stephen E. Tappert
Senior Manager

cc: Borough of North Plainfield
Chuck Trione, Lockheed Martin

R\2010 RAPR.doc

## CERTIFICATION

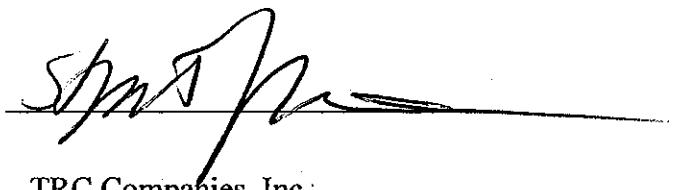
**The following certification shall be signed as follows:**

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

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

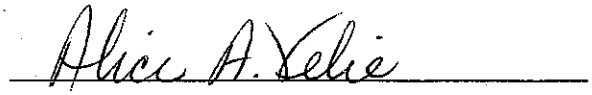
Type/Printed Name
Stephen E. Tappert

Title
Senior Manager

Signature 

Company TRC Companies, Inc.

Sworn to and subscribed before me on this
7th day of October 2010.



Notary [seal]

ALICE A. VELIE
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires June 28, 2014

**CASE NO. E90038**

# *REMEDIAL ACTION PROGRESS REPORT*
# FORMER LOCKHEED ELECTRONICS COMPANY
# WATCHUNG, NEW JERSEY

**TRC JOB NO. 2542-116473.0000**

prepared by:

TRC Environmental Corporation
57 East Willow Street
Millburn, New Jersey 07041

October 2010

## TABLE OF CONTENTS

## LIST OF FIGURES

## LIST OF TABLES

## LIST OF APPENDICES

**CASE NO. E90038**

***REMEDIAL ACTION PROGRESS REPORT***

**FORMER LOCKHEED ELECTRONICS COMPANY**
**WATCHUNG, NEW JERSEY**

## 1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this Remedial Action Progress Report (RAPR) to summarize remedial activities completed between April 2009 and March 2010 at the former Lockheed Electronics Company (LEC) property (currently the Watchung Square Mall) located on Route 22 in the Boroughs of Watchung and North Plainfield, Somerset County, New Jersey. These remedial activities were completed in compliance with the New Jersey Department of Environmental Protection's (NJDEP's) *Technical Requirements for Site Remediation* (TRSR) (NJAC 7:26E), NJDEP's August 2005 *Field Sampling Procedures Manual* (FSPM).

This report discusses the sampling methods and results for the remedial program completed during the above-referenced reporting period. Background site information is summarized in Section 2.0. Section 3.0 presents an overview of the field program completed. Section 4.0 presents the results of the remedial activities and Section 5.0 presents conclusions and recommendations.

## 2.0 BACKGROUND INFORMATION

### 2.1 Site Location and Description

The site is an approximately 80-acre parcel of land located on the north side of US Route 22 in the boroughs of Watchung and North Plainfield, Somerset County, New Jersey. Following cessation of activities at the site by LEC, it was re-developed as the Watchung Square Mall. Figure 1 provides a map showing the location of the site on a United States Geologic Survey (USGS) 7.5-minute series topographic map (Chatham, NJ quadrangle), and depicts the site's location, local topography, and surface drainage patterns.

The site is located in a mixed residential and commercial area. Route 22 borders the site to the south, and is predominately commercial with residential properties located on side streets and mapped wetlands in drainage areas. An apartment complex (Crystal Ridge Club) borders the site to the west. Forested areas and residences border the site to the north, and commercial properties border the site to the east.

### 2.2 Physical Setting

#### 2.2.1 Topography, Surface Water, and Wetlands

As shown on Figure 1, the site ranges in elevation from approximately 140 to 320 feet above mean sea level, and slopes from the First Watchung Mountain, located to the northwest of the site, to Route 22, located southeast of the site. Most of the developed area of the site is less than 200 ft above sea level.

Figure 2 provides a map showing the site and the associated network of monitoring wells located both onsite and to the south and east of the site. As shown on Figure 2, the closest surface water body is Crab Brook. North of US Route 22 (in the vicinity of the site), Crab Brook is an intermittent stream that carries much of the stormwater drainage from the site and adjacent parcels. Crab Brook is diverted under Route 22 near the site's southwestern corner. South of Route 22, the brook flows generally west through a wooded buffer zone between the highway and residential neighborhoods. Crab Brook discharges to Stony Brook approximately 6,000 feet southwest of the site. Stony Brook discharges to Green Brook which ultimately discharges to the Raritan River.

Within 1 mile of the site, wetlands areas have been mapped by the NJDEP in locations immediately north of the site and south of the site along US Route 22.

#### 2.2.2 Geology

The native overburden at the site is generally comprised of a clay-silt layer, underlain by a sandy outwash deposit, over a thin layer of glacial till. In the vicinity of the site, the thickness of the overburden decreases towards the south-southwest but increases south of Crab Brook. The overburden is thinnest at well cluster MW-546 (3 feet) and generally increases south of Route 22 with the greatest thickness of 47 feet observed at well cluster MW-542. Construction of the original buildings and subsequent remedial activities introduced construction fill over much of the site. More recent earthmoving activities conducted during construction of the mall resulted in large cuts (northern portion of the site) and fills (southern portion of the site) to level the area for

buildings and parking lots; in some areas this activity increased overburden thickness by as much as twenty feet.

Below the overburden deposits is the Passaic Formation, a reddish-brown shale and siltstone of Jurassic age. The upper surface of the bedrock is generally weathered and soft, and becomes more competent with depth. Bedrock surface topography generally slopes to the southeast parallel to the First Watchung Mountain. The highest bedrock elevation is approximately 166 feet above sea level at well cluster MW-509 and the lowest is approximately 53 feet above sea level at wells PZ-524 and MW-542.

### 2.2.3 Hydrogeology

At the site itself, ground water is found only within the bedrock; further downgradient, the shallow zone includes thin layers of saturated overburden.

Prior to July 2003, ground water in the vicinity of the site flowed under natural conditions. Under natural conditions, ground water flow and contaminant migration within the bedrock aquifer were influenced by both bedrock structure and local ground water discharge areas, particularly Crab Brook. Under natural conditions, the ground water in the bedrock at the site flowed along bedrock strike (to the southwest), and then generally trended in a more southerly direction toward Crab Brook and beyond. Under these conditions, shallow ground water exhibited an upward vertical gradient near Crab Brook, and provided base flow (discharged) to Crab Brook. Vertical gradients elsewhere were (and remain) generally downward.

On July 17, 2003, a Ground Water Extraction System (GWES) consisting of an extraction well (RW-1) and associated ground water treatment facility was activated to remediate the ground water contaminant plume and intercept ground water base flow to Crab Brook. Since that time, ground water levels, gradients, and flow patterns have been altered, as the almost continuous pumping has drawn ground water from the vicinity of the site toward RW-1, and the base flow to Crab Brook originating from the vicinity of the site has been reduced.

## 2.3 Site Ownership History and Facility Operations

The site was originally developed in 1953 by Stavid Engineering. Lockheed Corporation acquired Stavid Engineering in 1959 and created Lockheed Electronics Corporation, which was subsequently operated by Sanders, A Lockheed Martin Company (Sanders). Additional land acquisitions resulted in the current site boundaries. The site was used to manufacture, assemble, and test electronic components. Trichloroethene (TCE) was used in Building 7 as a solvent to clean circuit boards. Site operations ceased in 1989.

## 2.4 Environmental Investigation History

The cessation of site activities in 1989 triggered a site investigation under the New Jersey Environmental Cleanup Responsibility Act (ECRA) (superseded by the Industrial Site Recovery Act [ISRA]). The initial investigations identified several areas of concern (AOCs) and included collection of soil, sediment, ground water, and surface water samples. Investigation and remedial action results have been documented in a series of reports submitted to the NJDEP since 1991. Soil AOCs contained volatile organic compounds (VOCs), primarily TCE, as well as fuel oil, and were addressed either through excavation and off-site disposal or soil vapor extraction. Site-wide soil remediation has been completed to the satisfaction of the NJDEP.

Early investigation activities identified a ground water plume containing TCE at the site. An extensive monitoring well network has been installed to delineate and monitor the plume. There are currently more than 40 active monitoring wells and piezometers associated with this project in the Boroughs of Watchung and North Plainfield, all of which are installed as either well couplets or triplets to evaluate the vertical distribution of contaminants. Ground water monitoring activities are ongoing in accordance with the site's NJDEP-approved monitoring schedule, as presented in Table 1.

Historic surface water sampling additionally identified that ground water from the ground water plume provided base flow to Crab Brook, and historically resulted in measurable impact to surface water quality between North Avenue (Norwood Avenue) and Watchung Avenue. Four surface water locations are sampled semiannually to monitor surface water quality in Crab Brook, in accordance with the site's NJDEP-approved monitoring schedule (Table 1).

As noted above, to remediate the ground water plume and intercept ground water base flow to Crab Brook, the site GWES was activated on July 17, 2003. Ground water is pumped from extraction well RW-1, located on North Drive in North Plainfield, at an approximate rate of 120 gallons per minute (gpm). In addition, an interceptor trench located on New Jersey Department of Transportation (NJDOT)-owned land on the northeast corner of Route 22 and North Drive was installed during system installation activities to collect shallow ground water. However, the continuous pumping of ground water from extraction well RW-1 has resulted in a lowering of the shallow ground water table below the invert of the interceptor trench, and consequently the interceptor trench is no longer active.

Extracted ground water is treated by granular activated carbon in a treatment plant located on the NJDOT-owned land at the corner of North Drive and Route 22, and discharged to Crab Brook in accordance with New Jersey Pollution Discharge Elimination System (NJPDES) permit No. NJG0105899. The GWES has worked almost continuously from start-up and has functioned as designed, providing control of the bedrock ground water plume and intercepting ground water base flow prior to its reaching Crab Brook.

## 2.5 Well Search

As part of the site's most recent ground water Classification Exception Area (CEA) biennial certification, TRC completed a NJDEP Bureau of Water Allocation 1-mile radius well records search and a computerized 5-mile radius search of water allocation permitted wells. The recent well search results were reviewed by TRC in order to identify all potentially active wells within a 1-mile radius of the site. The well records generated during this search show that a total of 82 wells are located within one mile of the site as follows: one domestic well, two industrial wells, and 79 monitoring wells. The domestic well and one of the industrial wells identified in the well records search are located either sidegradient or upgradient of the site's TCE plume, and are not within the plume area. The second industrial well was located on the Crystal Ridge Club property prior to the construction of this apartment complex, and was likely abandoned or lost during the redevelopment of the property.

## 2.6 Baseline Ecological Evaluation

A Baseline Ecological Evaluation (BEE) was conducted at the site during February 1999 by Environmental Management Group, Inc. and Sevee and Maher Engineers, Inc. The BEE concluded that there was no measurable acute effect on aquatic species in Crab Brook from the

inflow of the former LEC site plume containing TCE. The NJDEP approved the BEE in the August 9, 1999 letter concluding that no further ecological evaluation was required with regard to Crab Brook.

## 2.7 Area of Concern Summary

As documented in the NJDEP's July 22, 1998 letter and other correspondence, all soil AOCs have been addressed to the satisfaction of the NJDEP. Ground water and the surface water of Crab Brook are the only AOCs related to the site.

## 2.8 Applicable Remediation Criteria and Standards

The delineation of ground water contaminants is based on a comparison of the results with the NJDEP Ground Water Quality Standards (GWQS) (NJAC 7:9C).

Both Stony Brook and Green Brook are listed in N.J.A.C. 7:9B-1.15(f) and assigned stream classification FW2-NT for purposes of defining the applicable NJDEP Surface Water Quality Criteria (SWQC). Crab Brook, an unlisted tributary of these surface water bodies, also is classified as FW2-NT by extension. Therefore, the delineation of surface water contaminants is based on a comparison of the results with the NJDEP SWQC for streams classified as FW2-NT (N.J.A.C. 7:9B-1.14(c)).

## 2.9 Contact Information

The following is a list of the applicable contact information. Note that TRC is the lead responsible party pursuant to a Remediation Agreement executed in 2001.

| | **Mailing Address** | **Representative** |
|---|---|---|
| **Lead Responsible Party/ Consultant**<br>TRC Environmental Corp. | 57 East Willow Street<br>Millburn, NJ 07041 | Stephen E. Tappert<br>973.564.6006 x 240<br>Scott McCray x 287 |
| **Current Site Owner/Operator**<br>Watchung Square Assoc., LLC | 641 Shunpike Road<br>Chatham, NJ 07928 | Al Tafro<br>973.966.2800 |
| **Former Site Owner**<br>Lockheed Electronics Corp. | 6801 Rockledge Drive<br>MP CCT 246<br>Bethesda, MD 20817 | Chuck Trione<br>(301) 548-2223 |

## 3.0 TECHNICAL OVERVIEW

The last progress report, submitted in August 2009, presented data collected from September 2007 through March 2009. Two semi-annual sampling events have occurred since the last report submittal (September 2009 and March 2010). The approved sampling schedule is provided in Table 1. Section 4.1.3 of this report presents the results of the semi-annual ground water sampling events conducted in September 2009 through March 2010. Results from the stream sampling events are presented in Section 4.2.2. Section 4.3 contains monthly system performance results and provides an overview of the GWES.

### 3.1 Remediation Objectives

The objectives of the activities conducted at this site are to remediate contaminants of concern to the applicable remediation standards, and to obtain No Further Action determination (or functional equivalent) from the NJDEP for ground water and surface water.

### 3.2 Sampling Procedures

The remediation activities were performed in accordance with the NJDEP's TRSR and FSPM. The September 2009 and March 2010 ground water samples were submitted to Accutest Laboratories, Inc. of Dayton, New Jersey (Accutest), a New Jersey-certified laboratory.

### 3.3 Reliability of the Laboratory Analytical Data

Based on a review of the laboratory reports, TRC did not further qualify or reject any data points. Therefore, these data are considered to be valid and useful for the intended purposes. All method specified calibrations and quality control performance criteria were met for this job, except as noted in the conformance/non-conformance summaries provided in the laboratory deliverable packages.

### 3.4 Factors Influencing Data

It should be noted that the amount of precipitation (rain and snow) in the vicinity of the site in February and March 2010 was far greater than is typical for these months, and it is therefore possible that ground water elevations and/or contaminant concentrations may have been impacted by this abnormal climatic condition. This qualification is noted where discussions of contaminant concentrations has been presented. Excluding this exception, there were no significant events or seasonal variations that are known to have affected the sampling procedures or the results of the ground water or surface water sampling presented in this report.

## 4.0 REMEDIAL ACTION PROGRESS REPORT

Previous ground water and surface water investigations have delineated a ground water plume comprised primarily of TCE in the local bedrock and overburden aquifer system. TCE has been reported at concentrations exceeding the GWQS of 1 microgram per liter (µg/L) in ground water beneath the site, extending to the southwest approximately 7,000 feet. The site GWES was activated on July 17, 2003 to remediate the TCE plume and intercept ground water prior to its entry into Crab Brook. Ground water is pumped from extraction well RW-1, located on North Drive in North Plainfield, at an approximate rate of 120 gpm. Effluent sampling (per NJPDES permit No. NJG0105899) and monthly performance sampling is conducted to monitor the effectiveness of the recovery system. Ground water and surface water sampling is conducted on a semi-annual basis to monitor contaminant migration.

The following subsections describe remedial activities and evaluations completed in association with the ground water monitoring, surface water monitoring, and GWES performance monitoring activities completed from September 2009 through March 2010.

### 4.1 Ground Water Monitoring and Sampling Activities

Ground water monitoring and sampling events were conducted in September 2009 and March 2010 in accordance with the sampling schedule presented in Table 1.

As presented in TRC's August 2009 RAPR, ground water beneath the site has been divided into three vertical zones to facilitate hydrogeologic analysis: the shallow zone (overburden and shallow bedrock ground water from the ground water table to approximately 50 feet above mean sea level [ft amsl]); the intermediate zone (bedrock ground water from approximately 50 ft amsl to approximately 50 feet below mean sea level [ft bmsl]); and the deep zone (bedrock ground water below 50 ft bmsl). Historically, monitoring well clusters (couplets or triplets) have been installed to monitor ground water quality in these three vertical zones, with a naming convention that was intended to convey information about the depth of the individual wells within the well cluster. At monitoring well couplets, the deeper monitoring well designated with an "A" at the end of its name, and shallower monitoring well was designated with a "B". Similarly, at monitoring well triplets, the deepest monitoring well was designated with an "A", the intermediate-depth monitoring well was designated with a "B", and the shallowest monitoring well was designated with a "C". However, this naming convention has become cumbersome in practice, in that "A" designated wells may be present in either the deep vertical zone or the intermediate vertical zone, and "B" designated wells may be present in either the shallow or the intermediate vertical zone, depending on whether the monitoring well cluster represented is a well couplet or a well triplet. Therefore, to minimize confusion, this report has presented all monitoring wells in the shallow zone as defined above with an "S" designation, all monitoring wells in the intermediate depth zone with an "I" designation, and all monitoring wells in the deep zone with a "D" designation (replacing the previous "A", "B", and "C" designations). Table 2 presents a summary of current and historic well designations and well construction information relative to the three vertical zones used for hydrogeologic analysis.

The investigative findings and laboratory analytical results for each vertical zone are presented in the sections below.

4.1.1 Water-Level Measurements

Water level measurements were collected on September 8, 2009 and March 9, 2010 at selected monitoring wells associated with the site. Table 3 provides depth to water (DTW) measurements and water level elevations for these sampling events.

The water level elevations were used to prepare ground water contour maps. Ground water flow directions for the shallow zone, the intermediate zone, and the deep zone are depicted on Figures 3 through 8, using the hydrostratigraphic classification presented in Table 2. Since the open borehole interval of extraction well RW-1 bridges both the shallow and intermediate zones, the ground water elevation for extraction well RW-1 was included on both the shallow and intermediate zone contour maps (with no correction for well inefficiency). Figures 3 through 8 indicate that ground water in the bedrock enters the former LEC site from the east, flows across the site to the southwest, and then trends in a more southerly direction toward Crab Brook and beyond.

Based on current ground water gauging data and historic pump test results, ground water flow in the shallow and intermediate zones has been altered significantly since the continuous pumping at extraction well RW-1 began in July 2003. Based on RW-1 pumping test data, drawdown of the ground water potentiometric surface resulting from the pumping of RW-1 was measured over an area measuring approximately 2,700 feet (along bedrock strike) by 1,300 feet in the shallow zone, and 3,300 (along bedrock strike) by 1,600 feet in the intermediate zone [1]. This pumping creates a capture zone in the shallow and intermediate ground water zones, reducing local base flow to Crab Brook, and controlling the downgradient movement of the TCE ground water plume.

The effect of pumping, while less pronounced, is also present in the deep zone. While the area of apparent drawdown in the deep zone was not mapped during the 2000 pumping tests (due to an insufficient number of monitoring points), apparent drawdown was measured in both of the deep zone monitoring wells monitored (MW-546D and MW-547D) (0.33 ft and 0.92 ft, respectively). Based on these findings, it appears that the continuous pumping of ground water from RW-1 is impacting the deep zone; however the extent of the GWES influence on the deep zone is not known.

Contour Map Reporting Forms are presented in Appendix A.

Ground water elevation measurements presented in Table 3 and on Figures 3 through 8 are consistent with the last several years of ground water elevation data. As documented in TRC RAPRs submitted to the NJDEP since 2003, the ground water flow regime has not changed over the last several years of GWES operation.

4.1.2 Ground Water Sample Collection

Analytical results for the ground water samples collected during the September 2009 and March 2010 sampling events are provided in Table 4 and on Figure 9, and a summary of historical results for contaminants of concern is provided in Table 5 and Appendix B. Concentrations that exceed the NJDEP's GWQS are highlighted in Table 4. The complete ground water laboratory

[1] As presented in the TRC June 2004 Remedial Investigation Report Addendum.

data packages and the electronic data deliverables are included under separate cover. Sampling results for the monitoring events are discussed below in Section 4.1.3.

During the semi-annual ground water sampling events (September 2009 and March 2010), TRC collected ground water samples at each well location using passive diffusion bags (PDBs), in accordance with the FSPM. The PDBs were retrieved from each well using a dedicated retrieval line, and the ground water sample transferred to the appropriate laboratory-supplied bottleware for laboratory analysis of VOCs using EPA Method 624. Following sampling, new PDBs that had been pre-filled with laboratory-grade de-ionized water were attached to the retrieval tethers, and the tether was re-set in the monitoring well at the appropriate sampling depths, in preparation for the next semi-annual sampling event.

### 4.1.3 Summary of Ground Water Results

*Semi-Annual Ground Water Sampling Events*

The highest TCE concentrations reported during the two semi-annual ground water sampling events were from on-site wells MW-549S and MW-549I, located in the former source area. TCE concentrations in samples collected from MW-549S ranged from 385 to 643 µg/L. The concentration of TCE in samples collected from MW-549I ranged from 781 to 806 µg/L. Only four additional wells (MW-502S, MW-532D, MW-546D, and MW-550I) reported TCE concentrations over 10 µg/L. Based upon ground water flow maps and drawdown data collected during the pumping test conducted in 2000, all these wells are within the capture zone of extraction well RW-1.

Downgradient well clusters MW-544 and MW-545 reported less than 1 µg/L or non-detectable concentrations of TCE.

Other ground water contaminants, including chloroform, tetrachloroethene (PCE), vinyl chloride, and 1,1-dichloroethane (1,1-DCA), have been detected in sampled wells at very low concentrations. The most commonly identified compound is chloroform. PCE was detected at concentrations ranging up to 4.3 µg/L, exceeding the GWQS of 1 µg/L in several wells. Vinyl chloride was reported in one well at a concentration of 5.7 µg/L, exceeding the GWQS of 1 µg/L. No other compounds exceeded the applicable GWQS in any wells.

*Comparison of Historical and Recent Ground Water Sampling Results*

Historical TCE results for the sampled wells are presented in Table 5, and Figure 9 illustrates TCE and other detected VOC concentrations from the sampled wells since the GWES became operational. Historical TCE concentrations versus time plots are presented in Appendix B for selected wells. The plume and compliance wells were sampled during both the September 2009 and March 2010 events. The background wells were only sampled during the March 2010 event. The plume wells are located near the former source area or directly downgradient of it; they are also located upgradient and within the capture zone of extraction well RW-1. As shown in Appendix B and Table 5, and on Figure 9, general decreasing trends since pumping began in July 2003 were observed in the plume and compliance monitoring wells.

Table 6 presents a comparison between TCE concentrations in monitoring well samples collected in November 1999 (prior to system activation) and in September 2009[2]. As shown on Table 6, 16 of the 21 wells considered have either reported a greater than 90% decrease in TCE contaminant concentrations or have reported TCE concentrations below the GWQS since pumping was initiated. In an additional three wells, TCE concentrations decreased more than 50% since GWES activation. Only one well (PZ-522D) reported an increase in concentration (0.9 µg/L in 1999, 2.2 µg/L in 2009). The 2009 results for source wells MW-549S (643 µg/L) and MW-549I (781 µg/L) compare well with 1999 results for predecessor wells MW-548C and MW-548B, both of which reported 5,100 µg/L of TCE. (The MW-548 cluster was installed in the same area as the MW-549 wells, but was abandoned to facilitate site development.)

As shown on Table 6 and in Appendix B, particularly significant reductions in ground water concentrations have been noted in wells MW-502S, MW-506I, MW-507I, and MW-508S, where TCE concentrations have decreased by approximately two orders of magnitude since 1999. In addition, the TCE concentration in well MW-550I has decreased from greater than 800 µg/L to levels less than 100 µg/L. These wells are within the area of pumping influence created by extraction well RW-1, and provide a good indication of the water quality trend in the area of the plume directly impacted by the pumping program.

It is also significant to note that the trend in the TCE analytical results for well MW-546D. Analytical results from the March 2009 sampling event (presented in the August 2009 RAPR), the September 2009 sampling event, and the March 2010 sampling event for well MW-546D reported the three lowest TCE concentrations detected in this well to date. Based upon pumping test data[3], this well is located within the zone of influence of the recovery well. The March 2010 analytical result represents a 91% reduction in the TCE concentration compared to the March 2003 sample result (prior to GWES activation). Although the recent result may have been biased low due to heavy precipitation in February and March 2010, it is consistent with the analytical results from the previous two sampling events. As noted in the August 2009 RAPR, continued ground water monitoring will be required to determine whether the recently-noted contaminant reduction at this well location will be sustained.

## 4.2 Surface Water Monitoring and Sampling Activities

During the September 2009 and March 2010 sampling events, surface water samples were collected from four locations: SW-1, SW-2, SW-3 and SW-4. The surface water sample locations are presented on Figure 2.

### 4.2.1 Surface Water Sample Collection

During the September 2009 and March 2010 sampling events, stream flow measurements were collected at the sample locations to estimate stream discharge volume. Field measurements and calculations for stream flow are presented in Appendix C.

[2] March 2010 was excluded from analysis due to high levels of precipitation and recharge in February-March 2010, potentially biasing analytical results low.

[3] Presented in TRC's June 2004 Remedial Investigation Report Addendum.

The surface water samples were analyzed for VOCs using EPA Method 624. The surface water analytical results are presented in Table 7 and on Figure 10. The complete surface water laboratory data packages and the electronic data deliverables are included under separate cover.

#### 4.2.2 Summary of Surface Water Results

Historical surface water TCE analytical results are presented in Table 8, in Appendix D, and on Figure 10. The concentrations of TCE at surface water samples in September 2009 and March 2010 ranged from non-detectible concentrations (ND) to 0.68 µg/L (estimated) in the surface water samples collected. All of these results are below the FW2-NT SWQC for TCE (1.09 µg/L). Additionally, toluene (a compound not related to the former LEC site) was detected in a sample from location SW-3 during the March 2010 sampling event at a concentration of 2.1 µg/L, well below the FW2-NT SWQC for toluene (1,300 µg/L).

## 4.3 GWES Performance Monitoring and Sampling

Performance sampling results are presented in Table 9. Influent TCE concentrations for this reporting period ranged from 1.4 µg/L (September 2009) to an estimated concentration of 0.54 µg/L (December 2009). Effluent TCE concentrations during this monitoring period were well below the NJPDES permit effluent limit for TCE of 5.4 µg/L.

Due to a scheduling oversight, the whole effluent toxicity (WET) sample for the fourth quarter of 2009 was not collected, resulting in the issuance of a Notice of Violation (NOV) in June 2010. Increased sampling frequency for the WET test was implemented in July 2010 as required by the NOV.

## 4.4 Vapor Intrusion Investigation

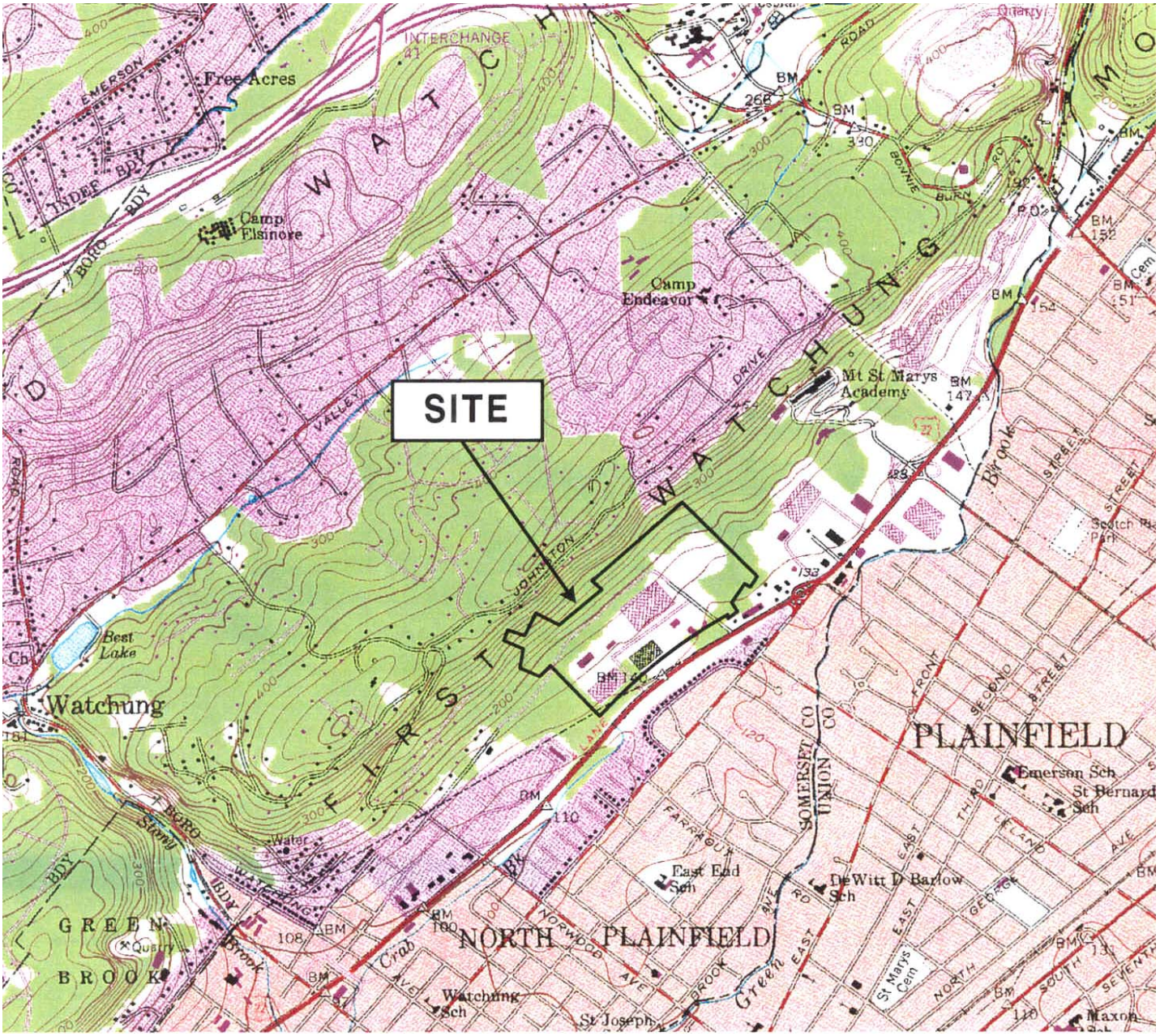
A Vapor Intrusion Investigation Workplan was submitted to the NJDEP in August 2009, which proposed collecting vapor intrusion samples from the Crystal Ridge Apartments and the Wal-Mart store in the Watchung Square shopping center. After meeting with the NJDEP and discussing the issue, a revised workplan was submitted in August 2010. Access negotiations with the property owners are ongoing.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Based upon the information provided in this RAPR, the GWES at the former LEC site continues to function as designed. The discharge of contaminated ground water to Crab Brook (as base flow) has been mitigated and stream samples generally meet the SWQS, the ground water plume is being captured by the treatment system, and concentrations of contaminants in key wells continue to decline. The treatment plant is operating efficiently and no discharge permit limits have been exceeded.

The next RAPR for the site is scheduled to be submitted in May 2011, and will cover monitoring and remedial activities through March 2011, including the anticipated vapor intrusion sampling. An implementation schedule for the proposed activities associated with the RAPR is included as Table 10.

# FIGURES




SOURCE: U.S.G.S. CHATHAM, NJ
7.5 MINUTE QUADRANGLE

0 1000 2000
SCALE IN FEET

N

TRC ENVIRONMENTAL CORP.
57 East Willow Street
Millburn, New Jersey 07041

SITE LOCATION MAP

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

| | |
|---|---|
| PREPARED BY: DD/LB | DATE: APRIL 2007 |
| JOB NO.: 2542 | FIGURE: 1 |

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542 – SITE LOCATION MAP.DWG, DATE: 10/01/2010 07:24:32AM


LEGEND

- ● ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION

0 1000 ft.
APPROXIMATE SCALE

**TRC ENVIRONMENTAL CORP.**
57 East Willow Street
Millburn, New Jersey 07041

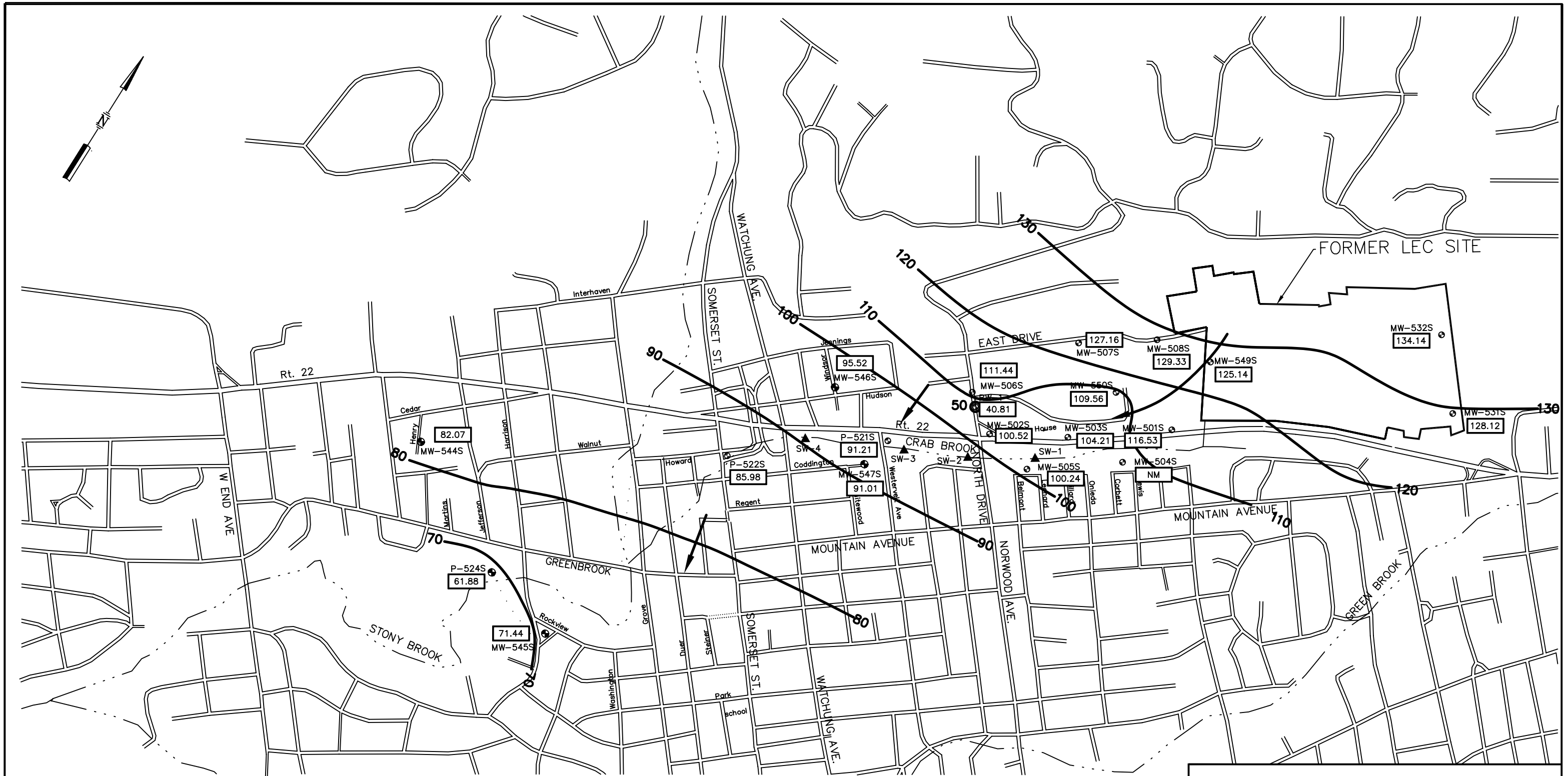
SITE PLAN

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE : 2 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542-FIGURE 2.DWG, DATE: 10/01/2010 07:25:27AM




LEGEND

- ● ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION
- 61.88 GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT MSL)
- NM = NOT MEASURED
- 130 GROUND WATER CONTOUR IN FT MSL
- ← GROUND WATER FLOW DIRECTION

0 1000 ft.
APPROXIMATE SCALE


**TRC ENVIRONMENTAL CORP.**
57 East Willow Street
Millburn, New Jersey 07041

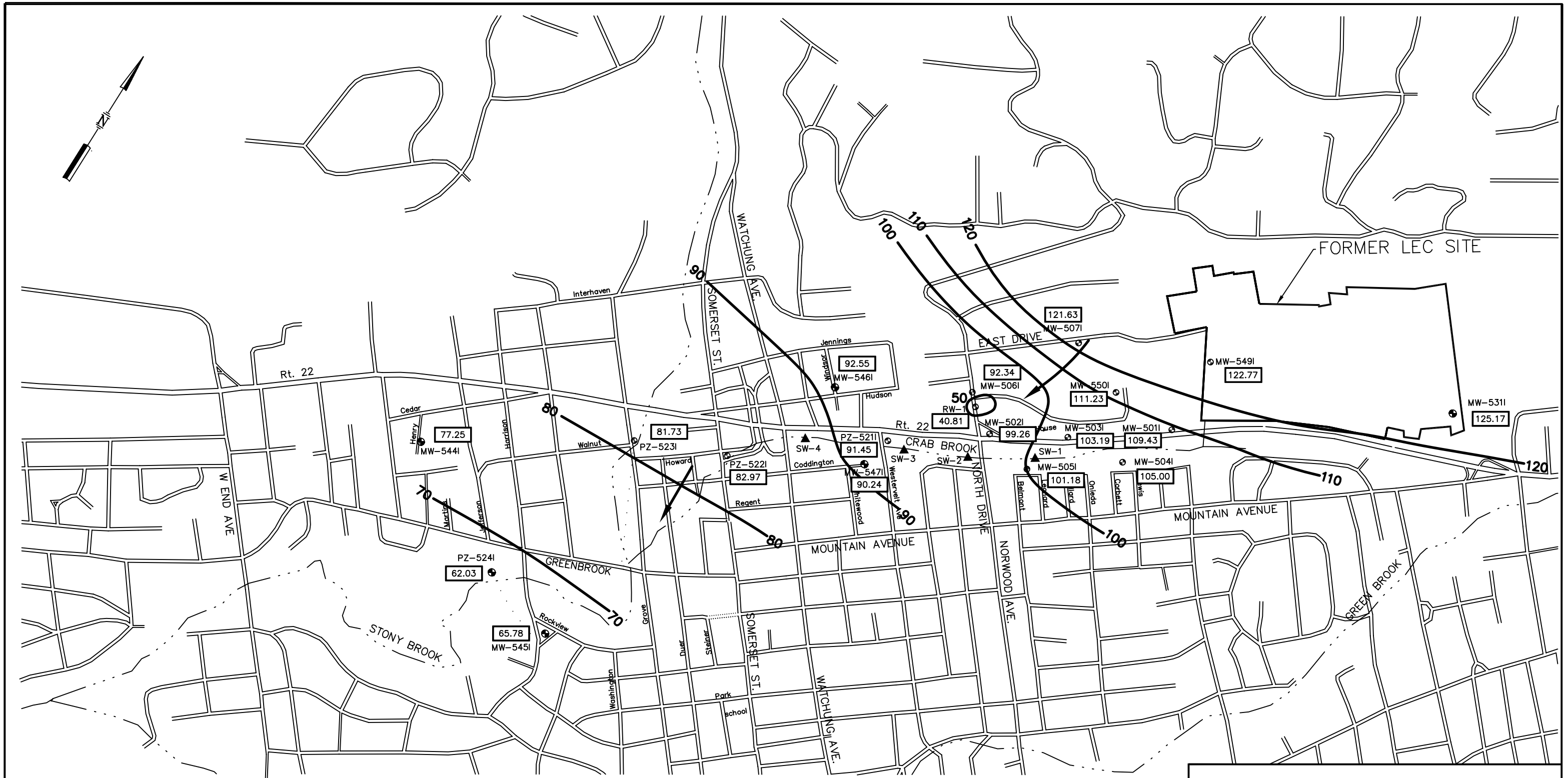

SHALLOW ZONE GROUND WATER CONTOUR MAP
SEPTEMBER 8, 2009

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE: 3 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542-FIGURE 3.DWG, DATE: 10/01/2010 07:26:11AM




LEGEND

- ● ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION
- 62.03 GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT MSL)
- NM = NOT MEASURED
- 130 GROUND WATER CONTOUR IN FT MSL
- ← GROUND WATER FLOW DIRECTION

**TRC ENVIRONMENTAL CORP.**
57 East Willow Street
Millburn, New Jersey 07041

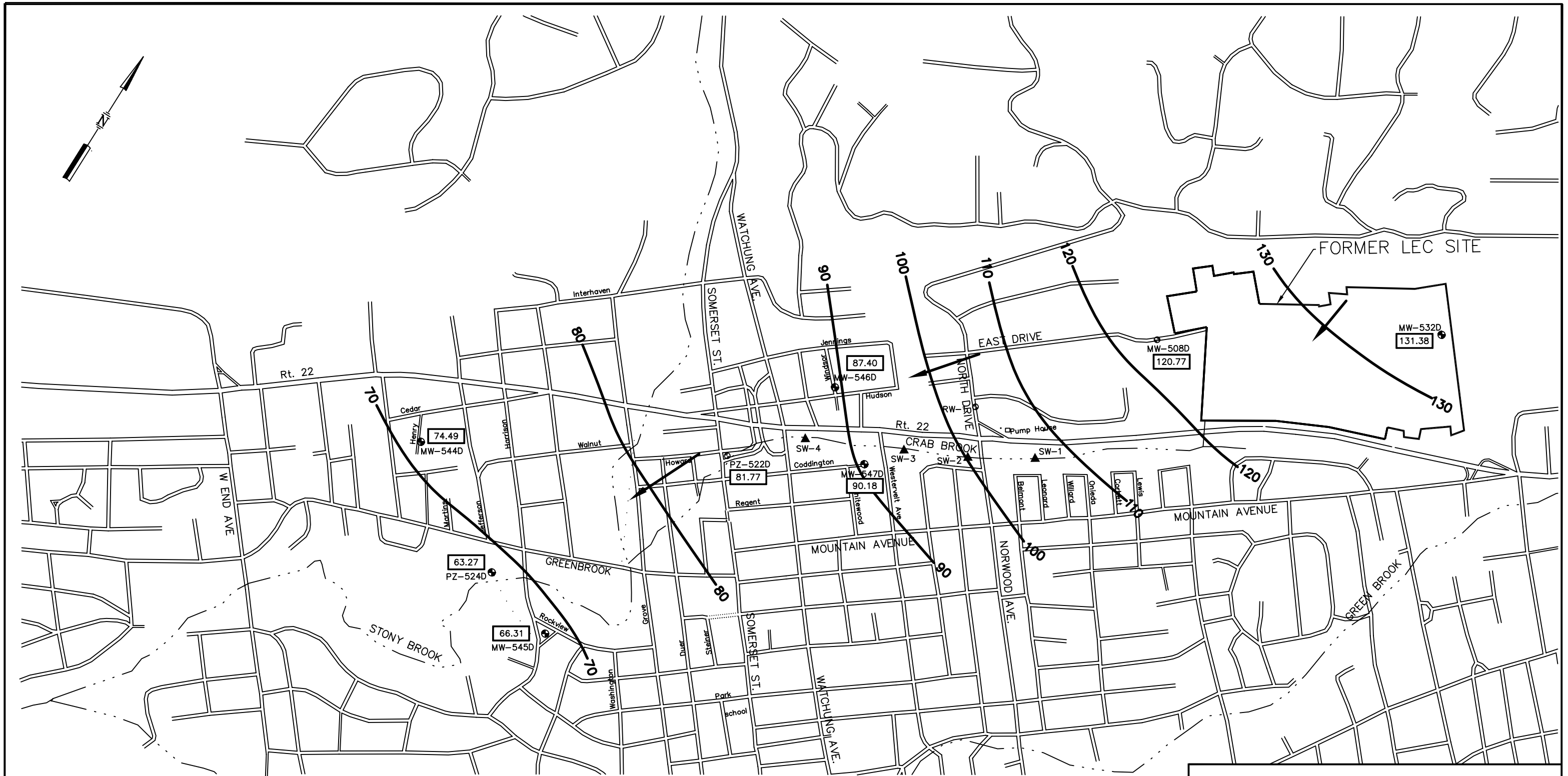
INTERMEDIATE ZONE GROUND WATER CONTOUR MAP
SEPTEMBER 8, 2009

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE : 4 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542-FIGURE 4.DWG, DATE: 10/01/2010 07:26:52AM




LEGEND

- ● ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION
- [66.31] GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT MSL)
- NM = NOT MEASURED
- 130 GROUND WATER CONTOUR IN FT MSL
- GROUND WATER FLOW DIRECTION

0 1000 ft.
APPROXIMATE SCALE

**TRC ENVIRONMENTAL CORP.**
57 East Willow Street
Millburn, New Jersey 07041

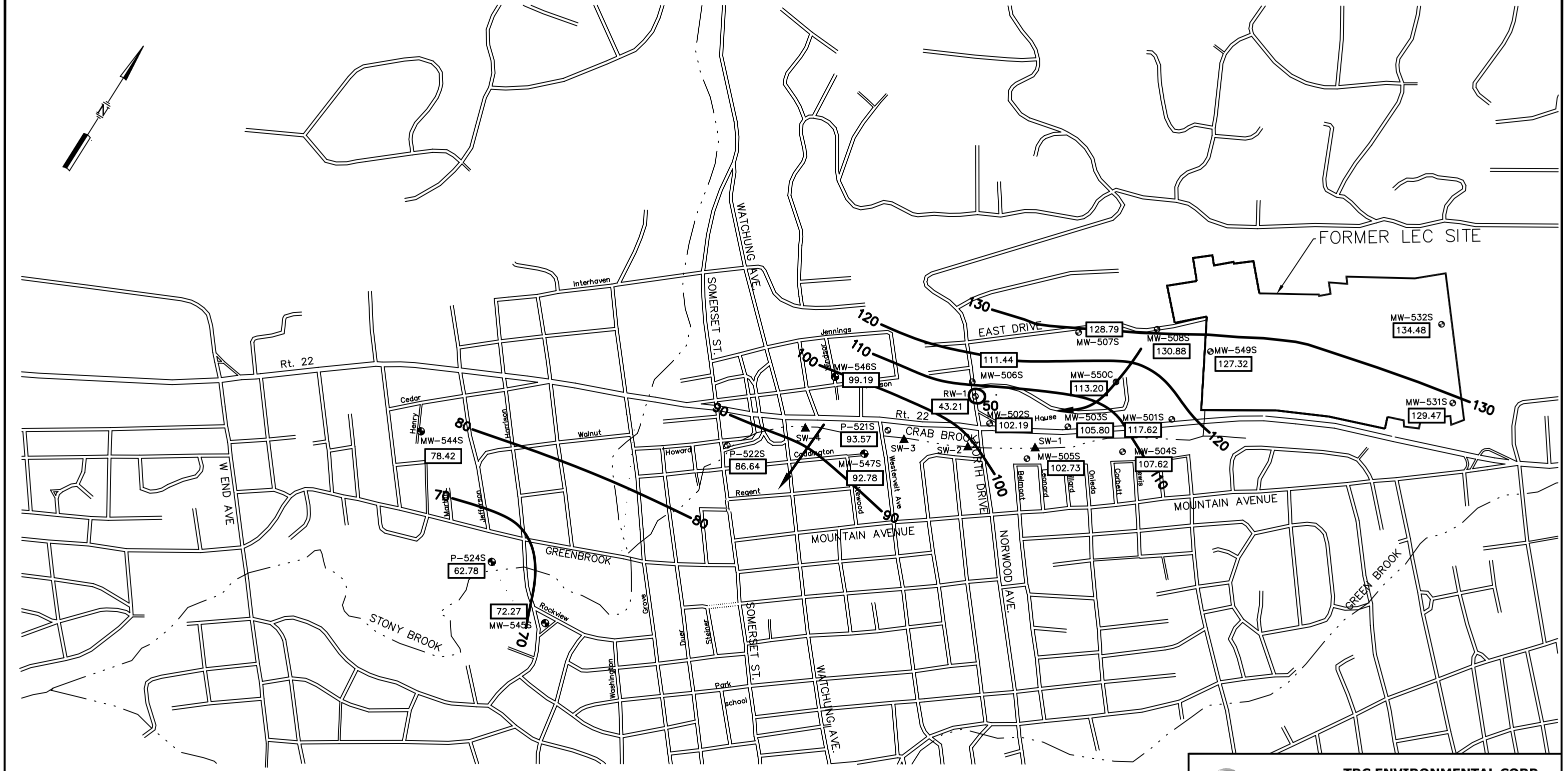
DEEP ZONE GROUND WATER CONTOUR MAP
SEPTEMBER 8, 2009

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE : 5 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542-FIGURE 5.DWG, DATE: 10/01/2010 07:27:40AM




LEGEND

- ● ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW–1 SURFACE WATER MONITORING LOCATION
- 61.88 GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT MSL)
- NM = NOT MEASURED
- 130 GROUND WATER CONTOUR IN FT MSL
- ← GROUND WATER FLOW DIRECTION

0 1000 ft.
APPROXIMATE SCALE

**TRC ENVIRONMENTAL CORP.**
57 East Willow Street
Millburn, New Jersey 07041

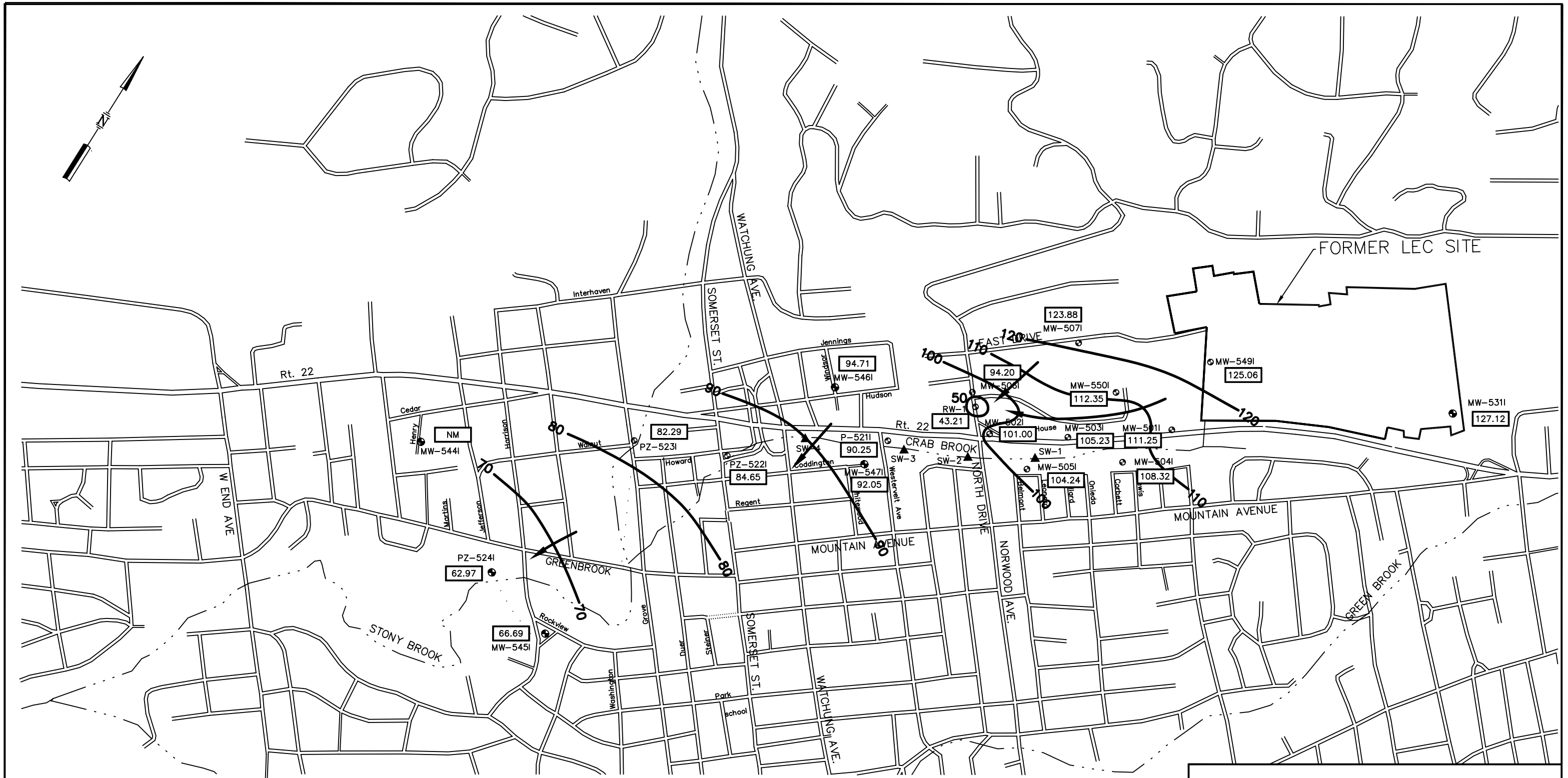
SHALLOW ZONE GROUND WATER CONTOUR MAP
MARCH 9, 2010

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE: 6 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542–FIGURE 6.DWG, DATE: 10/01/2010 07:28:15AM




LEGEND

- ● ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION
- 62.03 GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT MSL)
- NM = NOT MEASURED
- 130 GROUND WATER CONTOUR IN FT MSL
- GROUND WATER FLOW DIRECTION

0 1000 ft.
APPROXIMATE SCALE

**TRC ENVIRONMENTAL CORP.**
57 East Willow Street
Millburn, New Jersey 07041

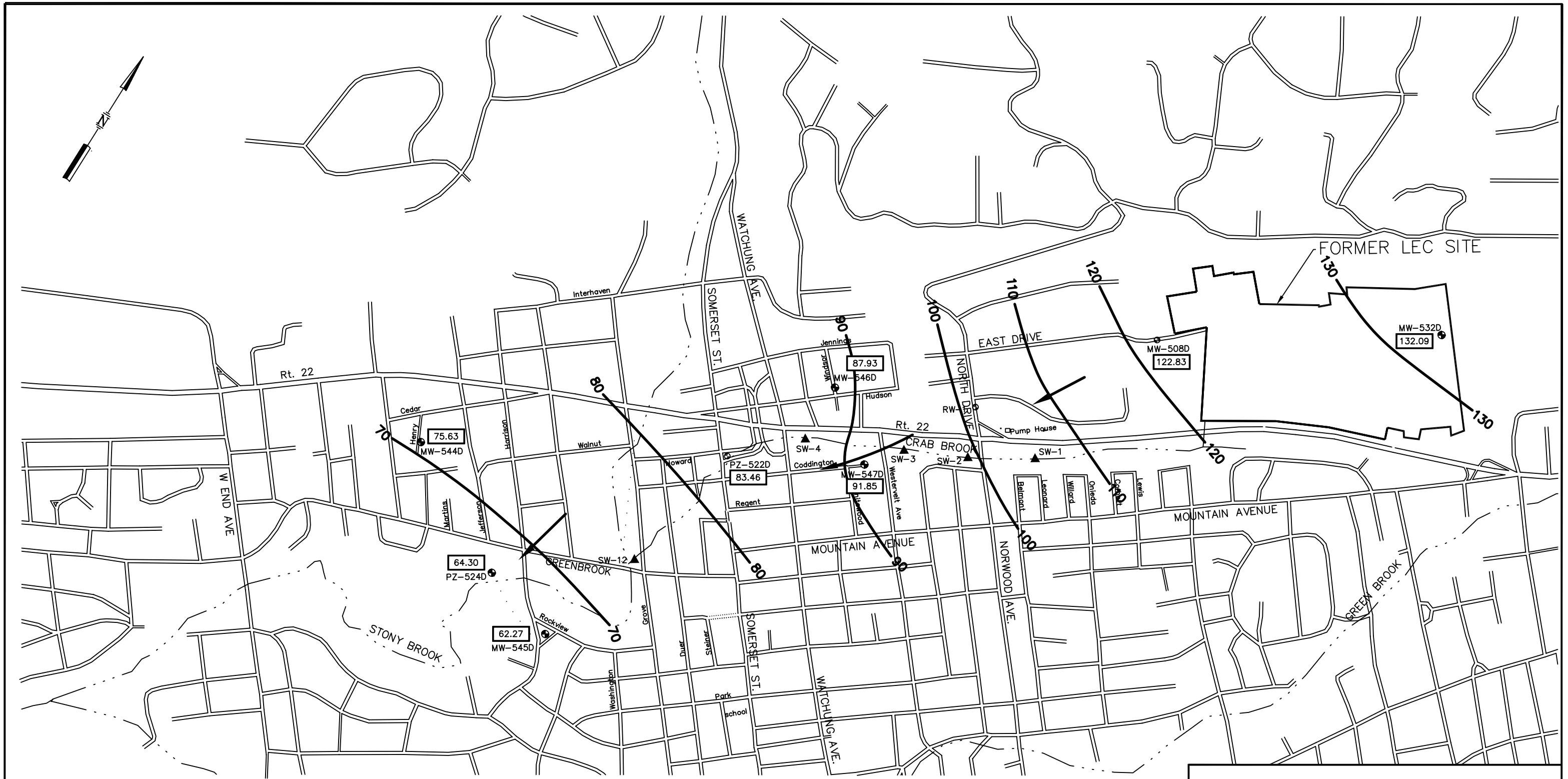
INTERMEDIATE ZONE GROUND WATER CONTOUR MAP
MARCH 9, 2010

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE : 7 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542-FIGURE 7.DWG, DATE: 10/01/2010 07:28:46AM




LEGEND

- ● ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION
- [66.31] GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT MSL)
- NM = NOT MEASURED
- 130 GROUND WATER CONTOUR IN FT MSL
- GROUND WATER FLOW DIRECTION

0 1000 ft.
APPROXIMATE SCALE

**TRC ENVIRONMENTAL CORP.**
57 East Willow Street
Millburn, New Jersey 07041

DEEP ZONE GROUND WATER CONTOUR MAP
MARCH 9, 2010

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE : 8 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542-FIGURE 8.DWG, DATE: 10/01/2010 07:29:14AM

MW-506 S

| DATE | 9/23/2003 | 12/10/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/3/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/11/2009 | 9/8/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 14 | 15 | 16 | 13 | 12 | 15 | 16 | 14 | 36 | 12 | 13 | 7.6 | 7.1 | 2.2 | 1.9 | 1.6 | 1.4 | 1.4 |
| TTVOC | 14 | 15 | 16 | 13 | 13 | 16 | 17 | 14 | 36 | 12.7 | 13 | 8.0 | 7.8 | 7.6 | 3.3 | 2.3 | 2.1 | 1.7 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-506 I

| DATE | 9/23/2003 | 12/10/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/3/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 6/2/2008 | 11/6/2008 | 3/11/2009 | 9/8/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 960 | 830 | 940 | 710 | 1300 | 720 | 650 | 730 | 620 | 700 | 860 | 420 | 380 | 139 | 1.8 | 2.5 | 1.5 | 1.5 |
| PCE | 3.1 U | 3.1 U | 3.1 U | 1.6 U | 3.6 U | 2.0 | 1.8 U | 2.2 U | 4.5 U | 2.2U | 2.8 | 2.1U | 1.5 | 1.8 | 1.6 | 1.4 | 1.0 | 1.2 |
| TTVOC | 971 | 836 | 940 | 717 | 1313 | 722 | 657 | 738 | 625 | 705 | 869 | 424 | 387 | 145 | 5.4 | 4.4 | 3.8 | 3.8 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-502 S

| DATE | 9/24/2003 | 12/11/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/3/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/9/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 1100 | 670 | 730 | 390 | 350 | 290 | 330 | 340 | 280 | 300 | 320 | 23 | 1.6 | 25.9 | 4.9 | 11.1 | 13.3 | 7.4 |
| PCE | 3.1 U | 3.1 U | 3.1 U | 1.0 | 1.8 U | 1.2 | 0.7 U | 0.9 | 0.9U | 0.9U | 1.1 | 0.7 | 0.6 | 0.5 | 0.58U | 0.58U | 0.29 U | 0.18 U |
| TTVOC | 1114 | 688 | 771 | 412 | 368 | 308 | 375 | 381 | 296 | 332 | 348 | 40.4 | 10.4 | 54.6 | 12.3 | 22.2 | 21.8 | 13.1 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-502 I

| DATE | 9/24/2003 | 12/11/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/3/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/9/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 1.4 | 1.0 | 0.8 | 0.6 | 0.6 | 0.9 | 1.2 | 0.8 | 0.6 | 0.6 | 0.9 | 0.4 | 0.5 | 0.53 | 0.6J | 0.50J | 0.60 J | 0.38 J |
| PCE | 2.1 | 1.6 | 1.5 | 1.0 | 1.0 | 1.6 | 1.8 | 1.8 | 0.6 | 1.3 | 1.6 | 1.1 | 1.4 | 1.51 | 1.6 | 1.4 | 1.6 | 1.27 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-507 S

| DATE | 3/25/2004 | 3/4/2005 | 3/7/2006 | 3/8/2007 | 3/19/2008 | 3/11/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|
| TCE | 16 | 25 | 19 | 7.9 | 14.7 | 1.9 | 2.1 |
| TTVOC | 16 | 21 | 19.6 | 8.2 | 15.5 | 2.7 | 3.8 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND |

MW-507 I

| DATE | 9/23/2003 | 12/11/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/4/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/22/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/11/2009 | 9/9/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 860 | 740 | 690 | 450 | 1100 | 610 | 540 | 570 | 600 | 600 | 0.4J | 300 | 470 | 174 | 413 | 47.3 | 3.1 | 2.1 |
| PCE | 860 | 748 | 698 | 460 | 1109 | 617 | 546 | 578 | 605.5 | 606.8 | ND | 306 | 477 | 185 | 423 | 49.7 | 5.0 | 3.8 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-508S

| DATE | 9/23/2003 | 12/11/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/4/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/11/2009 | 9/9/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 69 | 40 | 41 | 32 | 30 | 31 | 26 | 40 | 40 | 31 | 34 | 27 | 28 | 21.6 | 27.7 | 16.7 | 4.8 | 1.5 |
| PCE | 70 | 41 | 41 | 33 | 33 | 33 | 27 | 41 | 40.9 | 31.9 | 35.2 | 28.2 | 29.8 | 22.7 | 29.6 | 18 | 5.1 | 2.5 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-508 D

| DATE | 3/25/2004 | 3/4/2005 | 3/7/2006 | 3/8/2007 | 3/19/2008 | 3/11/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|
| TCE | 36 | 1.2 | 0.5 | 2.3 | 8.3 | 4.5 | 3.6 |
| TTVOC | 37 | 22 | 20.5 | 14.3 | 26.5 | 14.5 | 20.5 |
| TNTVOC | ND | ND | ND | ND | 19 | ND | ND |

MW-549 S

| DATE | 9/24/2003 | 12/10/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/3/2005 | 6/3/2005 | 10/14/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 2300 | 1800 | 1200 | 1400 | 1500 | 1200 | 1200 | 650 | 1300 | 1400 | 1100 | 710 | 1000 | 800 | 767 | 724 | 643 | 385 |
| PCE | 7.8 U | 8.5 | 13 | 6.7 | 9.0 U | 8.1 | 7.2 U | 3.9 | 6.6 | 4.5U | 6.7 | 4.2U | 4.8 | 4.5 | 5.7 | 2.5 | 4.3 | 4.0 |
| TTVOC | 2319 | 1825 | 1253 | 1416 | 1515 | 1216 | 1215 | 659 | 1319 | 1406 | 1114 | 715 | 1013 | 882 | 781 | 732 | 655 | 397 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-549 I

| DATE | 9/24/2003 | 12/10/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/3/2005 | 6/3/2005 | 10/14/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 1100 | 900 | 1000 | 880 | 820 | 850 | 820 | 98 | 1100 | 990 | 940 | 870 | 850 | 801 | 837 | 714 | 781 | 806 |
| PCE | 3.1U | 3.1U | 3.1U | 1.6U | 3.6U | 3.6U | 3.6U | 0.4U | 4.5U | 4.5U | 4.5U | 4.9 | 1.8U | 1.2 | 2.9U | 0.62U | 1.1 | 1.2 |
| TTVOC | 1100 | 900 | 1000 | 883 | 824 | 850 | 825 | 98 | 1106 | 996 | 940 | 882 | 854 | 806 | 841 | 717 | 786 | 811 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-532 D

| DATE | 3/25/2004 | 3/3/2005 | 3/7/2006 | 3/8/2007 | 3/19/2008 | 3/10/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|
| TCE | 33 | 37 | 43 | 29 | 33 | 31.3 | 11.4 |
| PCE | 0.5 | 1.0 | 1.1 | 1.2 | 0.96 | 1.2 | 1.1 |
| TTVOC | 34 | 38 | 41.1 | 30.2 | 34.0 | 32.5 | 12.7 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND |

MW-546 D

| DATE | 9/24/2003 | 12/11/2003 | 3/9/2004 | 6/4/2004 | 9/24/2004 | 12/9/2004 | 3/4/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/5/2007 | 3/19/2008 | 11/6/2008 | 3/11/2009 | 9/9/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 91 | 88 | 95 | 82 | 110 | 110 | 120 | 130 | 150 | 125 | 132 | 152 | 116 | 100 | 74.6 | 11.3 | 25.9 | |
| TTVOC | 94 | 91 | 93 | 85 | 114 | 115 | 114 | 124 | 134 | 155 | 124 | 114 | 125 | 121 | 100 | 78.8 | 15.5J | 29.5 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

PZ-522 S

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/22/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-DCA | 0.3 U | 0.3 U | 0.4 U | 2.9 | 0.3U | 0.3U | 0.3U | 0.3U | 0.5U | 0.31U | 0.31U | 0.43 U | 0.43 U | |
| 1,2-DCE | 16 | 0.2 U | 0.4 U | 25 | 0.4U | 0.4U | 0.5 | 0.4U | 0.4U | 0.2U | 0.045U | 0.45U | 0.14 U | 0.14 U |
| PCE | 1.6 | 0.3 U | 0.4 U | 3.1 | 0.4U | 0.4U | 0.4U | 0.4U | 0.4U | 0.3U | 0.58U | 0.58U | 0.18 U | 0.18 U |
| TTVOC | 24 | ND | 0.4 | 59 | ND | ND | 0.5 | ND | ND | ND | ND | ND | ND | ND |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

PZ-522 I

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 220 | 220 | 200 | 190 | 210 | 210 | 190 | 34 | 13 | 9.0 | 6.0 | 5.3 | 5.2 | 5.1 |
| PCE | 1.8 | 1.9 | 1.7 | 2.0 | 1.4 | 1.4 | 2.0 | 1.9 | 1.5 | 1.7 | 1.5 | 1.3 | 1.4 | 1.3 |
| TTVOC | 263 | 259 | 243 | 239 | 260.3 | 260.8 | 241 | 73 | 45.1 | 41.2 | 31.4 | 32.1 | 31.6 | 32.7 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

PZ-522 D

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 3.8 | 3.0 | 3.6 | 3.3 | 3 | 3 | NS | 2.2 | 3.1 | 2.4 | 3.0 | 2.2 | 2.2 | 2.0 |
| TTVOC | 7.9 | 5.4 | 6.4 | 6.1 | 5.3 | 5.7 | NS | 4.5 | 6 | 4.8 | 7.2 | 4.7 | 5.4 | 5.1 |
| TNTVOC | ND | ND | ND | ND | ND | ND | NS | ND | ND | ND | ND | ND | ND | ND |

PZ-523 I

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 1.3 | 1.8 | 1.3 | 1.8 | 1.5 | 1.5 | 1.1 | 0.7 | 1.6 | 0.35 | 1.1 | 2.1 | 0.89 J | 0.14 U |
| PCE | 4.0 | 4.6 | 3.1 | 3.0 | 2.2 | 1.9 | 2.7 | 1.9 | 2.8 | 0.47 | 2.1 | 3.3 | 1.8 | 0.55 J |
| TTVOC | 5.3 | 7.3 | 5.4 | 4.8 | 4.1 | 4.4 | 4.3 | 3.0 | 5.4 | 0.47 | 4.7 | 6.7 | 3.3 | 0.55 J |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-544 S

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 1.3 | 1.8 | 1.3 | 1.8 | 1.5 | 1.5 | 1.1 | 0.7 | 1.6 | 0.35 | 1.1 | 2.1 | 0.89 J | 0.14 U |
| PCE | 4.0 | 4.6 | 3.1 | 3.0 | 2.2 | 1.9 | 2.7 | 1.9 | 2.8 | 0.47 | 2.1 | 3.3 | 1.8 | 0.55 J |
| TTVOC | 5.3 | 7.3 | 5.4 | 4.8 | 4.1 | 4.4 | 4.3 | 3.0 | 5.4 | 0.47 | 4.7 | 6.7 | 3.3 | 0.55 J |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-544 I

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTVOC | 0.6 | 0.8 | 0.6 | ND | 0.6 | 0.7 | 0.8 | 0.7 | 0.70 | 0.79 | 0.87 | 0.70 | 0.8 J | 0.7 J |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-544 D

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-545 S

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTVOC | 1.3 | 1.8 | 0.5 | ND | ND | ND | ND | ND | ND | ND | ND | 1.0 | 0.60 J | 1.1 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-545 I

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TTVOC | 0.5 | ND | ND | ND | ND | ND | ND | 0.3 | 0.40 | 0.38 | ND | 0.32 | 0.4 J | 0.4 J |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-545 D

| DATE | 9/23/2003 | 3/9/2004 | 9/24/2004 | 3/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/8/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE | 4.6 | 4.4 | 3.6 | 3.8 | 3.3 | 3.1 | 3.7 | 3.6 | 3.7 | 3.7 | 3.5 | 3.4 | 3.1 | 3.1 |
| TTVOC | 5.2 | 4.4 | 4.0 | 3.8 | 3.3 | 3.1 | 4.2 | 3.9 | 4.1 | 4.4 | 3.5 | 4.2 | 3.8 | 3.5 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND | ND | ND | ND | ND |

MW-505 S

| DATE | 3/25/2004 | 3/3/2005 | 3/7/2006 | 3/8/2007 | 3/19/2008 | 3/10/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|
| TTVOC | 1.2 | 1.8 | 1.8 | 1.1 | 1.2 | 1.1 | 1.2 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND |

MW-505 I

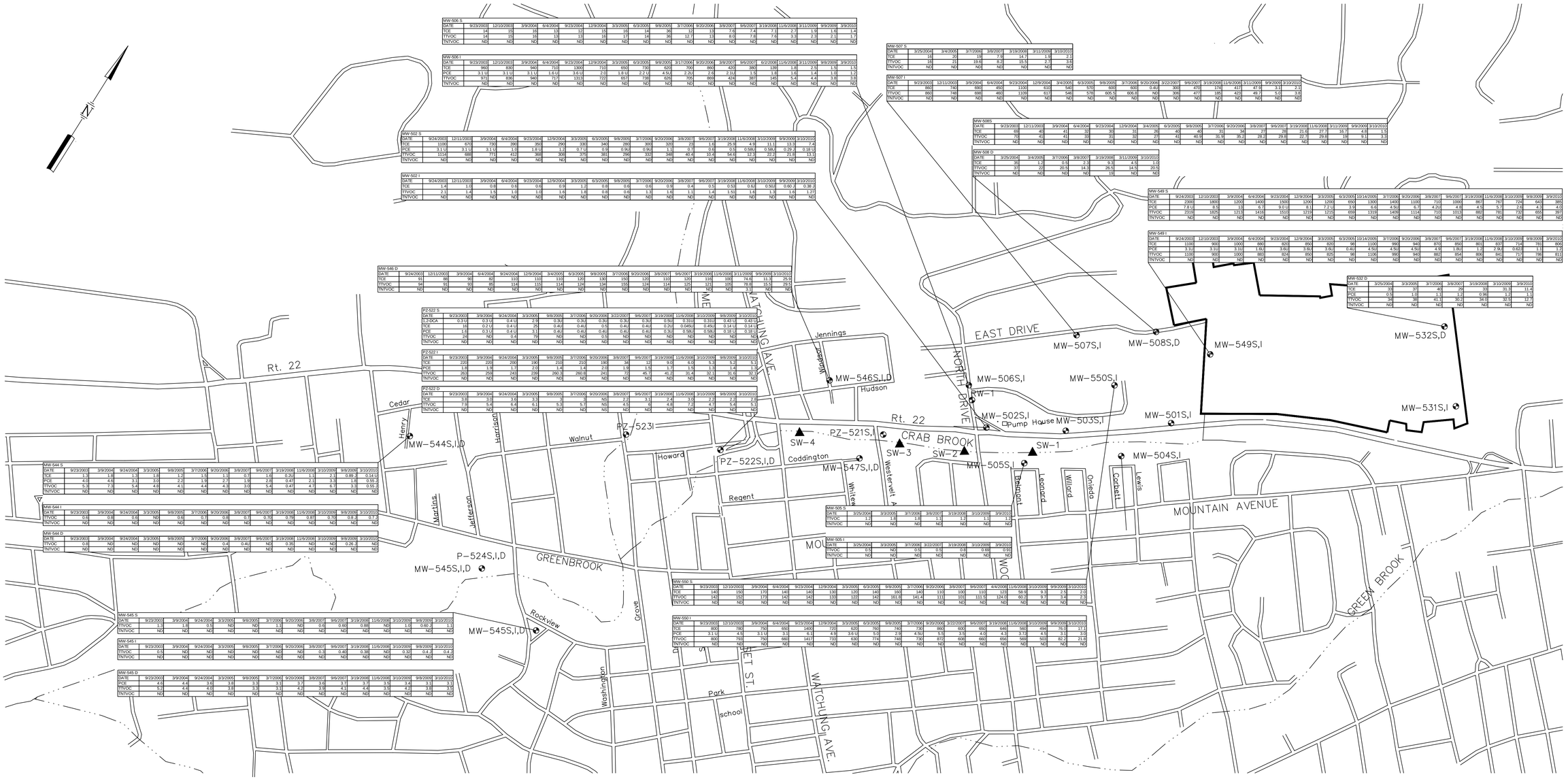
| DATE | 3/25/2004 | 3/3/2005 | 3/7/2006 | 3/22/2007 | 3/19/2008 | 3/10/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|
| TTVOC | 0.5 | ND | ND | 0.5 | 0.5 | 0.68 | 0.91 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND |

MW-550 S

| DATE | 9/23/2003 | 12/10/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/3/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/8/2007 | 9/6/2007 | 4/4/2008 | 11/6/2008 | 3/10/2009 | 9/9/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 140 | 150 | 170 | 140 | 140 | 130 | 120 | 140 | 160 | 140 | 110 | 100 | 110 | 123 | 58.9 | 9.3 | 2.5 | 2.0 |
| TTVOC | 142 | 152 | 173 | 142 | 142 | 133 | 122 | 143 | 161.8 | 141.4 | 111 | 101 | 111.5 | 124.6 | 60.2 | 9.7 | 3.4 | 2.3 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

MW-550 I

| DATE | 9/23/2003 | 12/10/2003 | 3/9/2004 | 6/4/2004 | 9/23/2004 | 12/9/2004 | 3/3/2005 | 6/3/2005 | 9/8/2005 | 3/7/2006 | 9/20/2006 | 3/22/2007 | 9/6/2007 | 3/19/2008 | 11/6/2008 | 3/10/2009 | 9/9/2009 | 3/10/2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 800 | 780 | 750 | 650 | 1400 | 720 | 620 | 760 | 740 | 730 | 860 | 600 | 650 | 646 | 366 | 498 | 76.6 | 17.1 |
| PCE | 3.1 U | 4.5 | 3.1 U | 3.1 | 6.1 | 4.9 | 3.6 U | 5.0 | 2.9 | 4.9U | 5.5 | 3.5 | 4.0 | 4.3 | 3.72 | 4.5 | 3.1 | 3.0 |
| TTVOC | 900 | 793 | 750 | 660 | 1417 | 733 | 630 | 774 | 748 | 730 | 872 | 608 | 660 | 656 | 369 | 503 | 82.2 | 21.9 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |




**VOLATILE ORGANIC COMPOUND (VOC) EXCEEDANCE PARAMETER LIST**

| | | GWQS |
|---|---|---|
| 1,1-DCA | = 1,1-DICHLOROETHANE | 50 |
| 1,2-DCA | = 1,2-DICHLOROETHANE | 2 |
| t-1,2-DCE | = TRANS-1,2-DICHLOROETHENE | 100 |
| c-1,2-DCE | = CIS-1,2-DICHLOROETHENE | 70 |
| CF | = CHLOROFORM | 6 |
| TCE | = TRICHLOROETHENE | 1 |
| PCE | = TETRACHLOROETHENE | 1 |
| TNTVOC | = TOTAL NON-TARGETED VOLATILE ORGANIC COMPOUNDS | 500 |
| TTVOC | = TOTAL TARGETED VOLATILE ORGANIC COMPOUNDS | |
| U | = COMPOUND WAS NOT DETECTED AT THE INDICATED CONCENTRATION | |

LEGEND

- ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION

0 500 FT.
APPROXIMATE SCALE

TRC ENVIRONMENTAL CORP.
57 East Willow Street
Millburn, New Jersey 07041

GROUND WATER SMPLING RESULTS
SEPTEMBER 2003 - MARCH 2010

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE: 9 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542-FIGURE 9.DWG, DATE: 10/01/2010 07:32:18AM

**SW-4**

| DATE | 7/22/2003 | 8/19/2003 | 9/22/2003 | 10/17/2003 | 11/14/2003 | 12/10/2003 | 1/9/2004 | 2/11/2004 | 3/8/2004 | 4/7/2004 | 5/10/2004 | 6/3/2004 | 7/1/2004 | 8/10/2004 | 9/23/2004 | 10/13/2004 | 11/9/2004 | 12/8/2004 | 1/13/2005 | 2/3/2005 | 3/2/2005 | 4/7/2005 | 5/9/2005 | 6/2/2005 | 7/15/2005 | 8/12/2005 | 9/8/2005 | 10/14/2005 | 11/22/2005 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 1.7 | ND | ND | ND | ND | ND | 0.6 | 0.6 | ND | ND | 0.7 | ND | ND | ND | ND | 0.4 | ND | ND | ND | ND | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND |
| BZ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCE | ND | ND | ND | 0.3 | ND | 1.0 | ND | ND | 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.5 | ND | ND | 0.5 | ND | ND | ND | ND | ND |
| TTVOC | ND | ND | ND | 0.3 | ND | 1.6 | 0.6 | 1.8 | 0.7 | ND | 0.7 | ND | ND | ND | ND | 0.4 | ND | 4.5 | 0.5 | ND | 1.1 | 2.5 | ND | ND | 0.5 | ND | ND | ND | ND | ND |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| DATE | 3/6/2006 | 9/19/2006 | 3/6/2007 | 9/5/2007 | 3/18/2008 | 11/6/2008 | 3/10/2009 | 9/9/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|---|---|
| TCE | ND | ND | ND | ND | 0.28 | ND | 0.49 J | ND | 0.17 J |
| BZ | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCE | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| TTVOC | ND | ND | ND | ND | 0.28 | 0.21 | 0.49 | ND | 0.17 J |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**SW-3**

| DATE | 7/22/2003 | 8/19/2003 | 9/22/2003 | 10/17/2003 | 11/14/2003 | 12/10/2003 | 1/9/2004 | 2/11/2004 | 3/8/2004 | 4/7/2004 | 5/10/2004 | 6/3/2004 | 7/1/2004 | 8/10/2004 | 9/23/2004 | 10/13/2004 | 11/9/2004 | 12/8/2004 | 1/13/2005 | 2/3/2005 | 3/2/2005 | 4/7/2005 | 5/9/2005 | 6/2/2005 | 7/15/2005 | 8/12/2005 | 9/8/2005 | 10/14/2005 | 11/22/2005 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCE | 2.6 | 1.2 | ND | ND | ND | ND | 1.1 | 0.8 | ND | 0.8 | 1.2 | ND | ND | ND | ND | ND | ND | 0.7 | ND | ND | ND | 0.4 | 1.6 | ND | ND | ND | ND | ND | ND | ND |
| PCE | ND | ND | ND | ND | ND | ND | ND | ND | 0.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| TTVOC | 2.6 | 1.2 | ND | ND | ND | ND | 1.1 | 2 | 0.4 | 0.3 | 1.2 | ND | ND | ND | ND | ND | 0.7 | ND | ND | 1.1 | ND | 0.8 | 1.6 | ND | ND | 1.7 | ND | ND | ND | ND |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| DATE | 3/6/2006 | 9/19/2006 | 3/6/2007 | 9/5/2007 | 3/18/2008 | 11/6/2008 | 3/10/2009 | 9/9/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|---|---|
| TCE | 0.6 | ND | ND | 0.4 | 0.51 | 0.59 J | 0.73 J | 0.33 J | 0.31 J |
| PCE | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| TTVOC | 0.6 | 0.7 | ND | 1.0 | 0.51 | 0.93 | 0.73 | 0.33 J | 2.67 |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**SW-2**

| DATE | 7/22/2003 | 8/19/2003 | 9/22/2003 | 10/17/2003 | 11/14/2003 | 12/10/2003 | 1/9/2004 | 2/11/2004 | 3/8/2004 | 4/7/2004 | 5/10/2004 | 6/3/2004 | 7/1/2004 | 8/10/2004 | 9/23/2004 | 10/13/2004 | 11/9/2004 | 12/8/2004 | 1/13/2005 | 2/3/2005 | 3/2/2005 | 4/7/2005 | 5/9/2005 | 6/2/2005 | 7/15/2005 | 8/12/2005 | 9/8/2005 | 10/14/2005 | 11/22/2005 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DCP | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.0 | ND | ND | ND | ND | ND | ND | ND |
| TCE | 3.6 | 2.2 | ND | ND | ND | ND | 2.1 | 1.4 | ND | 0.4 | 2.2 | ND | ND | 0.6 | ND | 1.7 | ND | 0.5 | 0.5 | 0.8 | 2.6 | 0.8 | ND | 0.5 | ND | ND | ND | ND | ND | ND |
| TTVOC | 3.6 | 2.2 | ND | ND | ND | ND | 2.1 | 1.4 | ND | 0.4 | 2.2 | ND | ND | 0.6 | ND | 1.7 | ND | 0.5 | ND | 1.2 | 2.6 | 1.5 | 1.7 | 1.4 | 0.5 | ND | ND | ND | ND | ND |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| DATE | 3/6/2006 | 9/19/2006 | 3/6/2007 | 9/5/2007 | 3/18/2008 | 11/6/2008 | 3/10/2009 | 9/9/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|---|---|
| DCP | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| TCE | 1.2 | 0.6 | ND | 1.1 | 0.77 | 1.0 | ND | 0.68 J | 0.33 J |
| TTVOC | 1.2 | 2 | ND | 2.8 | 0.77 | 2.8 | ND | 0.68 J | 0.33 J |
| TNTVOC | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**SW-1**

| 7/22/2003 | 8/19/2003 | 9/22/2003 | 10/17/2003 | 11/14/2003 | 12/10/2003 | 1/9/2004 | 2/11/2004 | 3/8/2004 | 4/7/2004 | 5/10/2004 | 6/3/2004 | 7/1/2004 | 8/10/2004 | 9/23/2004 | 10/13/2004 | 11/9/2004 | 12/8/2004 | 1/13/2005 | 2/3/2005 | 3/2/2005 | 4/7/2005 | 5/9/2005 | 6/2/2005 | 7/15/2005 | 8/12/2005 | 9/8/2005 | 10/14/2005 | 11/22/2005 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | ND | ND |
| 0.7 | ND | ND | ND | ND | ND | ND | ND | 0.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | ND | ND |
| ND | ND | ND | 9.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | NS | ND | ND |

| 3/6/2006 | 9/19/2006 | 3/6/2007 | 9/5/2007 | 3/18/2008 | 11/6/2008 | 3/10/2009 | 9/9/2009 | 3/9/2010 |
|---|---|---|---|---|---|---|---|---|
| ND | ND | ND | ND | 0.42 J | ND | 1.5 | ND | ND |
| ND | ND | ND | ND | 0.42 | ND | 1.8 | ND | ND |
| ND | ND | ND | ND | ND | ND | ND | ND | ND |


| VOLATILE ORGANIC COMPOUND (VOC) EXCEEDANCE PARAMETER LIST | FW-2 QC |
|---|---|
| DCP = cis-1,3-DICHLOROPROPENE | 0.193 |
| BZ = BENZENE | 0.15 |
| PCE = TETRACHLOROETHENE | *0.388* |
| TCE = TRICHLOROETHENE | *1.09* |
| TNTVOC = TOTAL NON-TARGETED VOLATILE ORGANIC COMPOUNDS | *500* |
| TTVOC = TOTAL TARGETED VOLATILE ORGANIC COMPOUNDS | |

LEGEND

- ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION

0 500 FT.
APPROXIMATE SCALE

TRC ENVIRONMENTAL CORP.
57 East Willow Street
Millburn, New Jersey 07041

SURFACE WATER SMPLING RESULTS
JULY 2003 - MARCH 2010

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

| SMC/ODL | DATE: APRIL 2010 | FIGURE: 10 |
|---|---|---|

FILE: M:\CAD FILES\WORK\2542\2010 RAPR\2542-FIGURE 10.DWG, DATE: 10/01/2010 07:30:57AM

# TABLES

# TABLE 1
# GROUND WATER AND SURFACE WATER MONITORING/SAMPLING SCHEDULE
# FORMER LEC SITE - WATCHUNG, NEW JERSEY

| Sample Locations (Current Well Designations) | | Sampling Month | Analytical Parameters |
|---|---|---|---|
| Surface Water: | SW-1, SW-2, SW-3, SW-4 | March, September | VOC+10 |
| Background Wells:<br>Plume Wells:<br>Compliance Wells: | 505 S, I; 507 S; 508 D; 532 D<br>502 S, I; 506 S, I; 507 I; 508 S; 546 D; 549 S, I; 550 S, I<br>P522 S, I, D; 544 S, I, D; 545 S, I, D | March | VOC+10 |
| Plume Wells:<br>Compliance Wells: | 502 S, I; 506 S, I; 507 I; 508 S; 546 D; 549 S, I; 550 S, I<br>P522 S, I, D; 544 S, I, D; 545 S, I, D | September | VOC+10 |

Note: Curretn and Former Well Designations Presented on Table 2.

**Table 2**
**Monitoring Well Construction Details**
**Former Lockheed Electronics Corporation Facility - Watchung, New Jersey**

***Wells Screening Shallow Zone (From Water Table to 50 Feet Above Mean Sea Level)***

| Current Well Designation | Former Well Designation | Permit Number | Date Installed | Measuring Point Elevation (ft.msl) | Type/ Diameter | Depth (feet) | Approximate Screened Interval (feet below surface) | Approximate Screened Interval Elevation (ft.msl) |
|---|---|---|---|---|---|---|---|---|
| MW-501 S | MW-501B | 25-43364 | 7/6/1993 | 121.09 | PVC/2 | 18 | 8 to 18 | 113 to 103 |
| MW-502 S | MW-502B | 25-43366 | 6/29/1993 | 103.85 | PVC/2 | 18 | 8 to 18 | 96 to 86 |
| MW-503 S | MW-503B | 25-43368 | 6/22/1993 | 110.58 | PVC/2 | 23.7 | 8.7 to 23.7 | 102 to 87 |
| MW-504 S | MW-504B | 25-43520 | 7/15/1993 | 112.09 | PVC/2 | 19.5 | 6.5 to 19.5 | 106 to 93 |
| MW-505 S | MW-505B | 25-43522 | 7/20/1993 | 103.73 | PVC/2 | 19.7 | 9.7 to 19.7 | 94 to 84 |
| MW-506 S | MW-506B | 25-43517 | 7/21/1993 | 121.28 | PVC/2 | 24.6 | 14.6 to 24.6 | 107 to 97 |
| MW-507 S | MW-507B | 25-43516 | 9/17/1993 | 176.39 | PVC/2 | 59.7 | 49.7 to 59.7 | 127 to 117 |
| MW-508 S | MW-508B | 25-43524 | 7/27/1993 | 187.13 | PVC/2 | 67.7 | 57.7 to 67.7 | 129 to 119 |
| MW-531 S | MW-531B | 25-47891 | 10/21/1995 | 138.46 | PVC/2 | 48 | 38 to 48 | 100 to 90 |
| MW-532 S | MW-532B | 25-47893 | 10/20/1995 | 185.35 | PVC/2 | 102.7 | 93 to 103 | 92 to 82 |
| MW-544 S | MW-544C | 25-54779 | 10/13/1999 | 86.04 | PVC/2 | 23 | 3 to 23 | 83 to 63 |
| MW-545 S | MW-545C | 25-54786 | 10/9/1999 | 85.75 | PVC/2 | 35 | 15 to 35 | 71 to 51 |
| MW-546 S | MW-546C | 25-55005 | 10/19/1999 | 108.16 | PVC/2 | 32 | 12 to 32 | 96 to 76 |
| MW-547 S | MW-547C | 25-54780 | 10/11/1999 | 98.32 | PVC/2 | 22 | 2 to 22 | 96 to 76 |
| MW-549 S | MW-549B | 25-60735 | 10/31/2002 | 179.77 | PVC/2 | 110 | 90 to 110 | 90 to 70 |
| MW-550 S | MW-550C | 25-60738 | 10/31/2002 | 132.13 | PVC/2 | 50 | 30 to 50 | 102 to 82 |
| PZ-521 S | PZ-521C | 25-45029 | 5/26/1994 | 100.07 | PVC/2 | 15.2 | 5.2 to 15.2 | 95 to 85 |
| PZ-522 S | PZ-522C | 25-45020 | 6/4/1994 | 93.78 | PVC/2 | 17.7 | 7.7 to 17.7 | 86 to 76 |
| PZ-524 S | PZ-524C | 25-45026 | 7/18/1994 | 67.78 | PVC/2 | 14.7 | 4.7 to 14.7 | 63 to 53 |

***Wells Screening Intermediate Zone (From 50 Feet Above Mean Sea Level to 50 Feet Below Sea Level)***

| Current Well Designation | Former Well Designation | Permit Number | Date Installed | Measuring Point Elevation (ft.msl) | Type/ Diameter | Depth (feet) | Approximate Screened Interval (feet below surface) | Approximate Screened Interval Elevation (ft.msl) |
|---|---|---|---|---|---|---|---|---|
| MW-501 I | MW-501A | 25-43363 | 7/7/1993 | 120.90 | PVC/2 | 74.5 | 64.5 to 74.5 | 56 to 46 |
| MW-502 I | MW-502A | 25-43365 | 7/8/1993 | 103.87 | PVC/2 | 74.7 | 64.7 to 74.7 | 39 to 29 |
| MW-503 I | MW-503A | 25-43367 | 6/30/1993 | 110.26 | PVC/2 | 71.5 | 61.5 to 71.5 | 49 to 39 |
| MW-504 I | MW-504A | 25-43521 | 7/15/1993 | 112.10 | PVC/2 | 76 | 66 to 76 | 46 to 36 |
| MW-505 I | MW-505A | 25-43523 | 7/20/1993 | 103.85 | PVC/2 | 75 | 65 to 75 | 39 to 29 |
| MW-506 I | MW-506A | 25-43518 | 7/22/1993 | 122.22 | PVC/2 | 99 | 89 to 99 | 34 to 24 |
| MW-507 I | MW-507A | 25-43821 | 10/5/1993 | 176.39 | PVC/4 | 152 | 142 to 152 | 35 to 25 |
| MW-531 I | MW-531A | 25-47890 | 10/12/1995 | 138.43 | PVC/2 | 142 | 132 to 142 | 6 to -4 |
| MW-544 I | MW-544B | 25-54778 | 8/23/1999 | 86.00 | PVC/2 | 100 | 80 to 100 | 6 to -14 |
| MW-545 I | MW-545B | 25-54785 | 10/12/1999 | 85.80 | PVC/2 | 93 | 73 to 93 | 13 to -7 |
| MW-546 I | MW-546B | 25-55004 | 10/20/1999 | 107.06 | PVC/2 | 100 | 80 to 100 | 27 to 7 |
| MW-547 I | MW-547B | 25-54781 | 10/13/1999 | 98.46 | PVC/2 | 100 | 80 to 100 | 18 to -2 |
| MW-549 I | MW-549A | 25-60736 | 10/31/2002 | 179.31 | PVC/2 | 210 | 190 to 210 | -11 to -31 |
| MW-550 I | MW-550B | 25-60737 | 10/31/2002 | 132.56 | PVC/2 | 100 | 80 to 100 | 53 to 33 |
| PZ-521 I | PZ-521B | 25-45028 | 5/20/1994 | 99.84 | PVC/2 | 102.6 | 92.6 to 102.6 | 7 to -3 |
| PZ-522 I | PZ-522B | 25-45019 | 6/16/1994 | 93.78 | PVC/2 | 101 | 91 to 101 | 3 to -7 |
| PZ-523 I | PZ-523B | 25-45022 | 6/21/1994 | 94.05 | PVC/2 | 102 | 92 to 102 | 2 to -8 |
| PZ-524 I | PZ-524B | 25-45025 | 7/14/1994 | 67.86 | PVC/2 | 97.7 | 87.7 to 97.7 | -20 to -30 |

***Wells Screening Deep Zone (Deeper Than 50 Feet Below Sea Level)***

| Current Well Designation | Former Well Designation | Permit Number | Date Installed | Measuring Point Elevation (ft.msl) | Type/ Diameter | Depth (feet) | Approximate Screened Interval (feet below surface) | Approximate Screened Interval Elevation (ft.msl) |
|---|---|---|---|---|---|---|---|---|
| MW-508 D | MW-508A | 25-43525 | 10/1/1993 | 186.85 | PVC/4 | 262.7 | 252.7 to 262.7 | -66 to -76 |
| MW-532 D | MW-532A | 25-47892 | 10/18/1995 | 186.55 | PVC/2 | 263 | 253 to 263 | -66 to -76 |
| MW-544 D | MW-544A | 25-54777 | 10/15/1999 | 85.81 | PVC/2 | 200 | 180 to 200 | -94 to -114 |
| MW-545 D | MW-545A | 25-54784 | 10/6/1999 | 85.69 | PVC/2 | 200 | 180 to 200 | -94 to -114 |
| MW-546 D | MW-546A | 25-55003 | 10/21/1999 | 106.55 | PVC/2 | 200 | 180 to 200 | -73 to -93 |
| MW-547 D | MW-547A | 25-54782 | 10/15/1999 | 98.33 | PVC/2 | 200 | 180 to 200 | -82 to -102 |
| PZ-522 D | PZ-522A | 25-45018 | 6/9/1994 | 93.85 | PVC/2 | 197.7 | 187.7 to 197.7 | -94 to -104 |
| PZ-524 D | PZ-524A | 25-45024 | 7/11/1994 | 68.12 | PVC/2 | 195.7 | 185.7 to 195.7 | -118 to -128 |

ft.msl = Feet Above Mean Sea Level

**TABLE 3**
**GROUND WATER ELEVATION DATA**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Monitoring Well | Well Depths ft. (bgs) | TOC Elevation ft. (MSL) | September 8, 2009 | | March 9, 2010 | |
|---|---|---|---|---|---|---|
| | | | Depth to Water | GW Elevation ft. (MSL) | Depth to Water | GW Elevation ft. (MSL) |
| MW-501S | 19 | 121.07 | 4.54 | 116.53 | 3.45 | 117.62 |
| MW-501 I | 75.5 | 120.90 | 11.47 | 109.43 | 9.65 | 111.25 |
| MW-502 S | 19 | 103.85 | 3.33 | 100.52 | 1.66 | 102.19 |
| MW-502 I | 75.5 | 103.89 | 4.63 | 99.26 | 2.83 | 101.06 |
| MW-503 S | 24.4 | 110.58 | 6.37 | 104.21 | 4.78 | 105.80 |
| MW-503 I | 73 | 110.26 | 7.07 | 103.19 | 4.93 | 105.33 |
| MW-504 S | 19.8 | 112.09 | NM | NM | 4.47 | 107.62 |
| MW-504 I | 76.5 | 112.10 | 7.10 | 105.00 | 3.28 | 108.82 |
| MW-505 S | 20 | 107.73 | 7.49 | 100.24 | 5.00 | 102.73 |
| MW-505 I | 75 | 108.27 | 7.09 | 101.18 | 4.03 | 104.24 |
| MW-506 S | 25 | 121.28 | 9.84 | 111.44 | 7.00 | 114.28 |
| MW-506 I | 96.3 | 122.22 | 29.88 | 92.34 | 28.02 | 94.20 |
| MW-507 S | 60 | 176.39 | 49.23 | 127.16 | 47.60 | 128.79 |
| MW-507 I | 151 | 176.39 | 54.76 | 121.63 | 52.51 | 123.88 |
| MW-508 S | 68 | 187.13 | 57.80 | 129.33 | 56.25 | 130.88 |
| MW-508 D | 263 | 186.85 | 66.08 | 120.77 | 64.02 | 122.83 |
| MW-531 S | 47.9 | 138.46 | 10.34 | 128.12 | 8.99 | 129.47 |
| MW-531 I | 142.2 | 138.43 | 13.26 | 125.17 | 11.31 | 127.12 |
| MW-532 S | 102.7 | 185.35 | 51.21 | 134.14 | 50.95 | 134.40 |
| MW-532 D | 250 | 186.55 | 55.17 | 131.38 | 54.46 | 132.09 |
| MW-544 S | 23 | 86.04 | 3.97 | 82.07 | 7.62 | 78.42 |
| MW-544 I | 100 | 86.00 | 8.75 | 77.25 | NM | NM |
| MW-544 D | 197 | 85.81 | 11.32 | 74.49 | 10.18 | 75.63 |
| MW-545 S | 35 | 85.75 | 14.31 | 71.44 | 13.48 | 72.27 |
| MW-545 I | 92 | 85.80 | 20.02 | 65.78 | 19.11 | 66.69 |
| MW-545 D | 197 | 85.69 | 19.38 | 66.31 | 18.42 | 67.27 |
| MW-546 S | 31 | 108.16 | 12.64 | 95.52 | 8.97 | 99.19 |
| MW-546 I | 100 | 107.06 | 14.51 | 92.55 | 12.35 | 94.71 |
| MW-546 D | 200 | 106.55 | 19.15 | 87.40 | 18.62 | 87.93 |
| MW-547 S | 22 | 98.32 | 7.31 | 91.01 | 5.54 | 92.78 |
| MW-547 I | 100 | 98.25 | 8.01 | 90.24 | 6.20 | 92.05 |
| MW-547 D | 200 | 98.17 | 7.99 | 90.18 | 6.32 | 91.85 |
| MW-549 S | 115 | 179.77 | 54.63 | 125.14 | 52.40 | 127.37 |
| MW-549 I | 215 | 179.31 | 56.54 | 122.77 | 54.25 | 125.06 |
| MW-550 S | 50 | 132.13 | 22.57 | 109.56 | 18.93 | 113.20 |
| MW-550 I | 101 | 132.56 | 21.33 | 111.23 | 20.21 | 112.35 |
| PZ-521 S | 15.5 | 100.07 | 8.86 | 91.21 | 6.70 | 93.37 |
| PZ-521 I | 100.26 | 99.84 | 8.39 | 91.45 | 9.59 | 90.25 |
| PZ-522 S | 17.5 | 93.78 | 7.8 | 85.98 | 7.14 | 86.64 |
| PZ-522 I | 100 | 93.78 | 10.81 | 82.97 | 9.13 | 84.65 |
| PZ-522 D | 197 | 93.85 | 12.08 | 81.77 | 10.39 | 83.46 |
| PZ-523 I | 103 | 94.05 | 12.32 | 81.73 | 11.76 | 82.29 |
| PZ-524 S | 15 | 67.29 | 5.41 | 61.88 | 4.51 | 62.78 |
| PZ-524 I | 99 | 68.39 | 6.36 | 62.03 | 5.42 | 62.97 |
| PZ-524 D | 199 | 68.33 | 5.06 | 63.27 | 4.03 | 64.30 |
| RW-1 | 150 | 110.91 | 70.10 | 40.81 | 67.70 | 43.21 |

MW = Monitoring Well; PZ = Piezometer; RW = Recovery (Extraction) Well
bgs = Below Ground Surface
TOC = Top of Casing
RW-1 was continuously pumping at a rate of approximately 120-130 gallons per minute during ground water gauging activities.
NM = Not Measured

**TABLE 4**
**GROUND WATER ANALYTICAL RESULTS**
**SEPTEMBER 2009 THROUGH MARCH 2010**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| **Sample ID** | | MW-502 S | MW-502 I | MW-506 S | MW-506 I | MW-507 I | MW-508 S | PZ-522 S | PZ-522 I | PZ-522 D | MW-544 S | MW-544 I | MW-544 D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample Number** | **New Jersey** | JA27535-22 | JA27535-23 | JA27535-17 | JA27535-13 | JA27535-18 | JA27535-19 | JA27535-12 | JA27535-11 | JA27535-10 | JA27535-8 | JA27535-9 | JA27535-7 |
| **Sampling Date** | **Ground Water** | 09/09/09 | 09/09/09 | 09/09/09 | 09/08/09 | 09/09/09 | 09/09/09 | 09/08/09 | 09/08/09 | 09/08/09 | 09/08/09 | 09/08/09 | 09/08/09 |
| **Matrix** | **Quality Standard** | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER |
| **Units** | **ug/L** | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| VOLATILE COMPOUNDS (GC/MS) | | | | | | | | | | | | | |
| Benzene | *1* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Bromodichloromethane | *1* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Bromoform | *4* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| Bromomethane | *10* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| Carbon Tetrachloride | *1* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Chlorobenzene | *50* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Chloroethane | *– –* | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U |
| 2-Chloroethyl Vinyl Ether | *– –* | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U |
| Chloroform | *70* | 0.32 J | 1.0 | 0.46 J | 0.74 J | 0.75 J | 3.8 | 0.18 U | 3.5 | 2.6 | 0.18 U | 0.18 U | 0.18 U |
| Chloromethane | *– –* | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U |
| Dibromochloromethane | *1* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| 1,1-Dichloroethane | *50* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 2.8 | 0.36 J | 0.26 U | 0.26 U | 0.26 U |
| 1,2-Dichloroethane | *2* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| 1,1-Dichloroethene | *1* | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U |
| cis-1,2-Dichloroethene | *70* | 7.9 | 0.22 U | 0.22 U | 0.54 J | 0.55 J | 0.22 U | 0.22 U | 18.5 | 0.22 U | 0.57 J | 0.22 U | 0.22 U |
| trans-1,2-Dichloroethene | *100* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.23 J | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| 1,2-Dichloropropane | *1* | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U |
| cis-1,3-Dichloropropene | *– –* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| trans-1,3-Dichloropropene | *– –* | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U |
| Ethylbenzene | *700* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Methylene Chloride | *3* | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U |
| 1,1,2,2-Tetrachloroethane | *1* | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U |
| **Tetrachloroethene** | *1* | 0.29 J | 0.18 U | 0.18 U | 1.0 | 0.37 J | 0.18 U | 0.18 U | **1.4** | 0.20 J | **1.8** | 0.18 U | 0.18 U |
| Toluene | *600* | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.25 J | 0.52 J | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| 1,1,1-Trichloroethane | *30* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| 1,1,2-Trichloroethane | *3* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| **Trichloroethene** | *1* | **13.3** | 0.60 J | **1.6** | **1.5** | **3.1** | **4.8** | 0.14 U | **5.2** | **2.2** | 0.89 J | 0.77 J | 0.26 J |
| Trichlorofluoromethane | *2000* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| **Vinyl Chloride** | *1* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Xylene (Total) | *1000* | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U |
| Total Confident Conc. VOCs | | 21.81 | 1.6 | 2.06 | 3.78 | 5.02 | 9.12 | ND | 31.63 | 5.36 | 3.26 | 0.77 J | 0.26 J |
| Total Estimated Conc. VOC TICs | *500* | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
ug/L - micrograms/Liter
U - compound not detected at indicated concentration
– – = No applicable criteria
VOCs - Volatile Organic Compounds
TICs - Tenetatively Identified Compounds
Bold - indicates exceedence of New Jersey GWQS

**TABLE 4**
**GROUND WATER ANALYTICAL RESULTS**
**SEPTEMBER 2009 THROUGH MARCH 2010**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| **Sample ID** | | MW-545 S | MW-545 I | MW-545 D | MW-546 D | MW-549 S | MW-549 I | MW-550 S | MW-550 I | FIELD BLANK | TRIP BLANK | MW-502 S | MW-502 I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample Number** | **New Jersey** | JA27535-6 | JA27535-5 | JA27535-4 | JA27535-24 | JA27535-1 | JA27535-2 | JA27535-21 | JA27535-20 | JA27535-25 | JA27535-26 | JA41514-17 | JA41514-16 |
| **Sampling Date** | **Ground Water** | 09/08/09 | 09/08/09 | 09/08/09 | 09/09/09 | 09/08/09 | 09/08/09 | 09/09/09 | 09/09/09 | 09/09/09 | 09/09/09 | 03/10/10 | 03/10/10 |
| **Matrix** | **Quality Standard** | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER |
| **Units** | **ug/L** | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| VOLATILE COMPOUNDS (GC/MS) | | | | | | | | | | | | | |
| Benzene | *1* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Bromodichloromethane | *1* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Bromoform | *4* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| Bromomethane | *10* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| Carbon Tetrachloride | *1* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Chlorobenzene | *50* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Chloroethane | *– –* | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U |
| 2-Chloroethyl Vinyl Ether | *– –* | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U |
| Chloroform | *70* | 0.60 J | 0.42 J | 0.39 J | 3.8 | 2.1 | 0.28 J | 0.51 J | 1.3 | 0.18 U | 0.18 U | 0.18 U | 0.89 J |
| Chloromethane | *– –* | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U |
| Dibromochloromethane | *1* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| 1,1-Dichloroethane | *50* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| 1,2-Dichloroethane | *2* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| 1,1-Dichloroethene | *1* | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U |
| cis-1,2-Dichloroethene | *70* | 0.22 U | 0.22 U | 0.22 U | 0.37 J | 5.4 | 3.3 | 0.38 J | 1.8 | 0.22 U | 0.22 U | 5.7 | 0.22 U |
| trans-1,2-Dichloroethene | *100* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| 1,2-Dichloropropane | *1* | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U |
| cis-1,3-Dichloropropene | *– –* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| trans-1,3-Dichloropropene | *– –* | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U |
| Ethylbenzene | *700* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Methylene Chloride | *3* | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U |
| 1,1,2,2-Tetrachloroethane | *1* | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U |
| **Tetrachloroethene** | *1* | 0.18 U | 0.18 U | **3.1** | 0.18 U | **4.3** | **1.1** | 0.18 U | **3.1** | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Toluene | *600* | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| 1,1,1-Trichloroethane | *30* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| 1,1,2-Trichloroethane | *3* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| **Trichloroethene** | *1* | 0.14 U | 0.14 U | 0.28 J | **11.3** | **643** | **781** | **2.5** | **76.0** | 0.14 U | 0.14 U | **7.4** | 0.38 J |
| Trichlorofluoromethane | *2000* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| **Vinyl Chloride** | *1* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Xylene (Total) | *1000* | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U |
| Total Confident Conc. VOCs | | 0.60 J | 0.42 J | 3.8 | 15.47 | 654.80 | 785.68 | 3.39 | 82.2 | ND | ND | 13.1 | 1.27 |
| Total Estimated Conc. VOC TICs | *500* | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
ug/L - micrograms/Liter
U - compound not detected at indicated concentration
– – = No applicable criteria
VOCs - Volatile Organic Compounds
TICs - Tenetatively Identified Compounds
Bold - indicates exceedence of New Jersey GWQS

**TABLE 4**
**GROUND WATER ANALYTICAL RESULTS**
**SEPTEMBER 2009 THROUGH MARCH 2010**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| **Sample ID** | | MW-505 S | MW-505 I | MW-506 S | MW-506 I | MW-507 S | MW-507 I | MW-508 S | MW-508 D | PZ-522 S | PZ-522 I | PZ-522 D | MW-532 D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample Number** | **New Jersey** | JA41514-5 | JA41514-6 | JA41514-10 | JA41514-11 | JA41514-13 | JA41514-12 | JA41514-15 | JA41514-14 | JA41514-21 | JA41514-20 | JA41514-19 | JA41514-7 |
| **Sampling Date** | **Ground Water** | 3/9/2010 | 3/9/2010 | 03/09/10 | 03/09/10 | 03/10/10 | 03/10/10 | 03/10/10 | 03/10/10 | 03/10/10 | 03/10/10 | 03/10/10 | 3/9/2010 |
| **Matrix** | **Quality Standard** | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER |
| **Units** | **ug/L** | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| VOLATILE COMPOUNDS (GC/MS) | | | | | | | | | | | | | |
| Benzene | *1* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Bromodichloromethane | *1* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Bromoform | *4* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| Bromomethane | *10* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| Carbon Tetrachloride | *1* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Chlorobenzene | *50* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Chloroethane | *– –* | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U |
| 2-Chloroethyl Vinyl Ether | *– –* | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U |
| Chloroform | *70* | 1.2 | 0.91 J | 0.34 J | 0.71 J | 1.5 | 0.86 J | 1.8 | 0.18 U | 0.18 U | 3.5 | 2.3 | 0.21 J |
| Chloromethane | *– –* | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U |
| Dibromochloromethane | *1* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| 1,1-Dichloroethane | *50* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 2.8 | 0.26 U | 0.26 U |
| 1,2-Dichloroethane | *2* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| 1,1-Dichloroethene | *1* | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U |
| cis-1,2-Dichloroethene | *70* | 0.22 U | 0.22 U | 0.22 U | 0.40 J | 0.22 U | 0.45 J | 0.22 U | 13.5 | 0.22 U | 19.2 | 0.22 U | 0.22 U |
| trans-1,2-Dichloroethene | *100* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| 1,2-Dichloropropane | *1* | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U |
| cis-1,3-Dichloropropene | *– –* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| trans-1,3-Dichloropropene | *– –* | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U |
| Ethylbenzene | *700* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Methylene Chloride | *3* | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U |
| 1,1,2,2-Tetrachloroethane | *1* | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U |
| **Tetrachloroethene** | *1* | 0.18 U | 0.18 U | 0.18 U | **1.2** | 0.18 U | 0.40 J | 0.18 U | 0.18 U | 0.18 U | **1.3** | 0.18 U | **1.1** |
| Toluene | *600* | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.30 J | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| 1,1,1-Trichloroethane | *30* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| 1,1,2-Trichloroethane | *3* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| **Trichloroethene** | *1* | 0.14 U | 0.14 U | **1.4** | **1.5** | **2.1** | **2.1** | **1.5** | 1.0 | 0.14 U | **5.1** | **2.8** | **11.4** |
| Trichlorofluoromethane | *2000* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| **Vinyl Chloride** | *1* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | **5.7** | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Xylene (Total) | *1000* | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U |
| Total Confident Conc. VOCs | | 1.2 | 0.91 | 1.74 | 3.81 | 3.6 | 3.81 | 3.3 | 20.5 | ND | 32.1 | 5.1 | 12.71 |
| Total Estimated Conc. VOC TICs | *500* | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
ug/L - micrograms/Liter
U - compound not detected at indicated concentration
– – = No applicable criteria
VOCs - Volatile Organic Compounds
TICs - Tenetatively Identified Compounds
Bold - indicates exceedence of New Jersey GWQS

**TABLE 4**
**GROUND WATER ANALYTICAL RESULTS**
**SEPTEMBER 2009 THROUGH MARCH 2010**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| **Sample ID** | | MW-544 S | MW-544 I | MW-544 D | MW-545 S | MW-545 I | MW-545 D | MW-546 D | MW-549 S | MW-549 I | MW-550 S | MW-550 I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample Number** | **New Jersey** | JA41514-27 | JA41514-26 | JA41514-25 | JA41514-24 | JA41514-23 | JA41514-22 | JA41514-18 | JA41514-8 | JA41514-9 | JA41514-29 | JA41514-28 |
| **Sampling Date** | **Ground Water** | 03/10/10 | 03/10/10 | 03/10/10 | 03/10/10 | 03/10/10 | 03/10/10 | 03/10/10 | 03/09/10 | 03/09/10 | 03/10/10 | 03/10/10 |
| **Matrix** | **Quality Standard** | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER |
| **Units** | **ug/L** | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| VOLATILE COMPOUNDS (GC/MS) | | | | | | | | | | | | |
| Benzene | *1* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Bromodichloromethane | *1* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Bromoform | *4* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| Bromomethane | *10* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| Carbon Tetrachloride | *1* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Chlorobenzene | *50* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Chloroethane | *– –* | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U |
| 2-Chloroethyl Vinyl Ether | *– –* | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U |
| Chloroform | *70* | 0.18 U | 0.18 U | 0.18 U | 1.1 | 0.35 J | 0.37 J | 3.6 | 2.6 | 0.23 J | 0.31 J | 0.99 J |
| Chloromethane | *– –* | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U |
| Dibromochloromethane | *1* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| 1,1-Dichloroethane | *50* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| 1,2-Dichloroethane | *2* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| 1,1-Dichloroethene | *1* | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U |
| cis-1,2-Dichloroethene | *70* | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 5.0 | 3.7 | 0.22 U | 0.66 J |
| trans-1,2-Dichloroethene | *100* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| 1,2-Dichloropropane | *1* | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U |
| cis-1,3-Dichloropropene | *– –* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| trans-1,3-Dichloropropene | *– –* | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U |
| Ethylbenzene | *700* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Methylene Chloride | *3* | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U |
| 1,1,2,2-Tetrachloroethane | *1* | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U |
| **Tetrachloroethene** | *1* | 0.55 J | 0.18 U | 0.18 U | 0.18 U | 0.18 U | **3.1** | 0.18 U | **4.0** | **1.2** | 0.18 U | **3.0** |
| Toluene | *600* | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| 1,1,1-Trichloroethane | *30* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| 1,1,2-Trichloroethane | *3* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| **Trichloroethene** | *1* | 0.14 U | 0.72 J | 0.14 U | 0.14 U | 0.14 U | 0.14 U | **25.9** | **385** | **806** | **2.0** | **17.1** |
| Trichlorofluoromethane | *2000* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| **Vinyl Chloride** | *1* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Xylene (Total) | *1000* | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U |
| Total Confident Conc. VOCs | | 0.55 J | 0.72 J | ND | 1.1 | 0.35 J | 3.47 | 29.5 | 396.6 | 811.13 | 2.31 | 21.75 |
| Total Estimated Conc. VOC TICs | *500* | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
ug/L - micrograms/Liter
U - compound not detected at indicated concentration
– – = No applicable criteria
VOCs - Volatile Organic Compounds
TICs - Tenetatively Identified Compounds
Bold - indicates exceedence of New Jersey GWQS

**TABLE 5**
**HISTORICAL TCE CONCENTRATIONS IN GROUND WATER**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 08/13/93 | MW-502I | **3** | |
| 10/22/93 | MW-502I | **5** | |
| 04/27/94 | MW-502I | **1.6** | |
| 11/09/94 | MW-502I | **2.02** | |
| 06/01/95 | MW-502I | **2.3** | |
| 03/30/96 | MW-502I | **2.9** | * |
| 09/27/97 | MW-502I | **7.8** | |
| 05/02/98 | MW-502I | **5.2** | |
| 09/25/98 | MW-502I | **7.9** | |
| 11/12/99 | MW-502I | **5.9** | |
| 11/21/02 | MW-502I | **3.1** | |
| 03/25/03 | MW-502I | **2.5** | |
| 06/25/03 | MW-502I | **2.7** | |
| 09/24/03 | MW-502I | **1.4** | |
| 12/11/03 | MW-502I | 1.0 | |
| 03/09/04 | MW-502I | 0.8 | |
| 06/04/04 | MW-502I | 0.6 | |
| 09/23/04 | MW-502I | 0.6 | |
| 12/09/04 | MW-502I | 0.9 | |
| 03/03/05 | MW-502I | **1.2** | |
| 06/03/05 | MW-502I | 0.8 | |
| 09/08/05 | MW-502I | 0.6 | |
| 03/07/06 | MW-502I | 0.6 | |
| 09/20/06 | MW-502I | 0.9 | |
| 03/08/07 | MW-502I | 0.4 | |
| 09/06/07 | MW-502I | 0.5 | |
| 03/19/08 | MW-502I | 0.53 | J |
| 11/06/08 | MW-502I | 0.6 | J |
| 03/10/09 | MW-502I | 0.50 | J |
| 09/09/09 | MW-502I | 0.60 | J |
| 03/10/10 | MW-502I | 0.38 | J |

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 08/13/93 | MW-502S | **1200** | * |
| 10/22/93 | MW-502S | **1300** | |
| 10/22/93 | MW-502S | **1300** | |
| 04/27/94 | MW-502S | **1200** | |
| 11/09/94 | MW-502S | **1700** | |
| 06/01/95 | MW-502S | **1510** | |
| 04/02/96 | MW-502S | **1300** | DJ |
| 09/28/97 | MW-502S | **1400** | |
| 05/02/98 | MW-502S | **1300** | |
| 09/25/98 | MW-502S | **1300** | |
| 09/25/98 | MW-502S | **1300** | |
| 11/12/99 | MW-502S | **1500** | |
| 11/21/02 | MW-502S | **1000** | |
| 03/25/03 | MW-502S | **920** | |
| 06/25/03 | MW-502S | **1100** | |
| 09/24/03 | MW-502S | **1100** | |
| 12/11/03 | MW-502S | **670** | |
| 03/09/04 | MW-502S | **730** | |
| 06/04/04 | MW-502S | **390** | |
| 09/23/04 | MW-502S | **350** | |
| 12/09/04 | MW-502S | **290** | |
| 03/03/05 | MW-502S | **330** | |
| 06/03/05 | MW-502S | **340** | |
| 09/08/05 | MW-502S | **280** | |
| 03/07/06 | MW-502S | **300** | |
| 09/20/06 | MW-502S | **320** | |
| 03/08/07 | MW-502S | **23** | |
| 09/06/07 | MW-502S | **1.6** | |
| 03/19/08 | MW-502S | **25.9** | |
| 11/06/08 | MW-502S | **4.9** | |
| 03/10/09 | MW-502S | **11.1** | |
| 09/09/09 | MW-502S | **13.3** | |
| 03/10/10 | MW-502S | **7.4** | |

All results in micrograms per liter (ug/L) (parts per billion)

Q - Qualifiers
D - Concentration reported at dilution
GWQS - New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
ND - Not detected.
U - The compound was not detected at the indicated concentration
* - Represents the highest concentration of the bags sampled on that date.
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

**TABLE 5**
**HISTORICAL TCE CONCENTRATIONS IN GROUND WATER**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 08/11/93 | MW-505S | ND | |
| 10/19/93 | MW-505S | ND | |
| 04/26/94 | MW-505S | ND | |
| 11/08/94 | MW-505S | ND | |
| 05/31/95 | MW-505S | ND | |
| 04/02/96 | MW-505S | **1.1** | |
| 09/23/97 | MW-505S | ND | |
| 09/24/98 | MW-505S | ND | |
| 11/09/99 | MW-505S | ND | |
| 11/20/02 | MW-505S | ND | |
| 03/25/03 | MW-505S | ND | |
| 03/25/04 | MW-505S | ND | |
| 03/03/05 | MW-505S | ND | |
| 03/07/06 | MW-505S | ND | |
| 03/08/07 | MW-505S | ND | |
| 03/19/08 | MW-505S | ND | |
| 03/10/09 | MW-505S | ND | |
| 3/9/2010 | MW-505S | ND | |
| 08/11/93 | MW-505I | ND | |
| 10/19/93 | MW-505I | ND | |
| 04/26/94 | MW-505I | ND | |
| 11/08/94 | MW-505I | ND | |
| 05/31/95 | MW-505I | ND | |
| 04/02/96 | MW-505I | 0.1 | J |
| 09/23/97 | MW-505I | ND | |
| 09/24/98 | MW-505I | ND | |
| 11/09/99 | MW-505I | ND | |
| 11/20/02 | MW-505I | ND | |
| 03/25/03 | MW-505I | ND | |
| 03/25/04 | MW-505I | ND | |
| 03/03/05 | MW-505I | ND | |
| 03/07/06 | MW-505I | ND | |
| 03/22/07 | MW-505I | ND | |
| 03/19/08 | MW-505I | ND | |
| 03/10/09 | MW-505I | ND | |
| 3/9/2010 | MW-505I | ND | |

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 08/11/93 | MW-506S | **18** | |
| 10/20/93 | MW-506S | **48** | J |
| 04/26/94 | MW-506S | **18** | |
| 11/11/94 | MW-506S | **19** | |
| 06/01/95 | MW-506S | **40.4** | |
| 04/01/96 | MW-506S | **25** | J |
| 09/25/97 | MW-506S | **34** | |
| 04/30/98 | MW-506S | **27** | * |
| 09/24/98 | MW-506S | **32** | |
| 11/08/99 | MW-506S | **50** | |
| 11/19/02 | MW-506S | **74** | |
| 03/24/03 | MW-506S | **24** | |
| 06/25/03 | MW-506S | **12** | |
| 09/23/03 | MW-506S | **14** | |
| 12/10/03 | MW-506S | **15** | |
| 03/09/04 | MW-506S | **16** | |
| 06/04/04 | MW-506S | **13** | |
| 09/23/04 | MW-506S | **12** | |
| 12/09/04 | MW-506S | **15** | |
| 03/03/05 | MW-506S | **16** | |
| 06/03/05 | MW-506S | **14** | |
| 10/01/05 | MW-506S | **36** | |
| 03/07/06 | MW-506S | **12** | |
| 09/20/06 | MW-506S | **13** | |
| 03/08/07 | MW-506S | **7.6** | |
| 09/06/07 | MW-506S | **7.4** | |
| 03/19/08 | MW-506S | **7.1** | |
| 11/06/08 | MW-506S | **2.7** | |
| 03/11/09 | MW-506S | **1.9** | |
| 09/09/09 | MW-506S | **1.6** | |
| 3/9/2010 | MW-506S | **1.4** | |

All results in micrograms per liter (ug/L) (parts per billion)

Q - Qualifiers

D - Concentration reported at dilution

GWQS - New Jersey Groundwater Quality Standard

Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter

ND - Not detected.

U - The compound was not detected at the indicated concentration

* - Represents the highest concentration of the bags sampled on that date.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

**TABLE 5**
**HISTORICAL TCE CONCENTRATIONS IN GROUND WATER**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 08/11/93 | MW-506I | **1700** | |
| 10/19/93 | MW-506I | **1800** | |
| 04/26/94 | MW-506I | **1300** | * |
| 11/11/94 | MW-506I | **1990** | |
| 11/11/94 | MW-506I | **2020** | |
| 06/01/95 | MW-506I | **1650** | |
| 06/01/95 | MW-506I | **1690** | |
| 04/01/96 | MW-506I | **1800** | DJ |
| 09/25/97 | MW-506I | **1600** | |
| 09/25/97 | MW-506I | **1700** | |
| 04/30/98 | MW-506I | **1400** | |
| 09/24/98 | MW-506I | **1400** | |
| 11/08/99 | MW-506I | **1700** | |
| 11/19/02 | MW-506I | **1000** | |
| 03/24/03 | MW-506I | **850** | |
| 06/25/03 | MW-506I | **1000** | |
| 09/23/03 | MW-506I | **960** | |
| 12/10/03 | MW-506I | **830** | |
| 03/09/04 | MW-506I | **940** | |
| 06/04/04 | MW-506I | **710** | |
| 09/23/04 | MW-506I | **1300** | |
| 12/09/04 | MW-506I | **710** | |
| 03/03/05 | MW-506I | **650** | |
| 06/03/05 | MW-506I | **730** | |
| 09/08/05 | MW-506I | **620** | |
| 03/17/06 | MW-506I | **700** | |
| 09/20/06 | MW-506I | **860** | |
| 03/08/07 | MW-506I | **420** | |
| 09/06/07 | MW-506I | **380** | |
| 06/02/08 | MW-506I | **139** | |
| 11/06/08 | MW-506I | **1.8** | |
| 03/11/09 | MW-506I | **2.5** | |
| 9/8/2009 | MW-506I | **1.5** | |
| 3/9/2010 | MW-506I | **1.5** | |

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 08/13/93 | MW-507S | **130** | |
| 10/21/93 | MW-507S | **100** | |
| 05/02/94 | MW-507S | **79** | |
| 11/11/94 | MW-507S | **145** | |
| 06/02/95 | MW-507S | **115** | |
| 04/01/96 | MW-507S | **70** | DJ |
| 09/26/97 | MW-507S | **80** | |
| 05/02/98 | MW-507S | **64** | |
| 09/26/98 | MW-507S | **43** | |
| 11/11/99 | MW-507S | **93** | |
| 11/21/02 | MW-507S | **45** | |
| 03/26/03 | MW-507S | **20** | |
| 03/25/04 | MW-507S | **16** | |
| 03/04/05 | MW-507S | **20** | |
| 03/07/06 | MW-507S | **19** | |
| 03/08/07 | MW-507S | **7.9** | |
| 03/19/08 | MW-507S | **14.7** | |
| 03/11/09 | MW-507S | **1.9** | |
| 03/10/10 | MW-507S | **2.1** | |
| 10/21/93 | MW-507I | **730** | |
| 04/27/94 | MW-507I | **1200** | |
| 11/11/94 | MW-507I | **1210** | |
| 06/01/95 | MW-507I | **1100** | |
| 04/01/96 | MW-507I | **930** | DJ |
| 09/26/97 | MW-507I | **1200** | |
| 05/02/98 | MW-507I | **1100** | |
| 05/02/98 | MW-507I | **1100** | |
| 09/26/98 | MW-507I | **1200** | |
| 11/11/99 | MW-507I | **970** | |
| 11/21/02 | MW-507I | **140** | |
| 03/26/03 | MW-507I | **630** | |
| 06/25/03 | MW-507I | **770** | |
| 09/23/03 | MW-507I | **860** | |
| 12/11/03 | MW-507I | **740** | |
| 03/09/04 | MW-507I | **690** | |
| 06/04/04 | MW-507I | **450** | |
| 09/23/04 | MW-507I | **1100** | |
| 12/09/04 | MW-507I | **610** | |
| 03/04/05 | MW-507I | **540** | |
| 06/03/05 | MW-507I | **570** | |
| 09/08/05 | MW-507I | **600** | |
| 03/07/06 | MW-507I | **600** | |
| 03/22/07 | MW-507I | **300** | |
| 09/06/07 | MW-507I | **470** | |
| 09/06/07 | MW-507I | **174** | |
| 11/06/08 | MW-507I | **417** | |
| 03/11/09 | MW-507I | **47.9** | |
| 03/10/10 | MW-507I | **2.1** | |

All results in micrograms per liter (ug/L) (parts per billion)

Q - Qualifiers

D - Concentration reported at dilution

GWQS - New Jersey Groundwater Quality Standard

Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter

ND - Not detected.

U - The compound was not detected at the indicated concentration

* - Represents the highest concentration of the bags sampled on that date.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

**TABLE 5**
**HISTORICAL TCE CONCENTRATIONS IN GROUND WATER**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 08/13/93 | MW-508S | **960** | |
| 10/25/93 | MW-508S | **860** | |
| 04/29/94 | MW-508S | **640** | J* |
| 11/11/94 | MW-508S | **1120** | |
| 06/02/95 | MW-508S | **943** | |
| 04/02/96 | MW-508S | **1600** | J |
| 09/26/97 | MW-508S | **320** | |
| 05/02/98 | MW-508S | **360** | |
| 09/25/98 | MW-508S | **210** | |
| 11/11/99 | MW-508S | **670** | |
| 11/21/02 | MW-508S | **120** | |
| 03/26/03 | MW-508S | **73** | |
| 06/25/03 | MW-508S | **58** | |
| 09/23/03 | MW-508S | **69** | |
| 12/11/03 | MW-508S | **40** | |
| 03/09/04 | MW-508S | **41** | |
| 06/04/04 | MW-508S | **32** | |
| 09/23/04 | MW-508S | **30** | |
| 12/09/04 | MW-508S | **31** | |
| 03/04/05 | MW-508S | **26** | |
| 06/03/05 | MW-508S | **40** | |
| 09/08/05 | MW-508S | **40** | |
| 03/07/06 | MW-508S | **31** | |
| 09/20/06 | MW-508S | **34** | |
| 03/08/07 | MW-508S | **27** | |
| 09/06/07 | MW-508S | **28** | |
| 03/19/08 | MW-508S | **21.6** | |
| 11/06/08 | MW-508S | **27.7** | |
| 03/11/09 | MW-508S | **16.7** | |
| 09/09/09 | MW-508S | **4.8** | |
| 03/10/10 | MW-508S | **1.5** | |
| 10/25/93 | MW-508D | **30** | |
| 05/02/94 | MW-508D | **35** | |
| 11/12/94 | MW-508D | **36.8** | |
| 06/03/95 | MW-508D | **38.4** | |
| 04/02/96 | MW-508D | **32** | J |
| 04/02/96 | MW-508D | **38** | J |
| 09/26/97 | MW-508D | **35** | |
| 05/02/98 | MW-508D | **34** | |
| 09/25/98 | MW-508D | **33** | |
| 11/11/99 | MW-508D | **34** | |
| 11/21/02 | MW-508D | **13** | |
| 03/26/03 | MW-508D | **30** | |
| 03/25/04 | MW-508D | **35** | |
| 03/04/05 | MW-508D | **1.2** | |
| 03/07/06 | MW-508D | 0.5 | |
| 03/08/07 | MW-508D | **2.3** | |
| 03/19/08 | MW-508D | **9.3** | |
| 03/11/09 | MW-508D | **4.5** | |
| 03/10/10 | MW-508D | 1.0 | |

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 11/28/95 | MW-532D | **30** | |
| 01/16/96 | MW-532D | **31** | |
| 03/28/96 | MW-532D | **18** | |
| 09/23/97 | MW-532D | **39** | |
| 04/28/98 | MW-532D | **34** | |
| 09/22/98 | MW-532D | **30** | |
| 11/10/99 | MW-532D | **32** | |
| 11/20/02 | MW-532D | **37** | |
| 03/27/03 | MW-532D | **26** | |
| 03/25/04 | MW-532D | **33** | |
| 03/03/05 | MW-532D | **37** | |
| 03/07/06 | MW-532D | **40** | |
| 03/08/07 | MW-532D | **29** | |
| 03/19/08 | MW-532D | **33.0** | |
| 03/10/09 | MW-532D | **31.3** | |
| 3/9/2010 | MW-532D | **11.4** | |
| 11/09/99 | MW-544S | **4.9** | |
| 11/18/02 | MW-544S | **1.7** | |
| 03/24/03 | MW-544S | 0.4 | |
| 09/23/03 | MW-544S | **1.3** | |
| 03/09/04 | MW-544S | **1.8** | |
| 09/24/04 | MW-544S | **1.3** | |
| 03/03/05 | MW-544S | **1.8** | |
| 09/08/05 | MW-544S | **1.2** | |
| 03/07/06 | MW-544S | **1.5** | |
| 09/20/06 | MW-544S | **1.1** | |
| 03/08/07 | MW-544S | 0.7 | |
| 09/06/07 | MW-544S | **1.6** | |
| 03/19/08 | MW-544S | ND | |
| 11/06/08 | MW-544S | **1.1** | |
| 03/10/09 | MW-544S | **2.1** | |
| 9/8/2009 | MW-544S | 0.89 | J |
| 03/10/10 | MW-544S | ND | |
| 11/09/99 | MW-544I | 0.4 | |
| 11/18/02 | MW-544I | 0.5 | |
| 03/24/03 | MW-544I | 0.8 | |
| 09/23/03 | MW-544I | 0.6 | |
| 03/09/04 | MW-544I | 0.8 | |
| 09/24/04 | MW-544I | 0.6 | |
| 03/03/05 | MW-544I | ND | |
| 09/08/05 | MW-544I | ND | |
| 03/07/06 | MW-544I | 0.6 | |
| 09/20/06 | MW-544I | 0.8 | |
| 03/08/07 | MW-544I | 0.7 | |
| 09/06/07 | MW-544I | 0.7 | |
| 03/19/08 | MW-544I | 0.79 | J |
| 11/06/08 | MW-544I | 0.87 | J |
| 03/10/09 | MW-544I | 0.70 | |
| 9/8/2009 | MW-544I | 0.77 | J |
| 03/10/10 | MW-544I | 0.72 | J |

All results in micrograms per liter (ug/L) (parts per billion)

Q - Qualifiers

D - Concentration reported at dilution

GWQS - New Jersey Groundwater Quality Standard

Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter

ND - Not detected.

U - The compound was not detected at the indicated concentration

* - Represents the highest concentration of the bags sampled on that date.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

**TABLE 5**
**HISTORICAL TCE CONCENTRATIONS IN GROUND WATER**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 11/09/99 | MW-544D | ND | |
| 11/18/02 | MW-544D | ND | |
| 03/24/03 | MW-544D | 0.5 | |
| 09/23/03 | MW-544D | 0.8 | * |
| 03/09/04 | MW-544D | ND | |
| 09/24/04 | MW-544D | ND | |
| 03/03/05 | MW-544D | ND | |
| 09/08/05 | MW-544D | ND | |
| 03/07/06 | MW-544D | ND | |
| 09/20/06 | MW-544D | 0.4 | |
| 03/08/07 | MW-544D | ND | |
| 09/06/07 | MW-544D | ND | |
| 03/19/08 | MW-544D | 0.35 | J |
| 11/06/08 | MW-544D | ND | |
| 03/10/09 | MW-544D | ND | |
| 9/8/2009 | MW-544D | 0.26 | J |
| 03/10/10 | MW-544D | 0.26 | J |
| 11/09/99 | MW-545S | ND | |
| 11/18/02 | MW-545S | ND | |
| 03/25/03 | MW-545S | ND | |
| 09/23/03 | MW-545S | ND | |
| 03/09/04 | MW-545S | ND | |
| 09/24/04 | MW-545S | ND | |
| 03/03/05 | MW-545S | ND | |
| 09/08/05 | MW-545S | ND | |
| 09/20/06 | MW-545S | ND | |
| 03/08/07 | MW-545S | ND | |
| 09/06/07 | MW-545S | ND | |
| 03/19/08 | MW-545S | ND | |
| 11/06/08 | MW-545S | ND | |
| 03/10/09 | MW-545S | ND | |
| 9/8/2009 | MW-545S | ND | |
| 03/10/10 | MW-545S | ND | |
| 11/09/99 | MW-545I | ND | |
| 11/18/02 | MW-545I | ND | |
| 03/25/03 | MW-545I | ND | |
| 09/23/03 | MW-545I | ND | |
| 03/09/04 | MW-545I | ND | |
| 09/24/04 | MW-545I | ND | |
| 03/03/05 | MW-545I | ND | |
| 09/08/05 | MW-545I | ND | |
| 09/20/06 | MW-545I | ND | |
| 03/08/07 | MW-545I | ND | |
| 09/06/07 | MW-545I | ND | |
| 03/19/08 | MW-545I | ND | |
| 11/06/08 | MW-545I | ND | |
| 03/10/09 | MW-545I | ND | |
| 9/8/2009 | MW-545I | ND | |
| 03/10/10 | MW-545I | ND | |

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 11/09/99 | MW-545D | ND | |
| 11/18/02 | MW-545D | 0.2 | |
| 03/25/03 | MW-545D | 0.4 | |
| 09/23/03 | MW-545D | ND | |
| 03/09/04 | MW-545D | ND | |
| 09/24/04 | MW-545D | ND | |
| 03/03/05 | MW-545D | ND | |
| 09/08/05 | MW-545D | ND | |
| 03/07/06 | MW-545D | ND | |
| 09/20/06 | MW-545D | 0.5 | |
| 03/08/07 | MW-545D | ND | |
| 09/06/07 | MW-545D | ND | |
| 03/19/08 | MW-545D | 0.32 | J |
| 11/06/08 | MW-545D | ND | |
| 03/10/09 | MW-545D | ND | |
| 9/8/2009 | MW-545D | 0.28 | J |
| 03/10/10 | MW-545D | ND | |
| 11/09/99 | MW-546D | **130** | |
| 11/19/02 | MW-546D | **120** | |
| 03/25/03 | MW-546D | **120** | |
| 06/25/03 | MW-546D | **150** | |
| 09/24/03 | MW-546D | **91** | |
| 12/11/03 | MW-546D | **88** | |
| 03/09/04 | MW-546D | **90** | |
| 06/04/04 | MW-546D | **82** | |
| 09/24/04 | MW-546D | **110** | |
| 12/09/04 | MW-546D | **110** | |
| 03/04/05 | MW-546D | **110** | |
| 06/03/05 | MW-546D | **120** | |
| 09/08/05 | MW-546D | **130** | |
| 09/20/06 | MW-546D | **120** | |
| 03/08/07 | MW-546D | **110** | |
| 09/06/07 | MW-546D | **120** | |
| 03/19/08 | MW-546D | **116** | |
| 11/06/08 | MW-546D | **100** | |
| 03/10/09 | MW-546D | **74.6** | |
| 9/9/2009 | MW-546D | **11.3** | |
| 03/10/10 | MW-546D | **25.9** | |

All results in micrograms per liter (ug/L) (parts per billion)

Q - Qualifiers
D - Concentration reported at dilution
GWQS - New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
ND - Not detected.
U - The compound was not detected at the indicated concentration
* - Represents the highest concentration of the bags sampled on that date.
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

**TABLE 5**
**HISTORICAL TCE CONCENTRATIONS IN GROUND WATER**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 11/21/02 | MW-549S | **1400** | |
| 03/26/03 | MW-549S | **1900** | |
| 06/25/03 | MW-549S | **2800** | |
| 09/24/03 | MW-549S | **2300** | |
| 12/10/03 | MW-549S | **1800** | |
| 03/09/04 | MW-549S | **1200** | |
| 06/04/04 | MW-549S | **1400** | |
| 09/23/04 | MW-549S | **1500** | |
| 12/09/04 | MW-549S | **1200** | |
| 03/03/05 | MW-549S | **1200** | |
| 06/03/05 | MW-549S | **650** | |
| 10/14/05 | MW-549S | **1300** | |
| 09/06/07 | MW-549S | **1000** | |
| 03/19/08 | MW-549S | **867** | |
| 11/06/08 | MW-549S | **767** | |
| 03/10/09 | MW-549S | **724** | |
| 9/8/2009 | MW-549S | **643** | |
| 03/09/10 | MW-549S | **385** | |
| 11/21/02 | MW-549I | **760** | |
| 03/26/03 | MW-549I | **760** | |
| 06/25/03 | MW-549I | **1200** | |
| 09/24/03 | MW-549I | **1100** | |
| 12/10/03 | MW-549I | **900** | |
| 03/09/04 | MW-549I | **1000** | |
| 06/04/04 | MW-549I | **880** | |
| 09/23/04 | MW-549I | **820** | |
| 12/09/04 | MW-549I | **850** | |
| 03/03/05 | MW-549I | **820** | |
| 06/03/05 | MW-549I | **98** | |
| 10/14/05 | MW-549I | **1100** | |
| 09/20/06 | MW-549I | **940** | |
| 03/08/07 | MW-549I | **870** | |
| 09/06/07 | MW-549I | **850** | |
| 03/19/08 | MW-549I | **801** | |
| 11/06/08 | MW-549I | **837** | |
| 03/10/09 | MW-549I | **714** | |
| 9/8/2009 | MW-549I | **781** | |
| 03/09/10 | MW-549I | **806** | |

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 11/21/02 | MW-550S | **77** | |
| 03/26/03 | MW-550S | **130** | |
| 06/25/03 | MW-550S | **180** | |
| 09/23/03 | MW-550S | **140** | |
| 12/10/03 | MW-550S | **150** | |
| 03/09/04 | MW-550S | **170** | |
| 06/04/04 | MW-550S | **140** | |
| 09/23/04 | MW-550S | **140** | |
| 12/09/04 | MW-550S | **130** | |
| 03/03/05 | MW-550S | **120** | |
| 06/03/05 | MW-550S | **140** | |
| 09/08/05 | MW-550S | **160** | |
| 09/20/06 | MW-550S | **110** | |
| 03/08/07 | MW-550S | **100** | |
| 09/06/07 | MW-550S | **110** | |
| 04/04/08 | MW-550S | **123** | |
| 11/06/08 | MW-550S | **58.9** | |
| 03/10/09 | MW-550S | **9.3** | |
| 09/09/09 | MW-550S | **2.5** | |
| 03/10/10 | MW-550S | **2.0** | |
| 11/21/02 | MW-550I | **440** | |
| 3/26/03 | MW-550I | **870** | |
| 9/23/03 | MW-550I | **800** | |
| 12/10/03 | MW-550I | **780** | |
| 3/9/04 | MW-550I | **750** | |
| 6/4/04 | MW-550I | **650** | |
| 9/23/04 | MW-550I | **1400** | |
| 12/9/04 | MW-550I | **720** | |
| 3/3/05 | MW-550I | **620** | |
| 6/3/05 | MW-550I | **760** | |
| 9/8/05 | MW-550I | **740** | |
| 9/20/06 | MW-550I | **860** | |
| 3/22/07 | MW-550I | **600** | |
| 09/06/07 | MW-550I | **650** | |
| 03/19/08 | MW-550I | **646** | |
| 11/06/08 | MW-550I | **560** | |
| 03/10/09 | MW-550I | **494** | |
| 09/09/09 | MW-550I | **76.0** | |
| 03/10/10 | MW-550I | **17.1** | |

All results in micrograms per liter (ug/L) (parts per billion)

Q - Qualifiers

D - Concentration reported at dilution

GWQS - New Jersey Groundwater Quality Standard

Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter

ND - Not detected.

U - The compound was not detected at the indicated concentration

* - Represents the highest concentration of the bags sampled on that date.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

**TABLE 5**
**HISTORICAL TCE CONCENTRATIONS IN GROUND WATER**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 11/10/94 | PZ-522S | **18.6** | |
| 12/13/94 | PZ-522S | **20.9** | |
| 03/31/96 | PZ-522S | **50** | |
| 09/27/97 | PZ-522S | **6.1** | |
| 05/01/98 | PZ-522S | **67** | |
| 09/27/98 | PZ-522S | **16** | |
| 11/10/99 | PZ-522S | **12** | |
| 11/19/02 | PZ-522S | **17** | |
| 03/25/03 | PZ-522S | **22** | |
| 09/23/03 | PZ-522S | **16** | |
| 03/09/04 | PZ-522S | 0.2 | U |
| 09/24/04 | PZ-522S | 0.4 | U |
| 03/03/05 | PZ-522S | **25** | |
| 09/08/05 | PZ-522S | 0.4 | U |
| 09/20/06 | PZ-522S | 0.5 | |
| 03/08/07 | PZ-522S | 0.4 | U |
| 09/06/07 | PZ-522S | 0.4 | U |
| 03/19/08 | PZ-522S | 0.20 | U |
| 11/06/08 | PZ-522S | 0.45 | U |
| 03/10/09 | PZ-522S | 0.45 | U |
| 9/8/2009 | PZ-522S | ND | |
| 03/10/10 | PZ-522S | ND | |
| 12/14/94 | PZ-522I | **157** | |
| 03/31/96 | PZ-522I | **230** | |
| 09/27/97 | PZ-522I | **190** | * |
| 05/01/98 | PZ-522I | **140** | |
| 09/27/98 | PZ-522I | **180** | |
| 11/10/99 | PZ-522I | **200** | |
| 11/19/02 | PZ-522I | **120** | |
| 03/25/03 | PZ-522I | **160** | |
| 09/23/03 | PZ-522I | **220** | |
| 03/09/04 | PZ-522I | **220** | |
| 09/24/04 | PZ-522I | **200** | |
| 03/03/05 | PZ-522I | **190** | |
| 09/08/05 | PZ-522I | **210** | |
| 09/20/06 | PZ-522I | **190** | |
| 03/08/07 | PZ-522I | **34** | |
| 09/06/07 | PZ-522I | **12** | |
| 03/19/08 | PZ-522I | **9.0** | |
| 11/06/08 | PZ-522I | **6.0** | |
| 03/10/09 | PZ-522I | **5.3** | |
| 9/8/2009 | PZ-522I | **5.2** | |
| 03/10/10 | PZ-522I | **5.1** | |

| Sample Date | Well # | TCE Concentration (ug/L) | Q |
|---|---|---|---|
| 11/10/94 | PZ-522D | **2.2** | |
| 12/14/94 | PZ-522D | **4.8** | |
| 03/31/96 | PZ-522D | 0.4 | J |
| 09/27/97 | PZ-522D | 0.8 | J |
| 05/01/98 | PZ-522D | 1.8 | |
| 09/26/98 | PZ-522D | **1.1** | |
| 11/10/99 | PZ-522D | 0.9 | |
| 11/19/02 | PZ-522D | **1.6** | |
| 03/25/03 | PZ-522D | **14** | |
| 09/23/03 | PZ-522D | **3.8** | |
| 03/09/04 | PZ-522D | **3.0** | |
| 09/24/04 | PZ-522D | **3.6** | |
| 03/03/05 | PZ-522D | **3.3** | |
| 09/08/05 | PZ-522D | **3.0** | |
| 03/08/07 | PZ-522D | **2.2** | |
| 09/06/07 | PZ-522D | **3.1** | |
| 03/19/08 | PZ-522D | **2.4** | |
| 11/06/08 | PZ-522D | **3.0** | |
| 03/10/09 | PZ-522D | **2.2** | |
| 9/8/2009 | PZ-522D | **2.2** | |
| 03/10/10 | PZ-522D | **2.8** | |

All results in micrograms per liter (ug/L) (parts per billion)

Q - Qualifiers
D - Concentration reported at dilution
GWQS - New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
ND - Not detected.
U - The compound was not detected at the indicated concentration
* - Represents the highest concentration of the bags sampled on that date.
J - Data indicates the presence of a compound that meets the identification criteria.

**Table 6**
**Comparison of Trichloroethene (TCE) Concentrations Prior to and Following Activation of Ground Water Extraction System**
**Former Lockheed Electronics Corporation Facility - Watchung, New Jersey**

***Wells Screening Shallow Zone (From Water Table to 50 Feet Above Mean Sea Level)***

| Well Designation | Depth (feet) | Approximate Screened Interval (feet below surface) | Approximate Screened Interval Elevation (ft.msl) | 1999 TCE Concentration (µg/L) | Sept. 2009 TCE Concentration (µg/L) | Approximate Percent Reduction |
|---|---|---|---|---|---|---|
| MW-502 S | 18 | 8 to 18 | 96 to 86 | 1,500 | 13.3 | 99% |
| MW-506 S | 24.6 | 14.6 to 24.6 | 107 to 97 | 50 | 1.6 | 97% |
| MW-508 S | 67.7 | 57.7 to 67.7 | 129 to 119 | 670 | 4.8 | 99% |
| MW-544 S | 23 | 3 to 23 | 83 to 63 | 4.9 | <GWQS | 82% |
| MW-545 S | 35 | 15 to 35 | 71 to 51 | ND | ND | N/A |
| MW-549S | 110 | 90 to 110 | 90 to 70 | 2,800* | 643 | 77% |
| MW-550 S | 50 | 30 to 50 | 102 to 82 | 180* | 2.5 | 99% |
| PZ-522 S | 17.7 | 7.7 to 17.7 | 86 to 76 | 12 | ND | 100% |

***Wells Screening Intermediate Zone (From 50 Feet Above Mean Sea Level to 50 Feet Below Sea Level)***

| Well Designation | Depth (feet) | Approximate Screened Interval (feet below surface) | Approximate Screened Interval Elevation (ft.msl) | 1999 TCE Concentration (µg/L) | Sept. 2009 TCE Concentration (µg/L) | Approximate Percent Reduction |
|---|---|---|---|---|---|---|
| MW-502 I | 74.7 | 64.7 to 74.7 | 39 to 29 | 5.9 | <GWQS | >99% |
| MW-506 I | 99 | 89 to 99 | 34 to 24 | 1,700 | 1.5 | >99% |
| MW-507 I | 152 | 142 to 152 | 35 to 25 | 970 | 3.1 | >99% |
| MW-544 I | 100 | 80 to 100 | 6 to -14 | <GWQS | <GWQS | N/A |
| MW-545 I | 93 | 73 to 93 | 13 to -7 | ND | ND | N/A |
| MW-549 I | 210 | 190 to 210 | -11 to -31 | 1200* | 781 | 35% |
| MW-550 I | 100 | 80 to 100 | 53 to 33 | 870** | 76.0 | 91% |
| PZ-522 I | 101 | 91 to 101 | 3 to -7 | 200 | 5.2 | 97% |

***Wells Screening Deep Zone (Deeper Than 50 Feet Below Sea Level)***

| Well Designation | Depth (feet) | Approximate Screened Interval (feet below surface) | Approximate Screened Interval Elevation (ft.msl) | 1999 TCE Concentration (µg/L) | Sept. 2009 TCE Concentration (µg/L) | Approximate Percent Reduction |
|---|---|---|---|---|---|---|
| MW-532 D | 263 | 253 to 263 | -66 to -76 | 32 | 11.4*** | 64% |
| MW-544 D | 200 | 180 to 200 | -94 to -114 | ND | <GWQS | N/A |
| MW-545 D | 200 | 180 to 200 | -94 to -114 | ND | <GWQS | N/A |
| MW-546 D | 200 | 180 to 200 | -73 to -93 | 130 | 11.3 | 91% |
| PZ-522 D | 197.7 | 187.7 to 197.7 | -94 to -104 | <GWQS | 2.2 | 0% |

**Green** percentages Indicate >50% reduction in dissolved TCE Concentrations, or that GWQS is not exceeded.
**Yellow** percentages indicate 25% to 50% reduction in dissolved TCE concentrations.
**Red** percentages indicate <25% reduction in dissolved TCE concentrations.

GWQS = New Jersey Department of Environmental Protection Ground Water Quality Standard (1µg/L)
µg/L = milligrams per liter (parts per billion)
ND = Not Detected; N/A = Not Applicable
ft. msl = feet above mean sea level

Except where otherwise noted, 1999 data from samples collected in November 1999, and reported in TRC's February 2009 Remedial Investigation Addendum Report and Off-Site Ground Water Investigation.

* = June 2003 Data
** = March 2003 Data
*** = March 2010 Data (Sept. 2009 data not available)

**TABLE 7**
**SURFACE WATER ANALYTICAL RESULTS**
**MARCH 2008 THROUGH SEPTEMBER 2009**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| **Sample ID** | **New Jersey** | SW-1 | SW-2 | SW-3 | SW-4 | SW-1 | SW-2 | SW-3 | SW-4 |
|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample Number** | **Fresh Water - 2** | JA27535-3 | JA27535-16 | JA27535-15 | JA27535-14 | JA41514-4 | JA41514-3 | JA41514-2 | JA41514-1 |
| **Sampling Date** | **Quality** | 09/08/09 | 09/09/09 | 09/09/09 | 09/09/09 | 03/09/10 | 03/09/10 | 03/09/10 | 03/09/10 |
| **Matrix** | **Criteria** | WATER | WATER | WATER | WATER | WATER | WATER | WATER | WATER |
| **Units** | **ug/L** | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| VOLATILE COMPOUNDS (GC/MS) | | | | | | | | | |
| Benzene | *0.15* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U |
| Bromodichloromethane | *0.55* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Bromoform | *4.3* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| Bromomethane | *– –* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| Carbon Tetrachloride | *0.33* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Chlorobenzene | *210* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Chloroethane | *– –* | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U | 0.48 U |
| 2-Chloroethyl Vinyl Ether | *– –* | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U | 0.65 U |
| Chloroform | *68* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Chloromethane | *– –* | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U | 0.34 U |
| Dibromochloromethane | *0.40* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| 1,1-Dichloroethane | *– –* | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| 1,2-Dichloroethane | *0.29* | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U | 0.43 U |
| 1,1-Dichloroethene | *4.7* | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U |
| cis-1,2-Dichloroethene | *– –* | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U | 0.22 U |
| trans-1,2-Dichloroethene | *590* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| 1,2-Dichloropropane | *0.50* | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U |
| cis-1,3-Dichloropropene | *0.34* | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| trans-1,3-Dichloropropene | *0.34* | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U |
| Ethylbenzene | *530* | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.15 U | 0.39 J | 0.15 U |
| Methylene Chloride | *– –* | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U |
| 1,1,2,2-Tetrachloroethane | *4.7* | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U | 0.13 U |
| Tetrachloroethene | *0.34* | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U | 0.18 U |
| Toluene | *1300* | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 2.1 | 0.19 U |
| 1,1,1-Trichloroethane | *120* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| 1,1,2-Trichloroethane | *13* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| Trichloroethene | *1.0* | 0.14 U | 0.68 J | 0.33 J | 0.14 U | 0.14 U | 0.31 J | 0.18 J | 0.17 J |
| Trichlorofluoromethane | *– –* | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U | 0.46 U |
| Vinyl Chloride | *0.082* | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| Xylene (Total) | *– –* | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U | 0.27 U |
| Total Confident Conc. VOCs | | ND | 0.68 J | 0.33 J | ND | ND | 0.31 J | 2.67 | 0.17 J |
| Total Estimated Conc. VOC TICs | | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
ug/L - micrograms/Liter
U - compound not detected at indicated concentration
– – = No applicable criteria
VOCs - Volatile Organic Compounds
TICs - Tenetatively Identified Compounds
Bold - indicates exceedence of New Jersey FWQC

**TABLE 8**
**HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Location | Sample Date | Analyte | Concentration (µg/L) | Qualifiers |
|---|---|---|---|---|
| SW-1 | May-94 | Trichloroethene | 0.5 | |
| SW-1 | Jun-94 | Trichloroethene | 0.81 | |
| SW-1 | Jun-94 | Trichloroethene | 0.88 | |
| SW-1 | Jul-94 | Trichloroethene | 0.29 | J |
| SW-1 | Aug-94 | Trichloroethene | 0.12 | J |
| SW-1 | Feb-95 | Trichloroethene | 0.84 | |
| SW-1 | Apr-96 | Trichloroethene | 0.6 | |
| SW-1 | Apr-98 | Trichloroethene | 0.9 | |
| SW-1 | Nov-99 | Trichloroethene | 0.4 | |
| SW-1 | Dec-02 | Trichloroethene | 0.1 | |
| SW-1 | Mar-03 | Trichloroethene | 0.1 | |
| SW-1 | Jul-03 | Trichloroethene | 0.7 | |
| SW-1 | Aug-03 | Trichloroethene | 0.2 | U |
| SW-1 | Sep-03 | Trichloroethene | 0.3 | U |
| SW-1 | Oct-03 | Trichloroethene | 0.2 | U |
| SW-1 | Nov-03 | Trichloroethene | 0.2 | U |
| SW-1 | Dec-03 | Trichloroethene | 0.2 | U |
| SW-1 | Jan-04 | Trichloroethene | 0.2 | U |
| SW-1 | Feb-04 | Trichloroethene | 0.2 | U |
| SW-1 | Mar-04 | Trichloroethene | 0.2 | U |
| SW-1 | Apr-04 | Trichloroethene | 0.2 | U |
| SW-1 | May-04 | Trichloroethene | 0.2 | U |
| SW-1 | Jun-04 | Trichloroethene | 0.2 | U |
| SW-1 | Jul-04 | Trichloroethene | 0.4 | U |
| SW-1 | Aug-04 | Trichloroethene | 0.4 | U |
| SW-1 | Sep-04 | Trichloroethene | 0.4 | U |
| SW-1 | Oct-04 | Trichloroethene | 0.4 | U |
| SW-1 | Nov-04 | Trichloroethene | 0.4 | U |
| SW-1 | Dec-04 | Trichloroethene | 0.4 | U |
| SW-1 | Jan-05 | Trichloroethene | 0.4 | U |
| SW-1 | Feb-05 | Trichloroethene | 0.4 | U |
| SW-1 | Mar-05 | Trichloroethene | 0.4 | U |
| SW-1 | Apr-05 | Trichloroethene | 0.4 | U |
| SW-1 | May-05 | Trichloroethene | 0.4 | U |
| SW-1 | Jun-05 | Trichloroethene | 0.4 | U |
| SW-1 | Jul-05 | Trichloroethene | 0.4 | U |
| SW-1 | Oct-05 | Trichloroethene | 0.4 | U |
| SW-1 | Nov-05 | Trichloroethene | 0.4 | U |
| SW-1 | Mar-06 | Trichloroethene | 0.4 | U |
| SW-1 | Sep-06 | Trichloroethene | 0.4 | U |
| SW-1 | Mar-07 | Trichloroethene | 0.4 | U |
| SW-1 | Sep-07 | Trichloroethene | 0.4 | U |
| SW-1 | Mar-08 | Trichloroethene | 0.42 | J |
| SW-1 | Nov-08 | Trichloroethene | 0.45 | U |
| SW-1 | Mar-09 | Trichloroethene | 1.5 | |
| SW-1 | Sep-09 | Trichloroethene | 0.14 | U |
| SW-1 | Mar-10 | Trichloroethene | 0.14 | U |

All results in micrograms per liter (ug/L) (parts per billion)

U The compound was not detected above method detection limit

J Data indicates the presence of a compound detected at less than the quantitation limit. The value is approximate.

D Concentration was reported from a diluted analysis. The value is approximate.

**TABLE 8**
**HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Location | Sample Date | Analyte | Concentration (µg/L) | Qualifiers |
|---|---|---|---|---|
| SW-2 | Aug-93 | Trichloroethene | 39 | |
| SW-2 | Aug-93 | Trichloroethene | 41 | |
| SW-2 | Oct-93 | Trichloroethene | 160 | |
| SW-2 | May-94 | Trichloroethene | 72 | |
| SW-2 | Jun-94 | Trichloroethene | 55 | |
| SW-2 | Jun-94 | Trichloroethene | 59 | |
| SW-2 | Jun-94 | Trichloroethene | 63 | |
| SW-2 | Jul-94 | Trichloroethene | 53 | |
| SW-2 | Jul-94 | Trichloroethene | 42 | |
| SW-2 | Aug-94 | Trichloroethene | 69 | D |
| SW-2 | Oct-94 | Trichloroethene | 47 | |
| SW-2 | Nov-94 | Trichloroethene | 71.2 | J |
| SW-2 | Dec-94 | Trichloroethene | 75.5 | |
| SW-2 | Jan-95 | Trichloroethene | 42 | |
| SW-2 | Feb-95 | Trichloroethene | 81.1 | |
| SW-2 | Apr-95 | Trichloroethene | 108 | |
| SW-2 | Jun-95 | Trichloroethene | 67.7 | |
| SW-2 | Jun-95 | Trichloroethene | 70.9 | |
| SW-2 | Jun-95 | Trichloroethene | 98.7 | |
| SW-2 | Aug-95 | Trichloroethene | 127 | |
| SW-2 | Apr-96 | Trichloroethene | 26 | |
| SW-2 | Apr-96 | Trichloroethene | 27 | |
| SW-2 | Sep-97 | Trichloroethene | 36.8 | |
| SW-2 | Sep-97 | Trichloroethene | 41.9 | |
| SW-2 | Apr-98 | Trichloroethene | 45.4 | |
| SW-2 | Apr-98 | Trichloroethene | 48 | |
| SW-2 | Sep-98 | Trichloroethene | 68.7 | |
| SW-2 | Nov-99 | Trichloroethene | 80.1 | |
| SW-2 | Mar-00 | Trichloroethene | 80 | |
| SW-2 | Dec-02 | Trichloroethene | 57 | |
| SW-2 | Mar-03 | Trichloroethene | 33 | |
| SW-2 | Jul-03 | Trichloroethene | 3.6 | |
| SW-2 | Aug-03 | Trichloroethene | 2.2 | |
| SW-2 | Sep-03 | Trichloroethene | 0.3 | U |
| SW-2 | Oct-03 | Trichloroethene | 0.2 | U |
| SW-2 | Nov-03 | Trichloroethene | 0.2 | U |
| SW-2 | Dec-03 | Trichloroethene | 0.2 | U |
| SW-2 | Jan-04 | Trichloroethene | 2.1 | |
| SW-2 | Feb-04 | Trichloroethene | 1.4 | |
| SW-2 | Mar-04 | Trichloroethene | 0.2 | U |
| SW-2 | Apr-04 | Trichloroethene | 0.4 | |
| SW-2 | May-04 | Trichloroethene | 2.2 | |
| SW-2 | Jun-04 | Trichloroethene | 0.2 | U |
| SW-2 | Jul-04 | Trichloroethene | 0.4 | U |
| SW-2 | Aug-04 | Trichloroethene | 0.6 | |
| SW-2 | Sep-04 | Trichloroethene | 0.4 | U |
| SW-2 | Oct-04 | Trichloroethene | 1.7 | |
| SW-2 | Nov-04 | Trichloroethene | 0.4 | U |
| SW-2 | Dec-04 | Trichloroethene | 0.5 | |
| SW-2 | Jan-05 | Trichloroethene | 0.5 | |
| SW-2 | Feb-05 | Trichloroethene | 0.8 | |
| SW-2 | Mar-05 | Trichloroethene | 2.6 | |
| SW-2 | Apr-05 | Trichloroethene | 0.8 | |
| SW-2 | May-05 | Trichloroethene | 0.4 | U |
| SW-2 | Jun-05 | Trichloroethene | 0.5 | |
| SW-2 | Jul-05 | Trichloroethene | 0.4 | U |
| SW-2 | Aug-05 | Trichloroethene | 0.4 | U |
| SW-2 | Sep-05 | Trichloroethene | 0.4 | U |
| SW-2 | Oct-05 | Trichloroethene | 0.4 | U |
| SW-2 | Nov-05 | Trichloroethene | 0.4 | U |
| SW-2 | Mar-06 | Trichloroethene | 1.2 | |
| SW-2 | Sep-06 | Trichloroethene | 0.6 | |
| SW-2 | Mar-07 | Trichloroethene | 0.4 | U |
| SW-2 | Sep-07 | Trichloroethene | 1.1 | |
| SW-2 | Mar-08 | Trichloroethene | 0.77 | J |
| SW-2 | Nov-08 | Trichloroethene | 1.0 | |
| SW-2 | Mar-09 | Trichloroethene | 0.45 | U |
| SW-2 | Sep-09 | Trichloroethene | 0.68 | J |
| SW-2 | Mar-10 | Trichloroethene | 0.31 | J |

All results in micrograms per liter (ug/L) (parts per billion)

U The compound was not detected above method detection limit

J Data indicates the presence of a compound detected at less than the quantitation limit. The value is approximate.

D Concentration was reported from a diluted analysis. The value is approximate.

**TABLE 8**
**HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Location | Sample Date | Analyte | Concentration (µg/L) | Qualifiers |
|---|---|---|---|---|
| SW-3 | Jun-94 | Trichloroethene | 34.00 | |
| SW-3 | Jun-94 | Trichloroethene | 36.00 | |
| SW-3 | Jul-94 | Trichloroethene | 29.00 | |
| SW-3 | Jul-94 | Trichloroethene | 26.00 | |
| SW-3 | Aug-94 | Trichloroethene | 32.00 | |
| SW-3 | Oct-94 | Trichloroethene | 14.5 | |
| SW-3 | Nov-94 | Trichloroethene | 26.6 | J |
| SW-3 | Dec-94 | Trichloroethene | 48.4 | |
| SW-3 | Jan-95 | Trichloroethene | 31.7 | |
| SW-3 | Feb-95 | Trichloroethene | 63.2 | |
| SW-3 | Apr-95 | Trichloroethene | 48 | |
| SW-3 | Apr-95 | Trichloroethene | 51.4 | |
| SW-3 | Jun-95 | Trichloroethene | 29 | |
| SW-3 | Jun-95 | Trichloroethene | 7.51 | |
| SW-3 | Aug-95 | Trichloroethene | 32 | |
| SW-3 | Apr-96 | Trichloroethene | 24 | |
| SW-3 | Sep-97 | Trichloroethene | 43.7 | |
| SW-3 | Apr-98 | Trichloroethene | 47 | |
| SW-3 | Sep-98 | Trichloroethene | 26.6 | |
| SW-3 | Sep-98 | Trichloroethene | 27.8 | |
| SW-3 | Nov-99 | Trichloroethene | 41.4 | |
| SW-3 | Mar-00 | Trichloroethene | 60 | |
| SW-3 | Dec-02 | Trichloroethene | 44 | |
| SW-3 | Mar-03 | Trichloroethene | 28 | |
| SW-3 | Jul-03 | Trichloroethene | 2.6 | |
| SW-3 | Aug-03 | Trichloroethene | 1.2 | |
| SW-3 | Sep-03 | Trichloroethene | 0.3 | U |
| SW-3 | Oct-03 | Trichloroethene | 0.2 | U |
| SW-3 | Nov-03 | Trichloroethene | 0.2 | U |
| SW-3 | Dec-03 | Trichloroethene | 0.2 | U |
| SW-3 | Jan-04 | Trichloroethene | 1.1 | |
| SW-3 | Feb-04 | Trichloroethene | 0.8 | |
| SW-3 | Mar-04 | Trichloroethene | 0.2 | U |
| SW-3 | Apr-04 | Trichloroethene | 0.3 | |
| SW-3 | May-04 | Trichloroethene | 1.2 | |
| SW-3 | Jun-04 | Trichloroethene | 0.2 | U |
| SW-3 | Jul-04 | Trichloroethene | 0.4 | U |
| SW-3 | Aug-04 | Trichloroethene | 0.4 | U |
| SW-3 | Sep-04 | Trichloroethene | 0.4 | U |
| SW-3 | Oct-04 | Trichloroethene | 0.7 | |
| SW-3 | Nov-04 | Trichloroethene | 0.4 | U |
| SW-3 | Dec-04 | Trichloroethene | 0.4 | U |
| SW-3 | Jan-05 | Trichloroethene | 0.4 | U |
| SW-3 | Feb-05 | Trichloroethene | 0.4 | |
| SW-3 | Mar-05 | Trichloroethene | 1.6 | |
| SW-3 | Apr-05 | Trichloroethene | 0.4 | U |
| SW-3 | May-05 | Trichloroethene | 0.4 | U |
| SW-3 | Jun-05 | Trichloroethene | 0.4 | U |
| SW-3 | Jul-05 | Trichloroethene | 0.4 | U |
| SW-3 | Aug-05 | Trichloroethene | 0.4 | U |
| SW-3 | Sep-05 | Trichloroethene | 0.4 | U |
| SW-3 | Oct-05 | Trichloroethene | 0.4 | U |
| SW-3 | Nov-05 | Trichloroethene | 0.4 | U |
| SW-3 | Mar-06 | Trichloroethene | 0.6 | |
| SW-3 | Sep-06 | Trichloroethene | 0.4 | U |
| SW-3 | Mar-07 | Trichloroethene | 0.4 | U |
| SW-3 | Sep-07 | Trichloroethene | 0.4 | |
| SW-3 | Mar-08 | Trichloroethene | 0.51 | J |
| SW-3 | Nov-08 | Trichloroethene | 0.59 | J |
| SW-3 | Mar-09 | Trichloroethene | 0.73 | J |
| SW-3 | Sep-09 | Trichloroethene | 0.33 | J |
| SW-3 | Mar-10 | Trichloroethene | 0.18 | J |

All results in micrograms per liter (ug/L) (parts per billion)

U The compound was not detected above method detection limit

J Data indicates the presence of a compound detected at less than the quantitation limit. The value is approximate.

D Concentration was reported from a diluted analysis. The value is approximate.

**TABLE 8**
**HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Location | Sample Date | Analyte | Concentration (µg/L) | Qualifiers |
|---|---|---|---|---|
| SW-4 | May-94 | Trichloroethene | 14 | |
| SW-4 | Jun-94 | Trichloroethene | 14 | |
| SW-4 | Jun-94 | Trichloroethene | 6.9 | |
| SW-4 | Jul-94 | Trichloroethene | 6.5 | |
| SW-4 | Jul-94 | Trichloroethene | 6.6 | |
| SW-4 | Jul-94 | Trichloroethene | 9.4 | |
| SW-4 | Aug-94 | Trichloroethene | 11 | |
| SW-4 | Oct-94 | Trichloroethene | 2.08 | |
| SW-4 | Nov-94 | Trichloroethene | 4.31 | J |
| SW-4 | Dec-94 | Trichloroethene | 19.5 | |
| SW-4 | Jan-95 | Trichloroethene | 16.1 | |
| SW-4 | Jan-95 | Trichloroethene | 17 | |
| SW-4 | Feb-95 | Trichloroethene | 53.7 | |
| SW-4 | Feb-95 | Trichloroethene | 54.4 | |
| SW-4 | Apr-95 | Trichloroethene | 19.3 | |
| SW-4 | Jun-95 | Trichloroethene | 6.29 | |
| SW-4 | Aug-95 | Trichloroethene | 2.62 | |
| SW-4 | Aug-95 | Trichloroethene | 2.83 | |
| SW-4 | Apr-96 | Trichloroethene | 16 | |
| SW-4 | Sep-97 | Trichloroethene | 3.9 | |
| SW-4 | Apr-98 | Trichloroethene | 30.4 | |
| SW-4 | Sep-98 | Trichloroethene | 1.4 | |
| SW-4 | Nov-99 | Trichloroethene | 19.2 | |
| SW-4 | Mar-00 | Trichloroethene | 36 | |
| SW-4 | Dec-02 | Trichloroethene | 30 | |
| SW-4 | Mar-03 | Trichloroethene | 18 | |
| SW-4 | Jul-03 | Trichloroethene | 1.7 | |
| SW-4 | Aug-03 | Trichloroethene | 0.2 | U |
| SW-4 | Sep-03 | Trichloroethene | 0.3 | U |
| SW-4 | Oct-03 | Trichloroethene | 0.2 | U |
| SW-4 | Nov-03 | Trichloroethene | 0.2 | U |
| SW-4 | Dec-03 | Trichloroethene | 0.2 | U |
| SW-4 | Jan-04 | Trichloroethene | 0.6 | |
| SW-4 | Feb-04 | Trichloroethene | 0.6 | |
| SW-4 | Mar-04 | Trichloroethene | 0.2 | U |
| SW-4 | Apr-04 | Trichloroethene | 0.2 | U |
| SW-4 | May-04 | Trichloroethene | 0.7 | |
| SW-4 | Jun-04 | Trichloroethene | 0.2 | U |
| SW-4 | Jul-04 | Trichloroethene | 0.4 | U |
| SW-4 | Aug-04 | Trichloroethene | 0.4 | U |
| SW-4 | Sep-04 | Trichloroethene | 0.4 | U |
| SW-4 | Oct-04 | Trichloroethene | 0.4 | |
| SW-4 | Nov-04 | Trichloroethene | 0.4 | U |
| SW-4 | Dec-04 | Trichloroethene | 0.4 | |
| SW-4 | Jan-05 | Trichloroethene | 0.4 | U |
| SW-4 | Feb-05 | Trichloroethene | 0.4 | U |
| SW-4 | Mar-05 | Trichloroethene | 1.1 | |
| SW-4 | Apr-05 | Trichloroethene | 0.4 | U |
| SW-4 | May-05 | Trichloroethene | 0.4 | U |
| SW-4 | Jun-05 | Trichloroethene | 0.4 | U |
| SW-4 | Jul-05 | Trichloroethene | 0.4 | U |
| SW-4 | Aug-05 | Trichloroethene | 0.4 | U |
| SW-4 | Sep-05 | Trichloroethene | 0.4 | U |
| SW-4 | Oct-05 | Trichloroethene | 0.4 | U |
| SW-4 | Nov-05 | Trichloroethene | 0.4 | U |
| SW-4 | Mar-06 | Trichloroethene | 0.4 | U |
| SW-4 | Sep-06 | Trichloroethene | 0.4 | U |
| SW-4 | Mar-07 | Trichloroethene | 0.4 | U |
| SW-4 | Sep-07 | Trichloroethene | 0.4 | U |
| SW-4 | Mar-08 | Trichloroethene | 0.28 | J |
| SW-4 | Nov-08 | Trichloroethene | 0.45 | U |
| SW-4 | Mar-09 | Trichloroethene | 0.49 | J |
| SW-4 | Sep-09 | Trichloroethene | 0.14 | U |
| SW-4 | Mar-10 | Trichloroethene | 0.17 | J |

All results in micrograms per liter (ug/L) (parts per billion)

U The compound was not detected above method detection limit

J Data indicates the presence of a compound detected at less than the quantitation limit. The value is approximate.

D Concentration was reported from a diluted analysis. The value is approximate.

**TABLE 9**
**SYSTEM PERFORMANCE SUMMARY**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| Sample Month | Influent TCE (ug/L) | Mid TCE (ug/L) | Effluent TCE (ug/L) | Average Pumping Rate (gpm) | Monthly Pumpage (MGM) | RW-1 Water Level (feet) |
|---|---|---|---|---|---|---|
| July 2003 | 62 | ND | ND | 133 | 2.31 | 43.8 |
| August 2003 | 470 | ND | ND | 128 | 5.53 | 44.9 |
| September 2003 | 62 | ND | ND | 128 | 5.51 | 44.6 |
| October 2003 | 470 | ND | ND | 123 | 5.31 | 41.8 |
| November 2003 | 510 | 58 | ND | 124 | 5.36 | 44.1 |
| December 2003 | 650 | 160 | ND | 138 | 5.97 | 50.3 |
| January 2004 | 430 | 310 | 1.2 | 139 | 6 | 51.5 |
| February 2004 | 450 | 460 | ND | 136 | 5.85 | 52.5 |
| March 2004 | 480 | 190 | 2.8 | 132 | 5.72 | 54 |
| April 2004 | 370 | 340 | 2.0 | 130 | 5.57 | 49.9 |
| May 2004 | 350 | 320 | 2.0 | 135 | 6.02 | 53.7 |
| June 2004 | 370 | 3.3 | 0.8 | 100 | 4.32 | 55.8 |
| July 2004 | 420 | 3.9 | 1.0 | 133 | 5.73 | 45.01 |
| August 2004 | 390 | 53 | 0.6 | 132 | 5.72 | 53.73 |
| September 2004 | 480 | 200 | 0.7 | 128 | 5.55 | 58.63 |
| October 2004 | 400 | 1.2 | 0.5 | 105 | 4.52 | 56.06 |
| November 2004 | 400 | 16 | 0.4 | 136 | 5.89 | 41.79 |
| December 2004 | 360 | 73 | 0.4 | 119 | 5.13 | 55.19 |
| January 2005 | 330 | 180 | 0.5 | 136 | 5.86 | 54.42 |
| February 2005 | 380 | 260 | ND | 125 | 5.40 | 47.06 |
| March 2005 | 370 | 47 | ND | 122 | 5.25 | 60.19 |
| April 2005 | 350 | 130 | 0.4 | 144 | 6.23 | 52.3 |
| May 2005 | 330 | 190 | ND | 128 | 5.52 | 60.8 |
| June 2005 | 360 | 1.8 | 0.5 | 118 | 5.10 | 62.6 |
| July 2005 | 360 | 5.1 | 0.5 | 129 | 5.58 | 61 |
| August 2005 | 270 | 76 | 0.6 | 127 | 5.47 | 66.3 |
| September 2005 | 240 | 120 | NS | 126 | 5.43 | 62.4 |
| October 2005 | 320 | 2.9 | 0.5 | 83 | 3.57 | 49.9 |
| November 2005 | 280 | 9 | NS | 127 | 5.47 | 58.9 |
| December 2005 | 280 | 67 | NS | 127 | 5.48 | 56.5 |
| January 2006 | 210 | 100 | NS | 126 | 5.46 | 60 |
| February 2006 | 180 | 1.6 | 1.0 | 120 | 5.17 | 58.8 |
| March 2006 | 260 | 4.1 | NS | 127 | 5.47 | 59.2 |
| April 2006 | 230 | 14 | 1.2 | 122 | 5.27 | 56.7 |
| May 2006 | 180 | 55 | NS | 129 | 5.59 | 64.9 |
| June 2006 | 200 | 120 | 1.4 | 125 | 5.41 | 59.3 |
| July 2006 | 180 | 180 | NS | 118 | 5.10 | 55 |
| August 2006 | 200 | 200 | NS | 95 | 4.11 | 56.2 |
| September 2006 | 150 | 27 | 1.5 | 103 | 4.46 | 58.4 |
| October 2006 | 170 | 44 | NS | 121 | 5.24 | 60.1 |
| November 2006 | 170 | 69 | NS | 125 | 5.39 | 58.4 |
| December 2006 | 120 | 86 | 1.5 | 123 | 5.30 | 61.8 |
| January 2007 | 85 | 110 | NS | 119 | 5.14 | 58.7 |
| February 2007 | 90 | 4.7 | NS | 120 | 5.17 | 66.8 |
| March 2007 | 60 | 4 | 1.7 | 104 | 4.49 | 57.5 |
| April 2007 | 74 | 17 | NS | 106 | 4.59 | 58.1 |
| May 2007 | 71 | 31 | NS | 123 | 5.32 | 59.4 |
| June 2007 | 56 | 37 | NS | 130 | 5.60 | 58.1 |
| July 2007 | 53 | 50 | 1.7 | 127 | 5.48 | 65.4 |
| August 2007 | 26 | 50 | NS | 125 | 5.42 | 65.6 |
| September 2007 | 29 | 43 | NS | 113 | 4.87 | 66.7 |
| October 2007 | 24 | 11 | 2.5 | 71 | 3.08 | 61.5 |
| November 2007 | 16 | 11 | NS | 87 | 3.76 | 64.7 |
| December 2007 | 16 | 13 | 1.3 | 128 | 5.54 | 66 |
| January 2008 | 12 | 13 | NS | 127 | 5.51 | 62.3 |
| February 2008 | 6.5 | 12 | NS | 129 | 5.57 | 57.4 |
| March 2008 | 5.5 | 12 | 1.4 | 88 | 3.78 | 63.5 |
| April 2008 | 4.1 | 11 | NS | 129 | 5.57 | 60.8 |
| May 2008 | 1.8 | 7.9 | NS | 128 | 5.55 | 65.0 |
| June 2008 | 8.9 | 0.9 | 1.4 | 128 | 5.52 | 64.2 |
| July 2008 | 1.4 | 8.3 | NS | 124 | 5.34 | 63.6 |
| August 2008 | 1.2 | 6.7 | NS | 118 | 5.11 | 64.1 |
| September 2008 | 1.1 | 6.2 | 1.6 | 118 | 5.12 | 63.4 |
| October 2008 | ND | 6.8 | NS | 126 | 5.43 | 68.7 |
| November 2008 | 1.4 | 6.3 | NS | 129 | 5.56 | 65.2 |
| December 2008 | 1.3 | 5.8 | 2.5 | 123 | 5.30 | 63.4 |
| January 2009 | 1.2 | 4.6 | NS | 128 | 5.51 | 69.6 |
| February 2009 | 1.4 | 5.9 | NS | 125 | 5.39 | 69.1 |
| March 2009 | 1.2 | 4.5 | 3.6 | 121 | 5.23 | 70.9 |
| April 2009 | 1.4 | 6.2 | NS | 118 | 5.09 | 66.7 |
| May 2009 | 1.0 | 4.9 | NS | 112 | 4.82 | 64.7 |
| June 2009 | 1.1 | 4.7 | NS | 120 | 5.14 | 64.0 |
| July 2009 | 1.1 | 5.5 | NS | 103 | 4.41 | 59.5 |
| August 2009 | 1.2 | 5.6 | 3.3 | 109 | 4.67 | 69.7 |
| September 2009 | 1.4 | 5.1 | NS | 125 | 5.38 | 71.4 |
| October 2009 | 1.3 | 4.8 | NS | 120 | 5.20 | 71.0 |
| November 2009 | 1.0 | 3.8 | 1.4 | 115 | 4.96 | 64.5 |
| December 2009 | 0.54 J | 3.9 | NS | 116 | 5.00 | 70.4 |
| January 2010 | 1.1 | 3.5 | 1.2 | 125 | 5.40 | 71.8 |
| February 2010 | 1.2 | 3.8 | NS | 122 | 5.26 | 70.6 |
| March 2010 | 1.2 | 3.8 | NS | 114 | 4.92 | 65.4 |

| | |
|---|---|
| NS | Not sampled, only need to sample effluent one time per quarter as per NJPDES Permit |
| ND | Not detected |
| ug/L | micrograms/Liter |
| gpm | gallons per minute |
| MGM | million gallons per month |

**TABLE 10**
**IMPLEMENTATION SCHEDULE**
**FORMER LEC SITE - WATCHUNG, NEW JERSEY**

| TASKS | 2010 | | | | | 2011 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May |
| System Monitoring and Sampling | | | | | | | | | | |
| Submission of Sensitive Population Resource Checklist | | | | | | | | | | |
| Ground Water/Surface Water Sample Collection and Analysis | | | | | | | | | | |
| Report Preparation | | | | | | | | | | |
| Remedial Action Progress Report to NJDEP | | | | | | | | | | |

# APPENDICES

# APPENDIX A

# APPENDIX A

## NJDEP Contour Map Reporting Forms

**CONTOUR MAP REPORTING FORM –**
**Shallow Zone**
**September 8, 2009**

This reporting form shall accompany each ground water contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes___No___X. If yes, attach new "Well Certification - Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).

2. Are there any monitoring wells in unconfined aquifers in which in which the water table elevation is higher than the top of the well screen? Yes_____X No _____. If yes, identify these wells.

   All the wells used in the construction of contours are for monitoring a chlorinated solvent plume. The well screens are typically below static water level.

3. Are there any monitoring wells present at the site but omitted from the contour map? Yes _____No___X . Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

4. Are there any monitoring wells containing separate phase product during this measuring event? Yes _____ No___X. Were any of the monitoring wells with separate phase product included in the ground water contour map? Yes_____ No __ . If yes, show the formula used to correct the water table elevation.

5. Has the ground water flow direction changed more than 45° from the previous ground water contour map? Yes___ No X. If yes, discuss the reasons for the change.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes___X No___ Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No___. If no, justify inclusion of those wells. See Table 3-includes the wells listed in shallow zone which are included on the contour map.

8. Were the ground water contours computer generated __, computer aided __, or hand-drawn X ? If computer aided or generated, identify the interpolation method(s) used.

**CONTOUR MAP REPORTING FORM –**
**Intermediate Zone**
**September 8, 2009**

This reporting form shall accompany each ground water contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes___No___X. If yes, attach new "Well Certification - Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).

2. Are there any monitoring wells in unconfined aquifers in which in which the water table elevation is higher than the top of the well screen? Yes_____No X . If yes, identify these wells.

   The wells used in this contour map are screened within an intermediate bedrock zone.

3. Are there any monitoring wells present at the site but omitted from the contour map? Yes _____No___X . Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

4. Are there any monitoring wells containing separate phase product during this measuring event? Yes _____ No___X. Were any of the monitoring wells with separate phase product included in the ground water contour map? Yes_____ No __ . If yes, show the formula used to correct the water table elevation.

5. Has the ground water flow direction changed more than 45° from the previous ground water contour map? Yes___ No X. If yes, discuss the reasons for the change.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes___X No___ Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No___. If no, justify inclusion of those wells. See Table 3 for the wells used in the intermediate zone contour map

8. Were the ground water contours computer generated __, computer aided ___, or hand-drawn X ? If computer aided or generated, identify the interpolation method(s) used.

**CONTOUR MAP REPORTING FORM –**
**Deep Zone**
**September 8, 2009**

This reporting form shall accompany each ground water contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes___No___X. If yes, attach new "Well Certification - Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).

2. Are there any monitoring wells in unconfined aquifers in which in which the water table elevation is higher than the top of the well screen? Yes_____No X . If yes, identify these wells.

   The wells used in this contour map are screened within the deep bedrock zone.

3. Are there any monitoring wells present at the site but omitted from the contour map? Yes _____No___X . Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

4. Are there any monitoring wells containing separate phase product during this measuring event? Yes _____ No___X. Were any of the monitoring wells with separate phase product included in the ground water contour map? Yes_____ No __ . If yes, show the formula used to correct the water table elevation.

5. Has the ground water flow direction changed more than 45° from the previous ground water contour map? Yes___ No X. If yes, discuss the reasons for the change.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes_____No___X Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No____. If no, justify inclusion of those wells. See Table 3 for the wells used in the deep zone contour map

8. Were the ground water contours computer generated __, computer aided ___, or hand-drawn X ? If computer aided or generated, identify the interpolation method(s) used.

**CONTOUR MAP REPORTING FORM –**
**Shallow Zone**
**March 9, 2010**

This reporting form shall accompany each ground water contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes___No___X. If yes, attach new "Well Certification - Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).

2. Are there any monitoring wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes___X No _____. If yes, identify these wells.

   All the wells used in the construction of contours are for monitoring a chlorinated solvent plume. The well screens are typically below static water level.

3. Are there any monitoring wells present at the site but omitted from the contour map? Yes _____No___X. Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

4. Are there any monitoring wells containing separate phase product during this measuring event? Yes _____ No___X. Were any of the monitoring wells with separate phase product included in the ground water contour map? Yes_____ No _____. If yes, show the formula used to correct the water table elevation.

5. Has the ground water flow direction changed more than 45° from the previous ground water contour map? Yes___ No X. If yes, discuss the reasons for the change.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes___X No___ Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No___. If no, justify inclusion of those wells. See Table 3-includes the wells listed in shallow zone which are included on the contour map.

8. Were the ground water contours computer generated __, computer aided ___, or hand-drawn X ? If computer aided or generated, identify the interpolation method(s) used.

**CONTOUR MAP REPORTING FORM –**
**Intermediate Zone**
**March 9, 2010**

This reporting form shall accompany each ground water contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes___No___X. If yes, attach new "Well Certification - Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).

2. Are there any monitoring wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes__No X . If yes, identify these wells.

   The wells used in this contour map are screened within an intermediate bedrock zone.

3. Are there any monitoring wells present at the site but omitted from the contour map? Yes _____No___X . Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

4. Are there any monitoring wells containing separate phase product during this measuring event? Yes _____ No___X. Were any of the monitoring wells with separate phase product included in the ground water contour map? Yes_____ No _____. If yes, show the formula used to correct the water table elevation.

5. Has the ground water flow direction changed more than 45° from the previous ground water contour map? Yes___ No X . If yes, discuss the reasons for the change.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes___X No___ Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No___. If no, justify inclusion of those wells. See Table 3 for the wells used in the intermediate zone contour map

8. Were the ground water contours computer generated __, computer aided ___, or hand-drawn X ? If computer aided or generated, identify the interpolation method(s) used.

**CONTOUR MAP REPORTING FORM –**
**Deep Zone**
**March 9, 2010**

This reporting form shall accompany each ground water contour map submittal. Use additional sheets as necessary.

1. Did any surveyed well casing elevations change from the previous sampling event? Yes___No___X. If yes, attach new "Well Certification - Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).

2. Are there any monitoring wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes__No X . If yes, identify these wells.

   The wells used in this contour map are screened within the deep bedrock zone.

3. Are there any monitoring wells present at the site but omitted from the contour map? Yes _____No___X . Unless the omission of the well(s) has been previously approved by the Department, justify the omissions.

4. Are there any monitoring wells containing separate phase product during this measuring event? Yes _____ No___X. Were any of the monitoring wells with separate phase product included in the ground water contour map? Yes_____ No _____. If yes, show the formula used to correct the water table elevation.

5. Has the ground water flow direction changed more than 45° from the previous ground water contour map? Yes___ No X. If yes, discuss the reasons for the change.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes_____No___X Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No___. If no, justify inclusion of those wells. See Table 3 for the wells used in the deep zone contour map

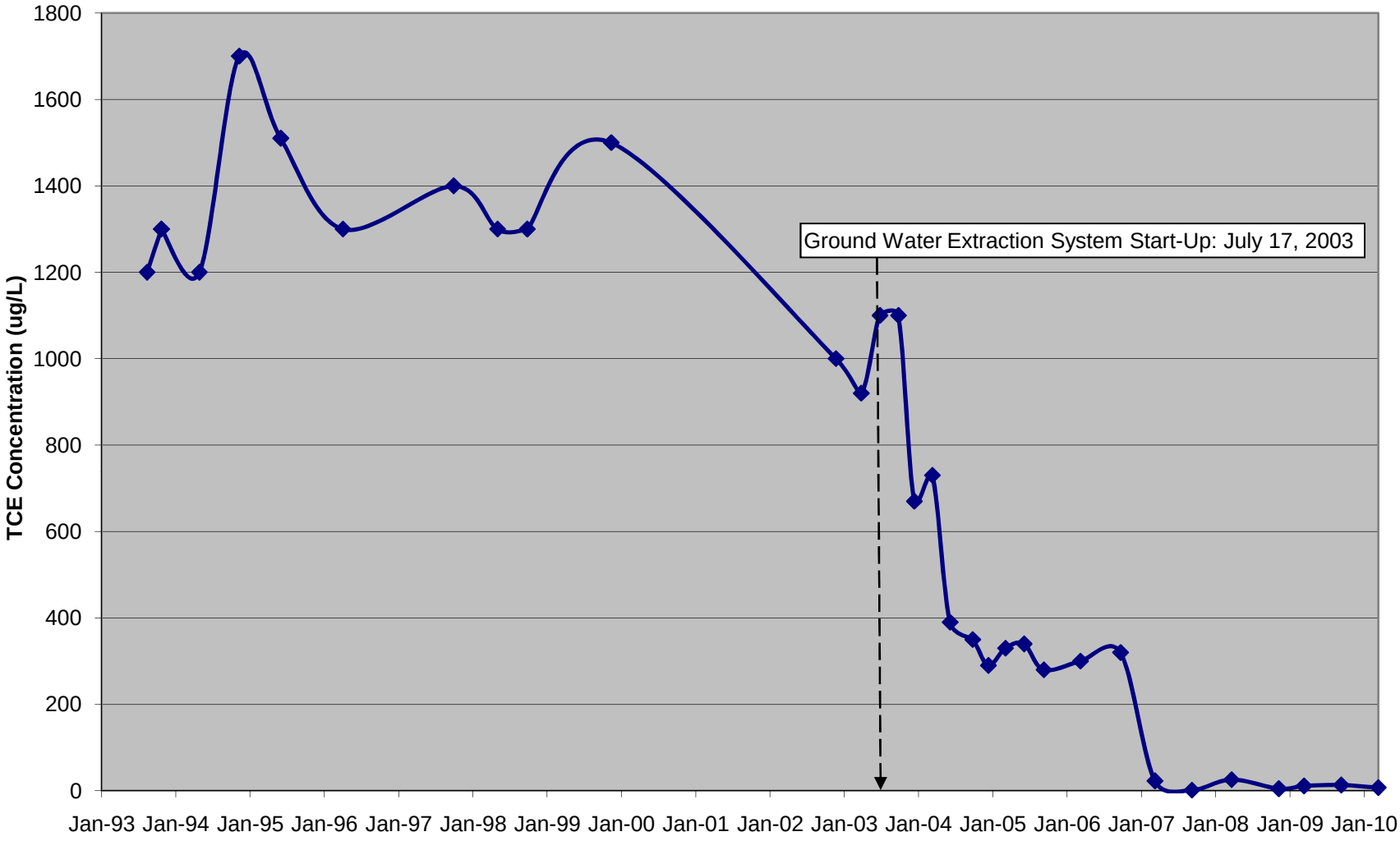
8. Were the ground water contours computer generated __, computer aided __, or hand-drawn X ? If computer aided or generated, identify the interpolation method(s) used.

# APPENDIX B

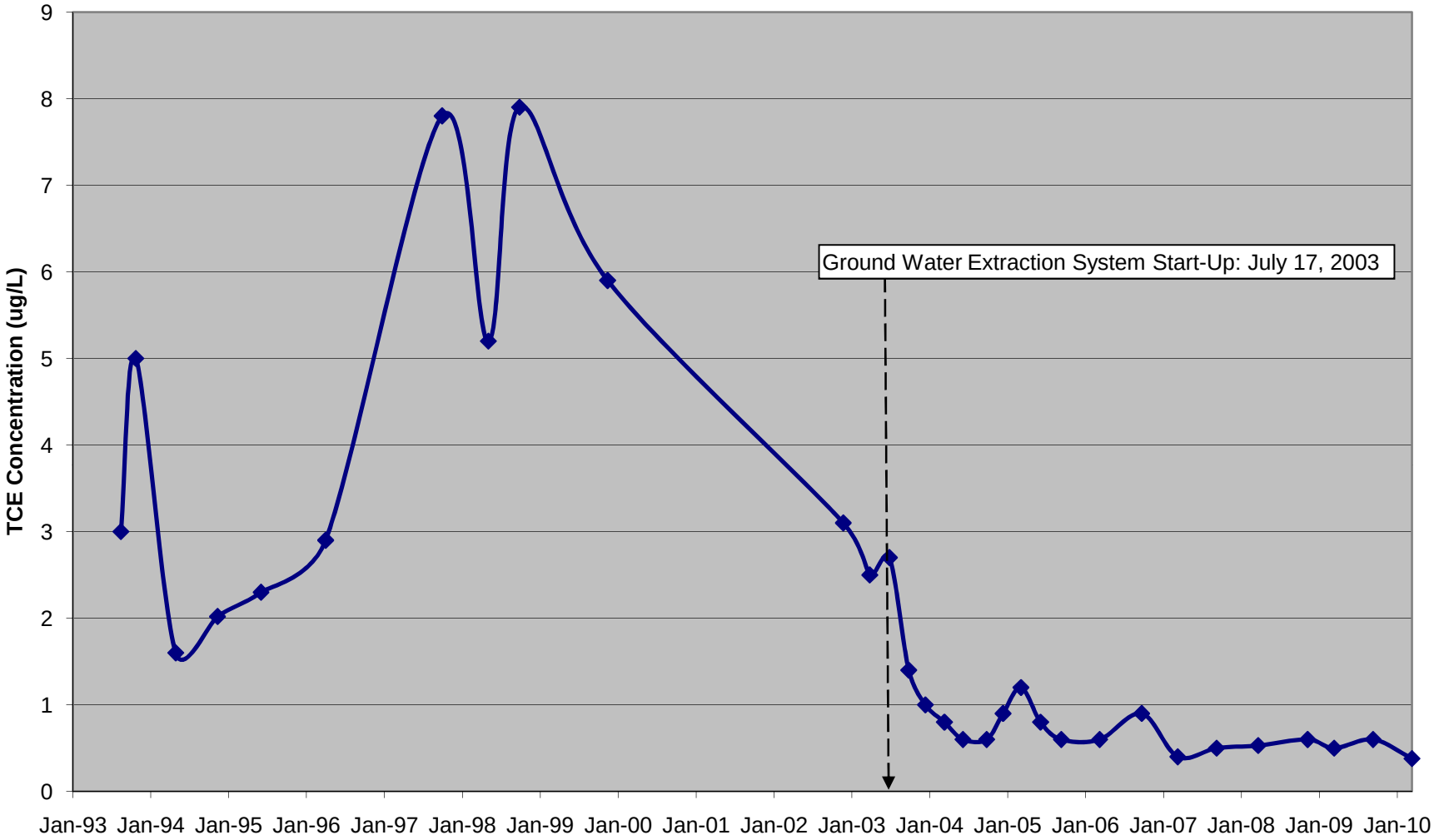
# APPENDIX B

## Plots of TCE Concentration Versus Time for Selected Monitoring Wells

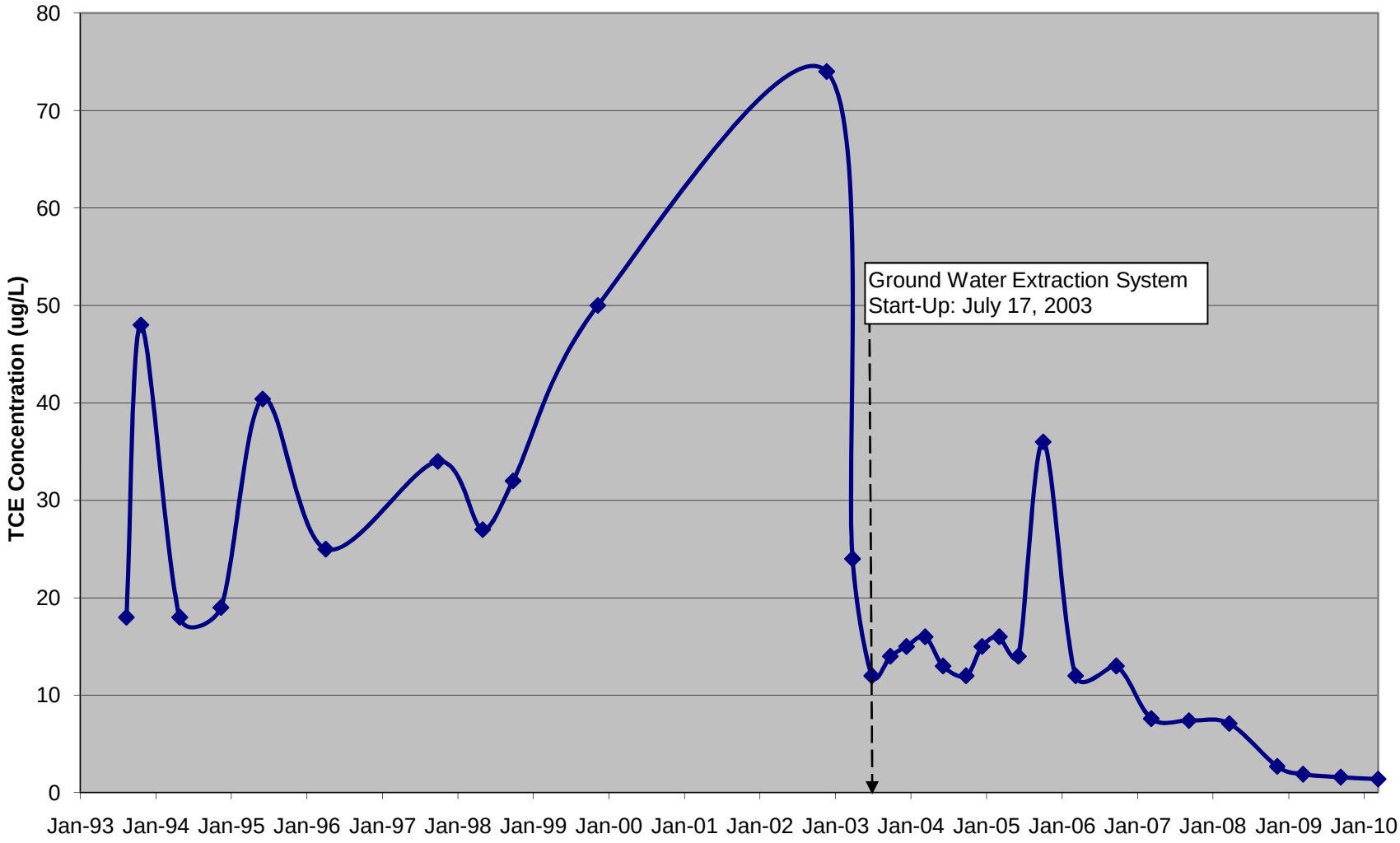
**Well MW-502S**
**Historical TCE Concentrations**



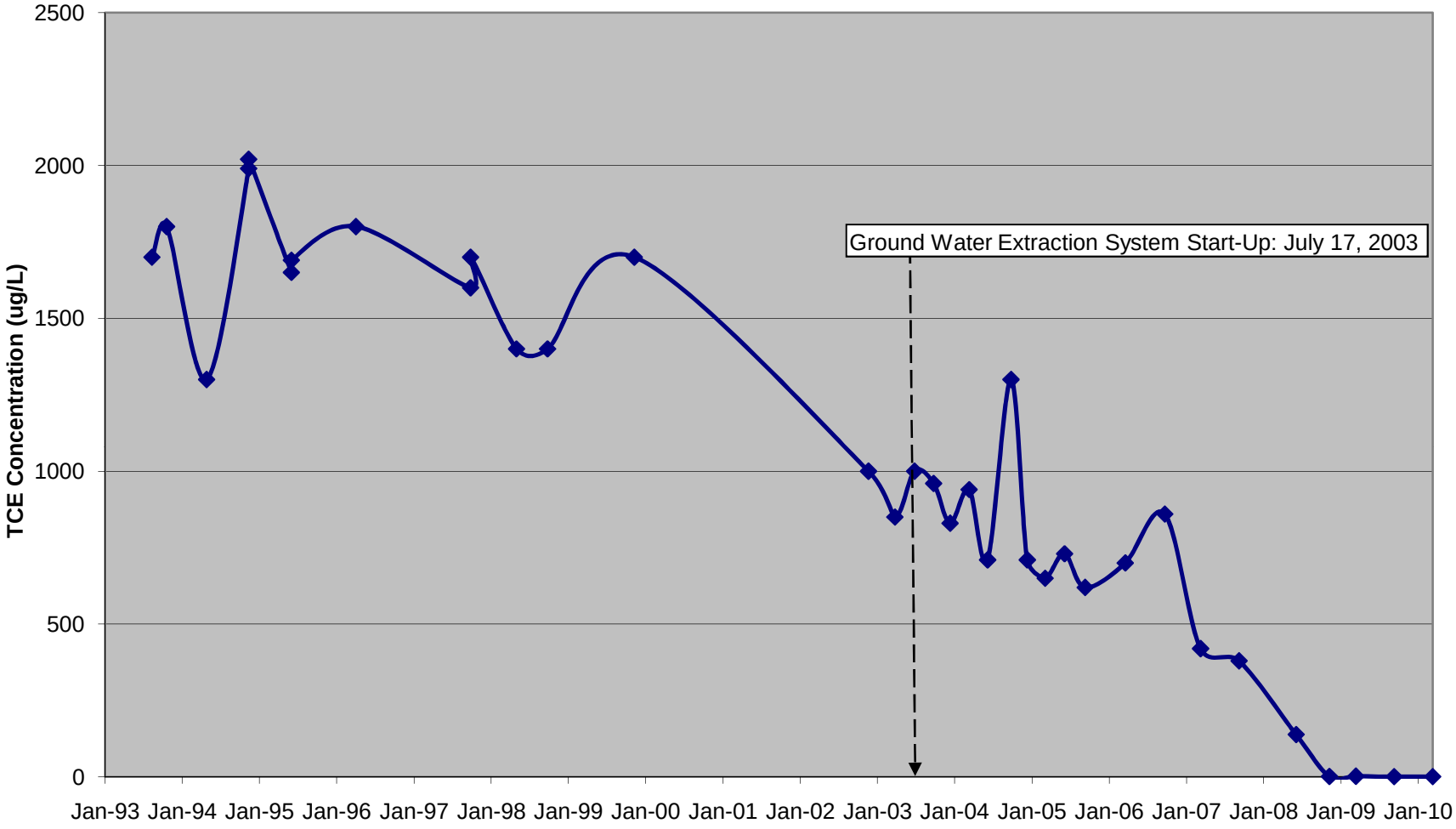
**Well MW-502I**
**Historical TCE Concentrations**



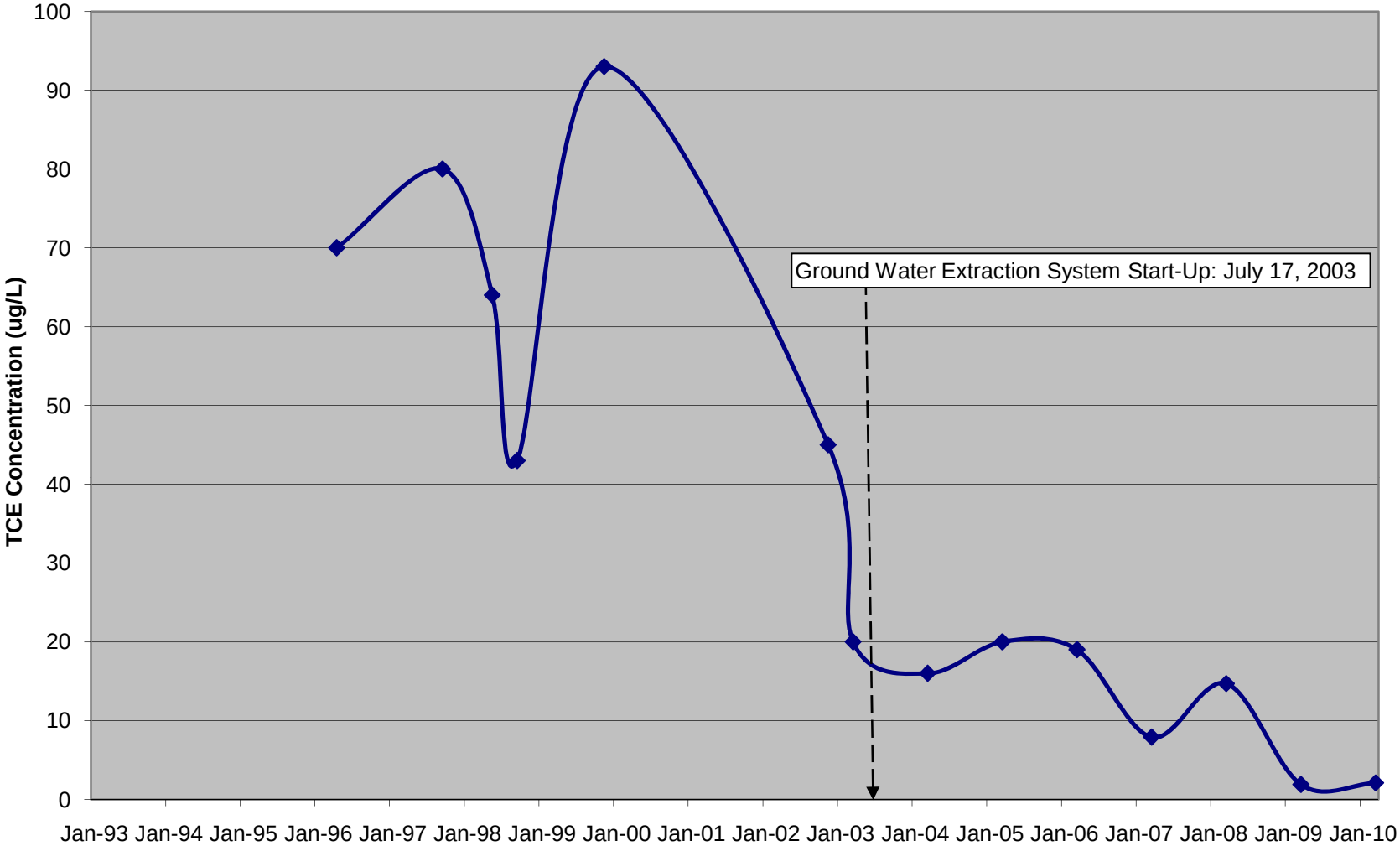
**Well MW-506S**
**Historical TCE Concentrations**



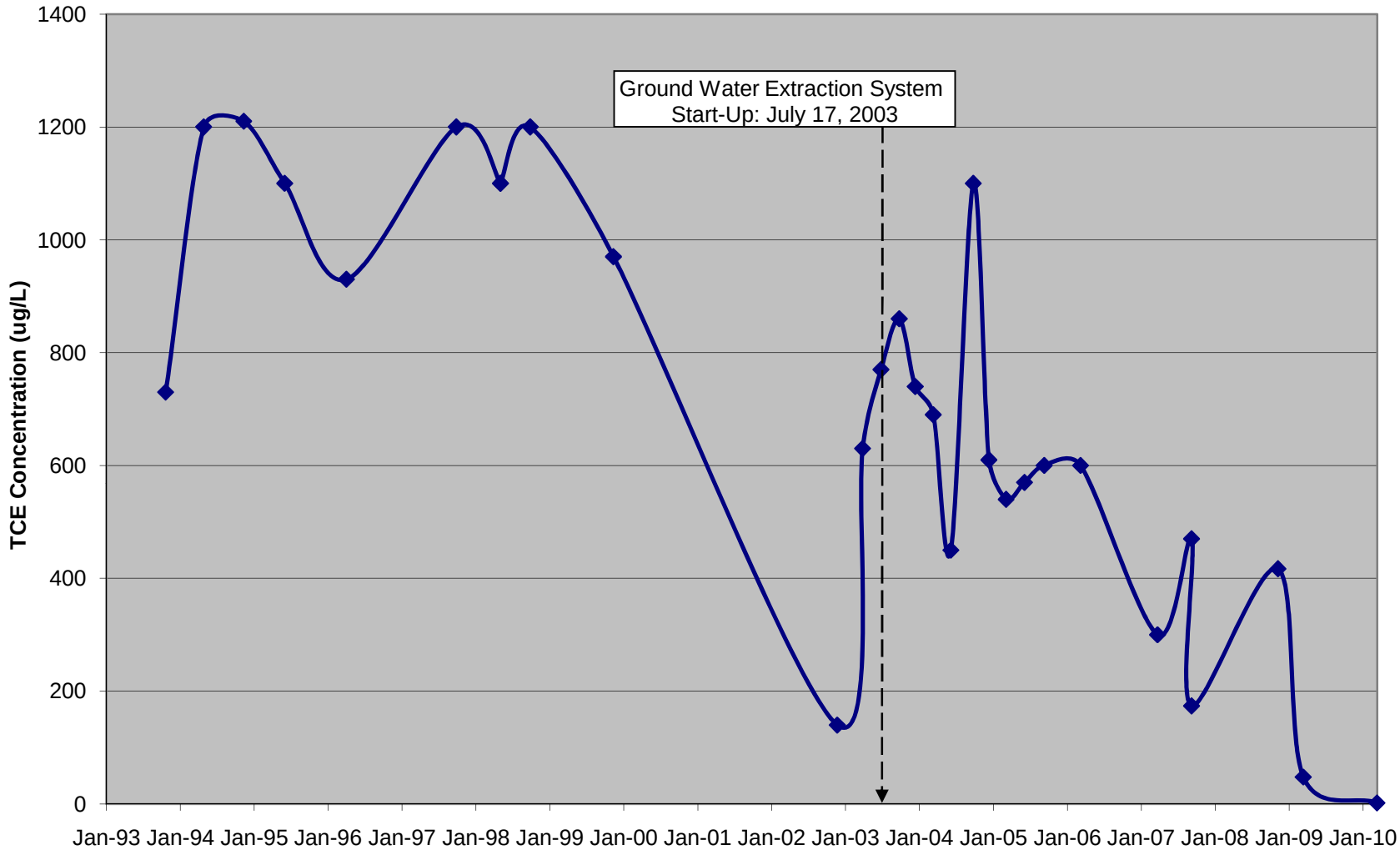
**Well MW-506I**
**Historical TCE Concentrations**



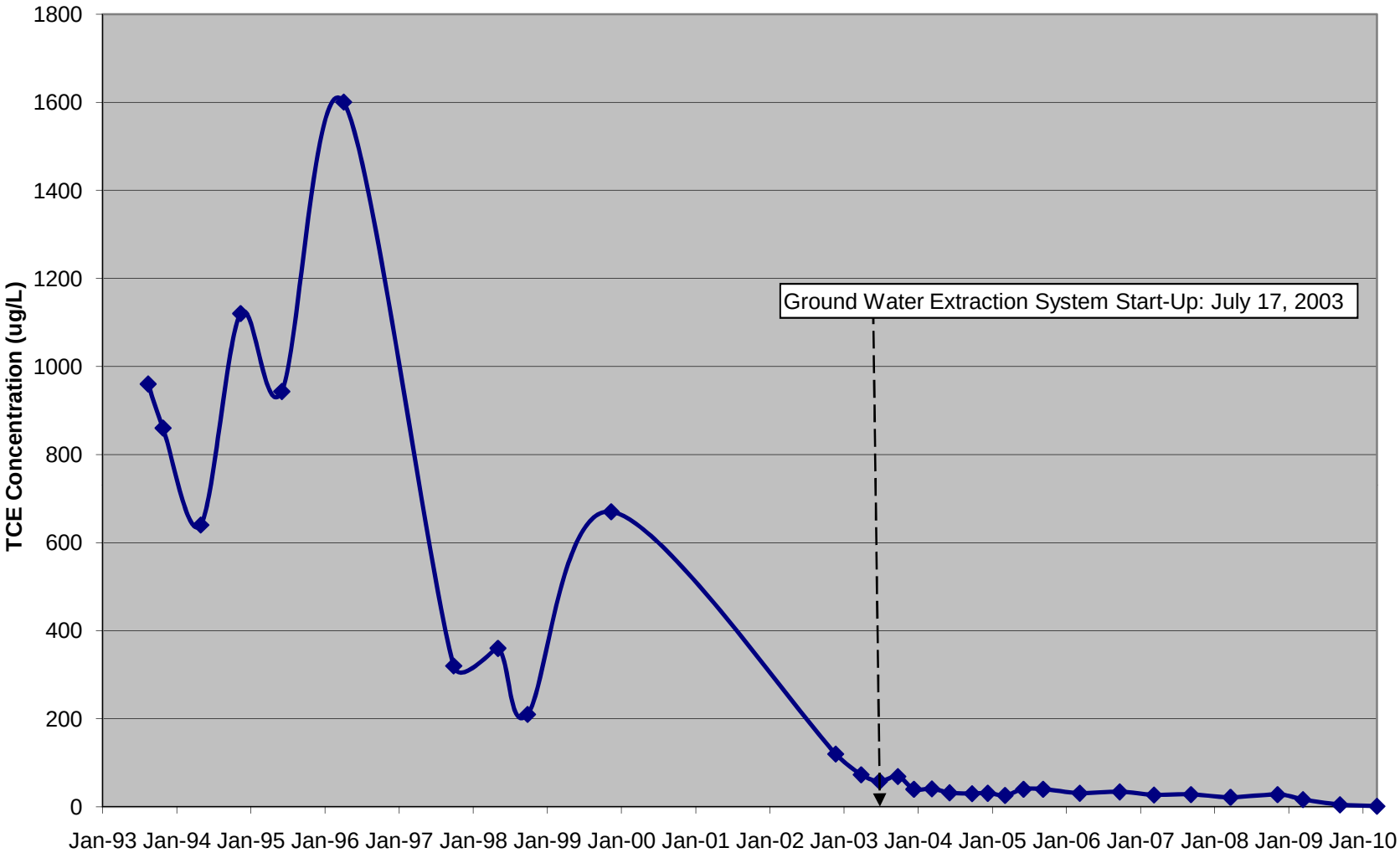
**Well MW-507S**
**Historical TCE Concentrations**



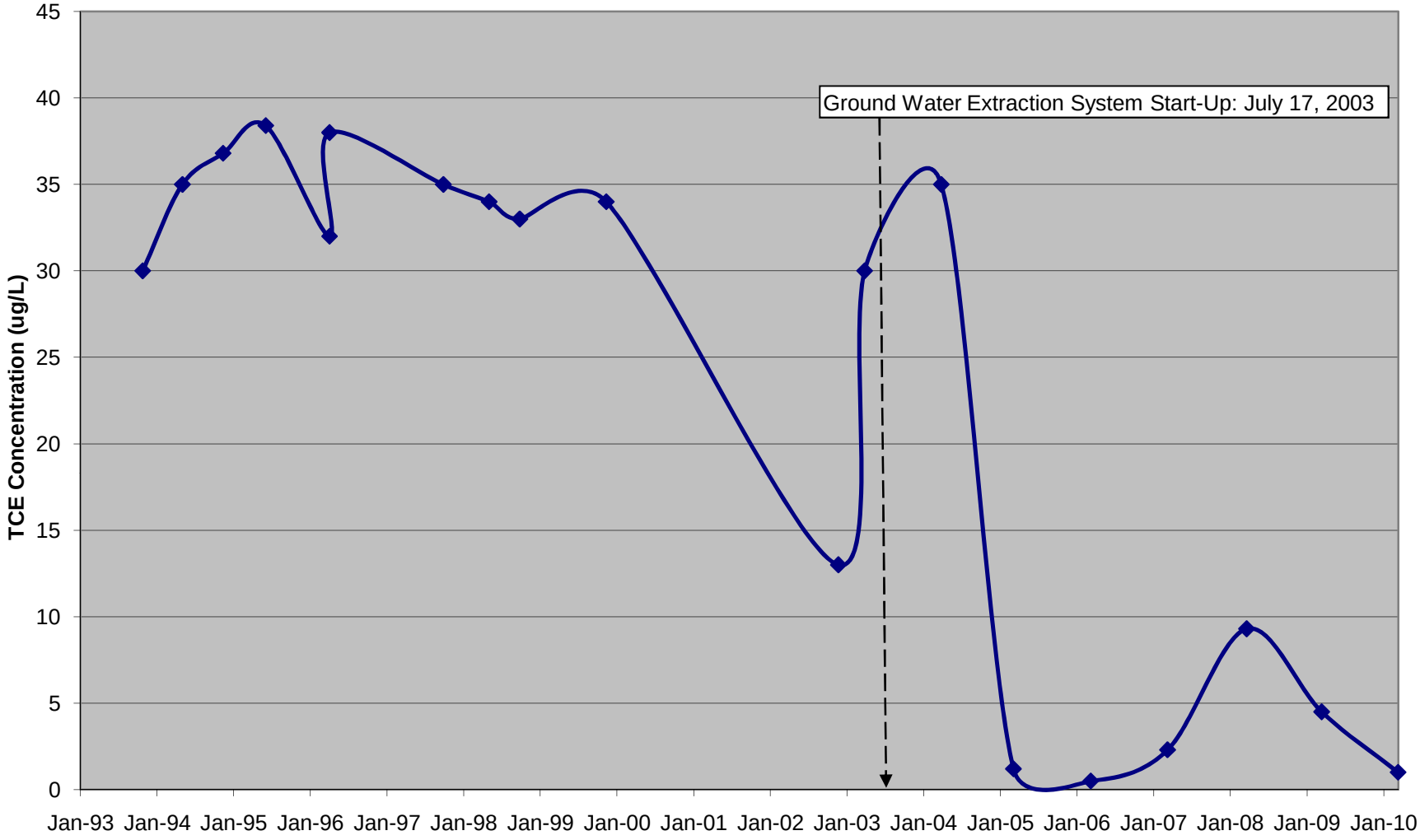
**Well MW-507I**
**Historical TCE Concentrations**



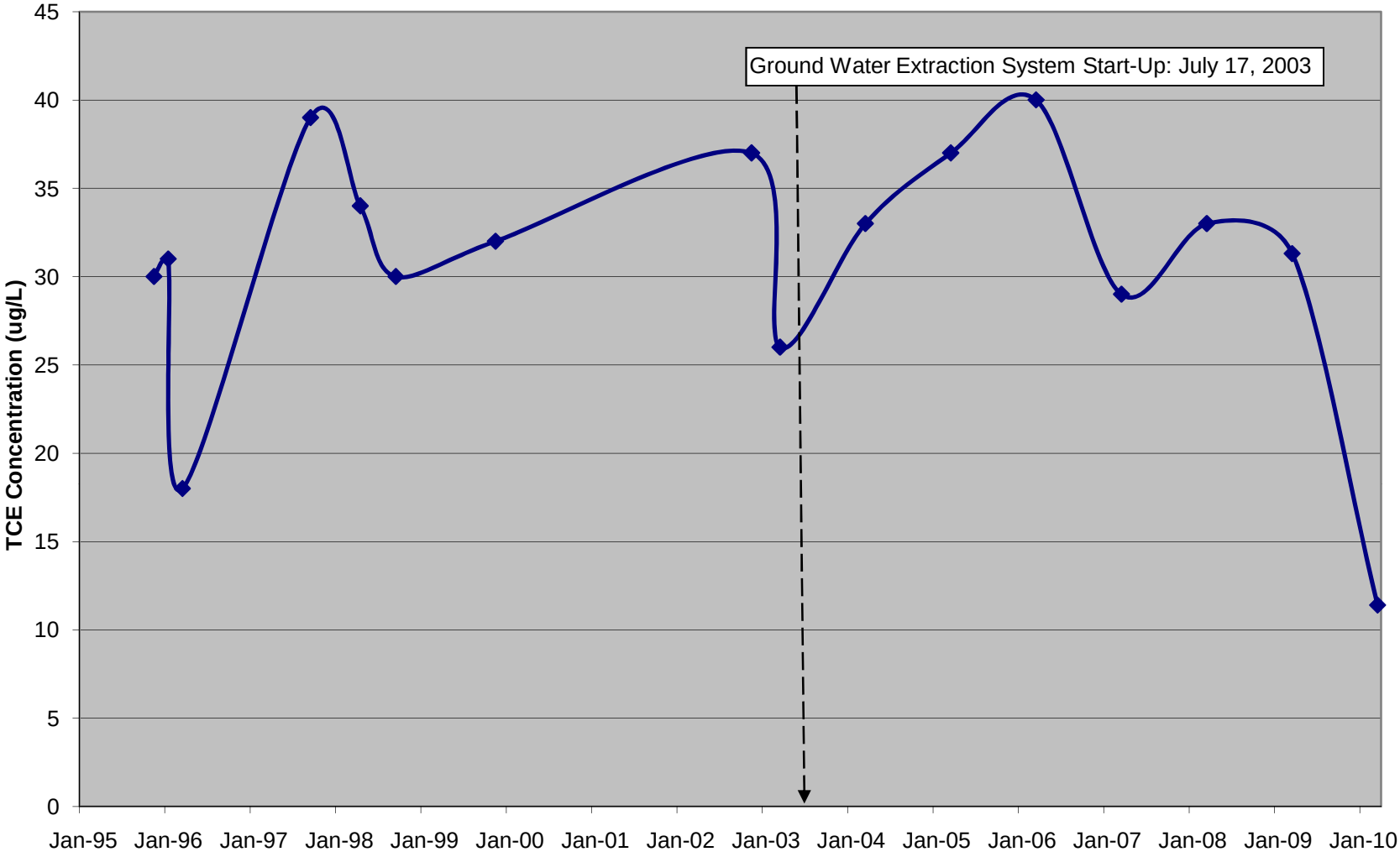
**Well MW-508S**
**Historical TCE Concentrations**



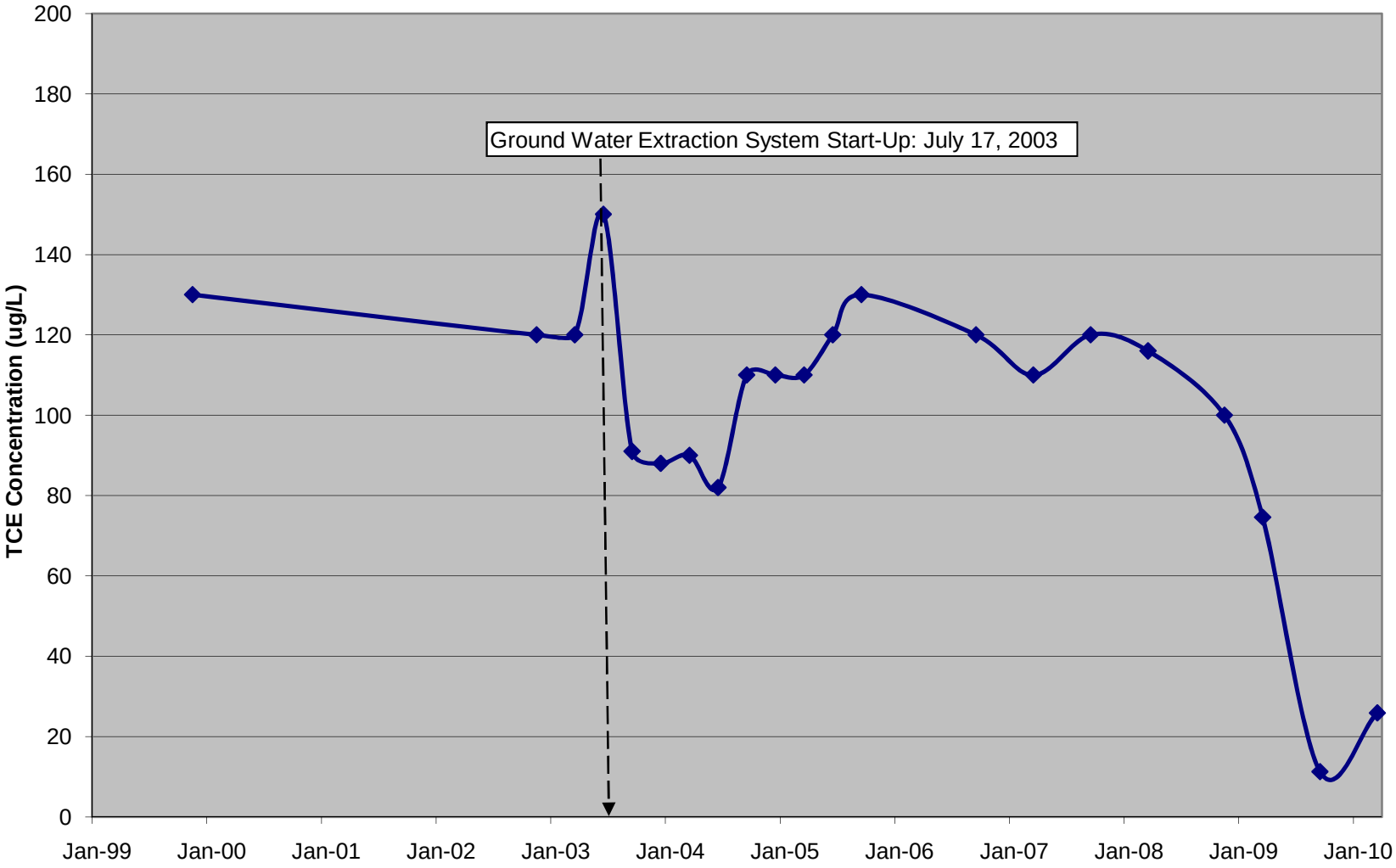
**Well MW-508D**
**Historical TCE Concentrations**



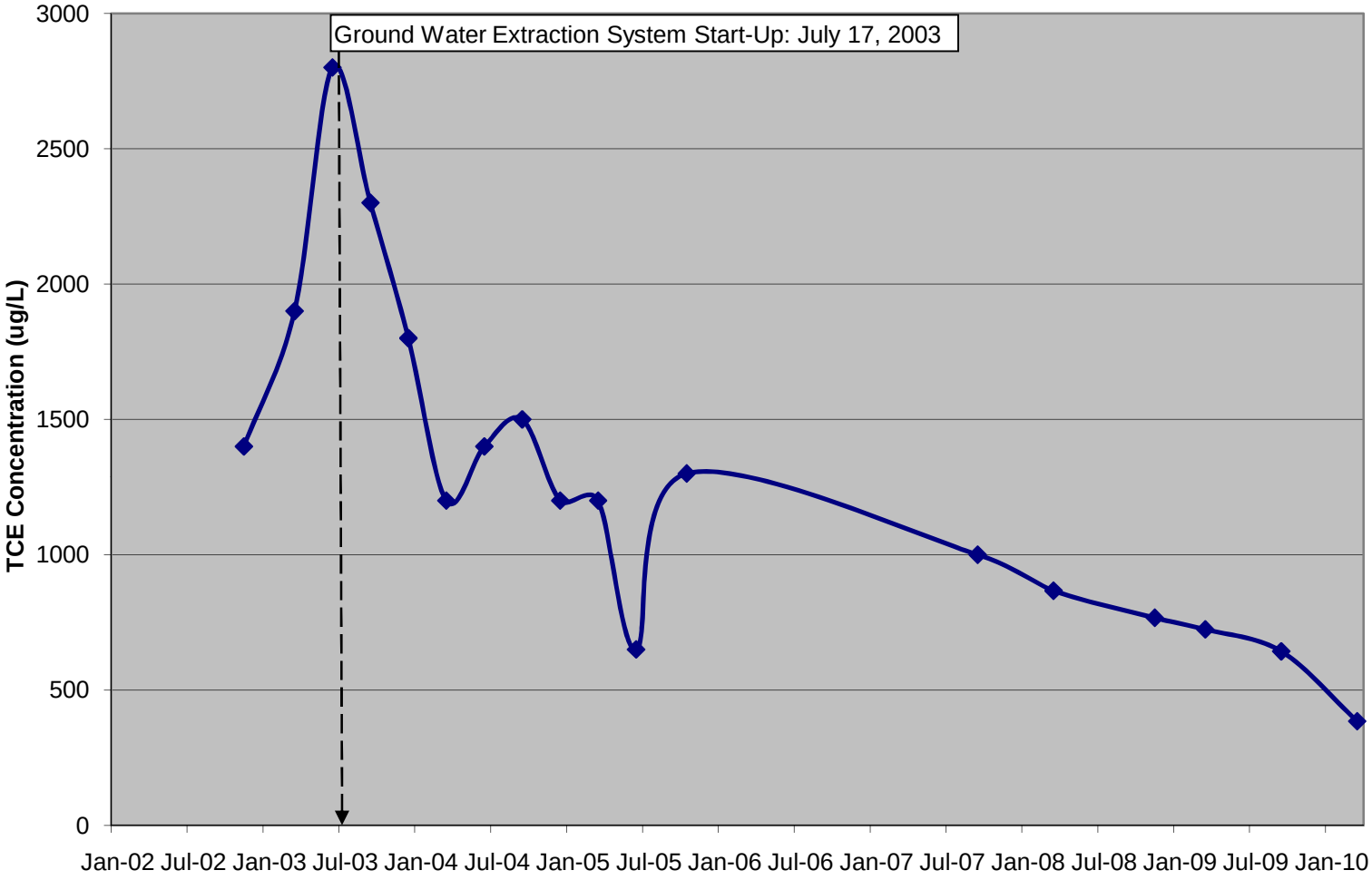
**Well MW-532D**
**Historical TCE Concentrations**



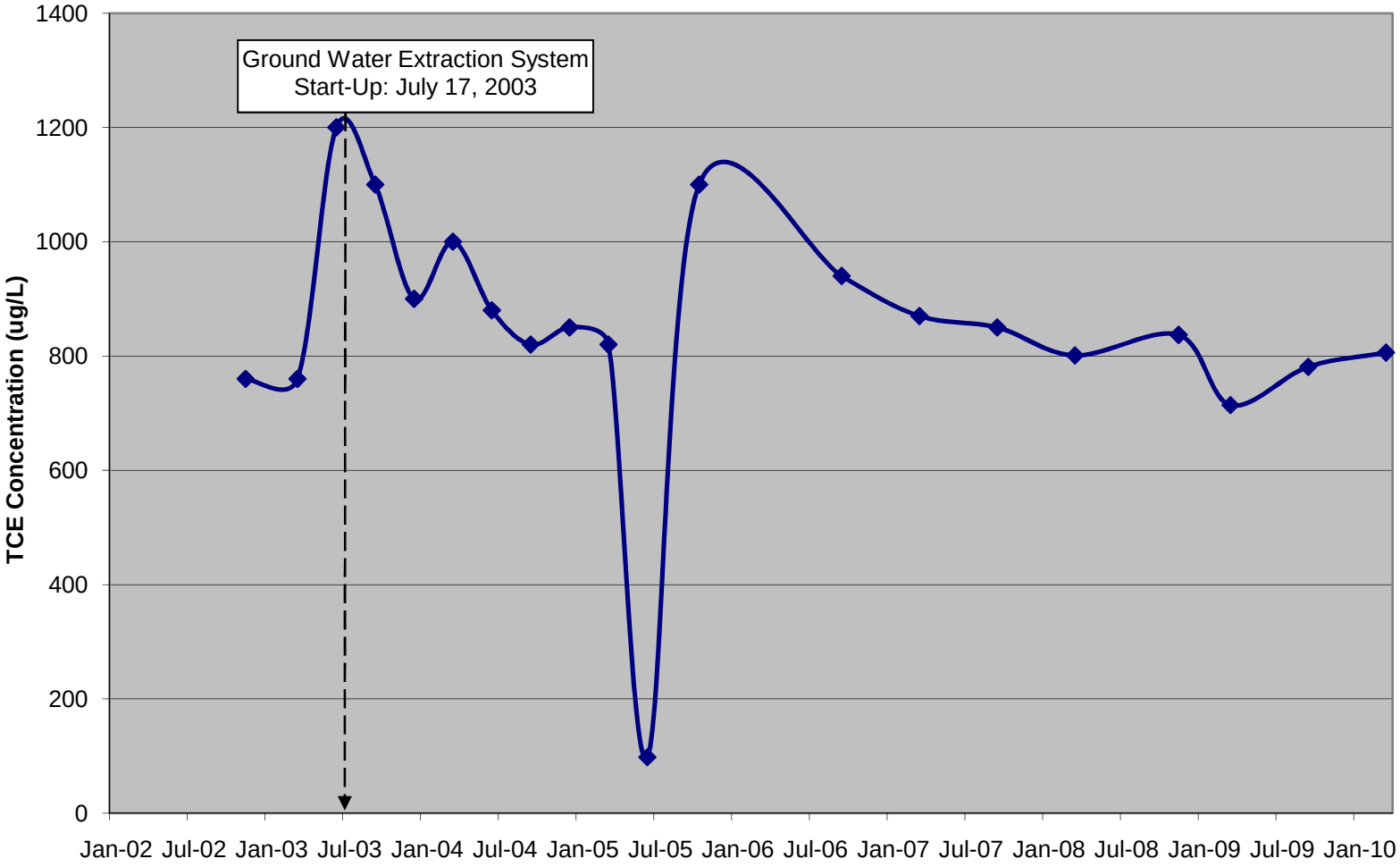
**Well MW-546D**
**Historical TCE Concentrations**



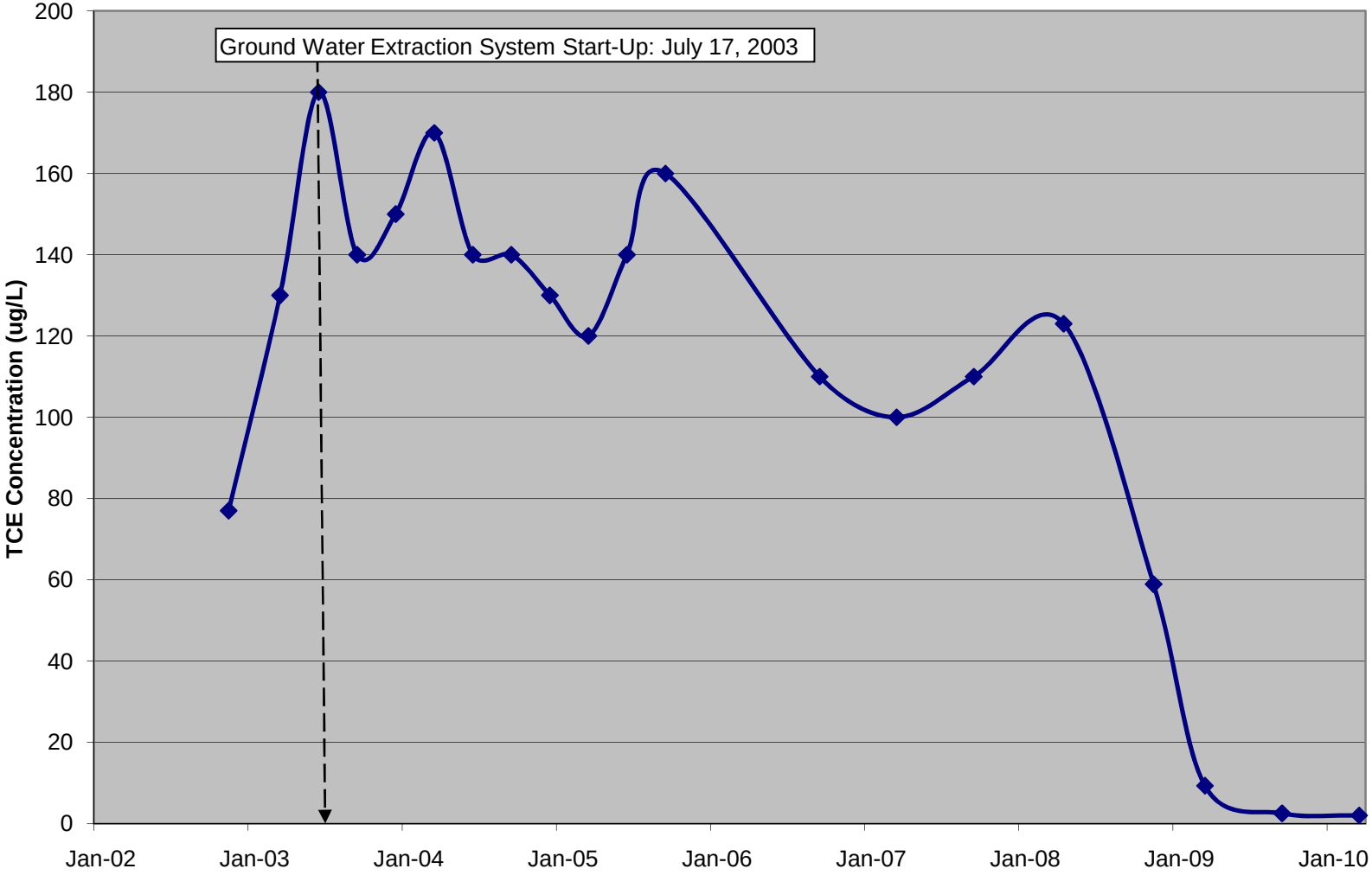
**Well MW-549S**
**Historical TCE Concentrations**



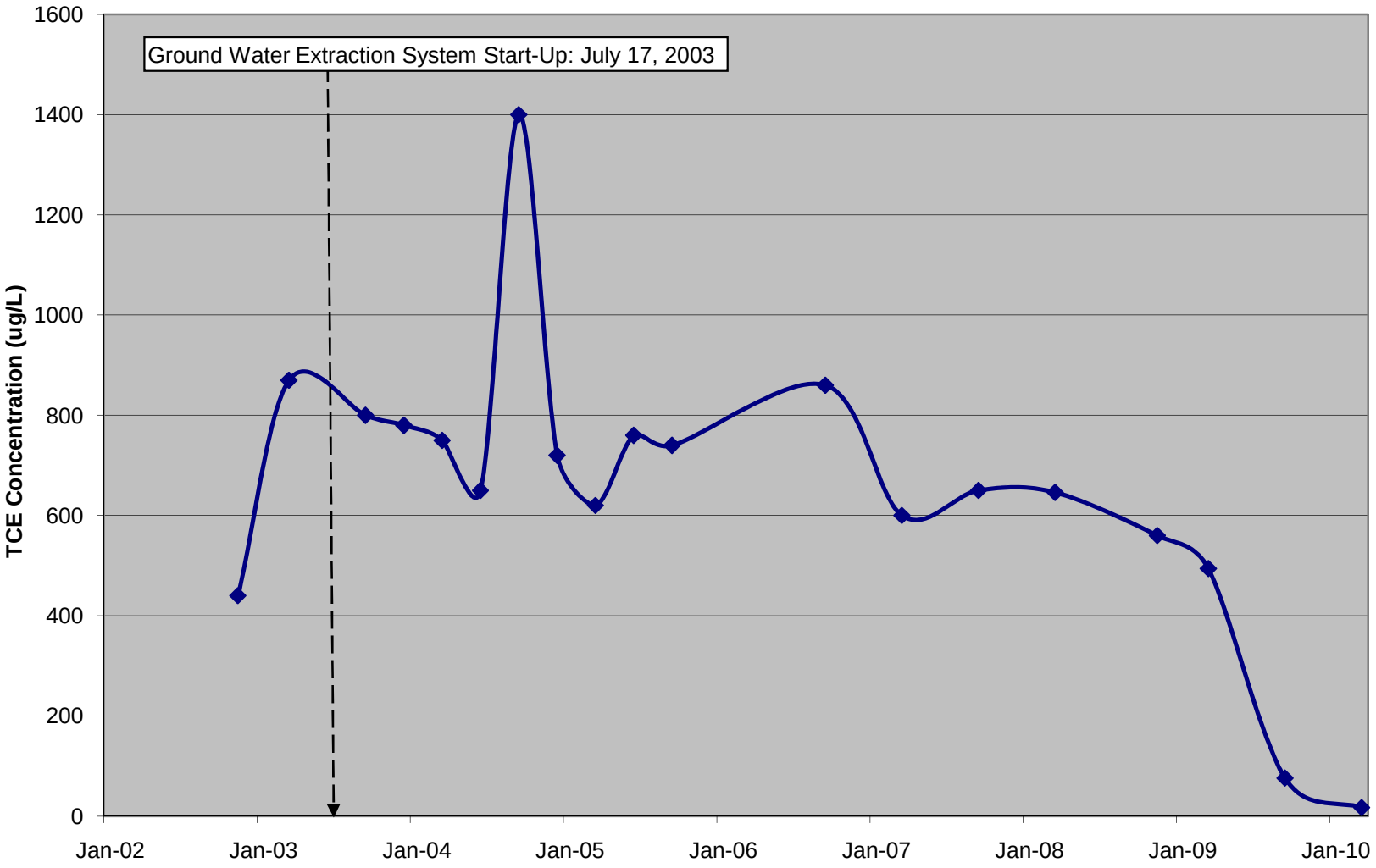
**Well MW-549I**
**Historical TCE Concentrations**



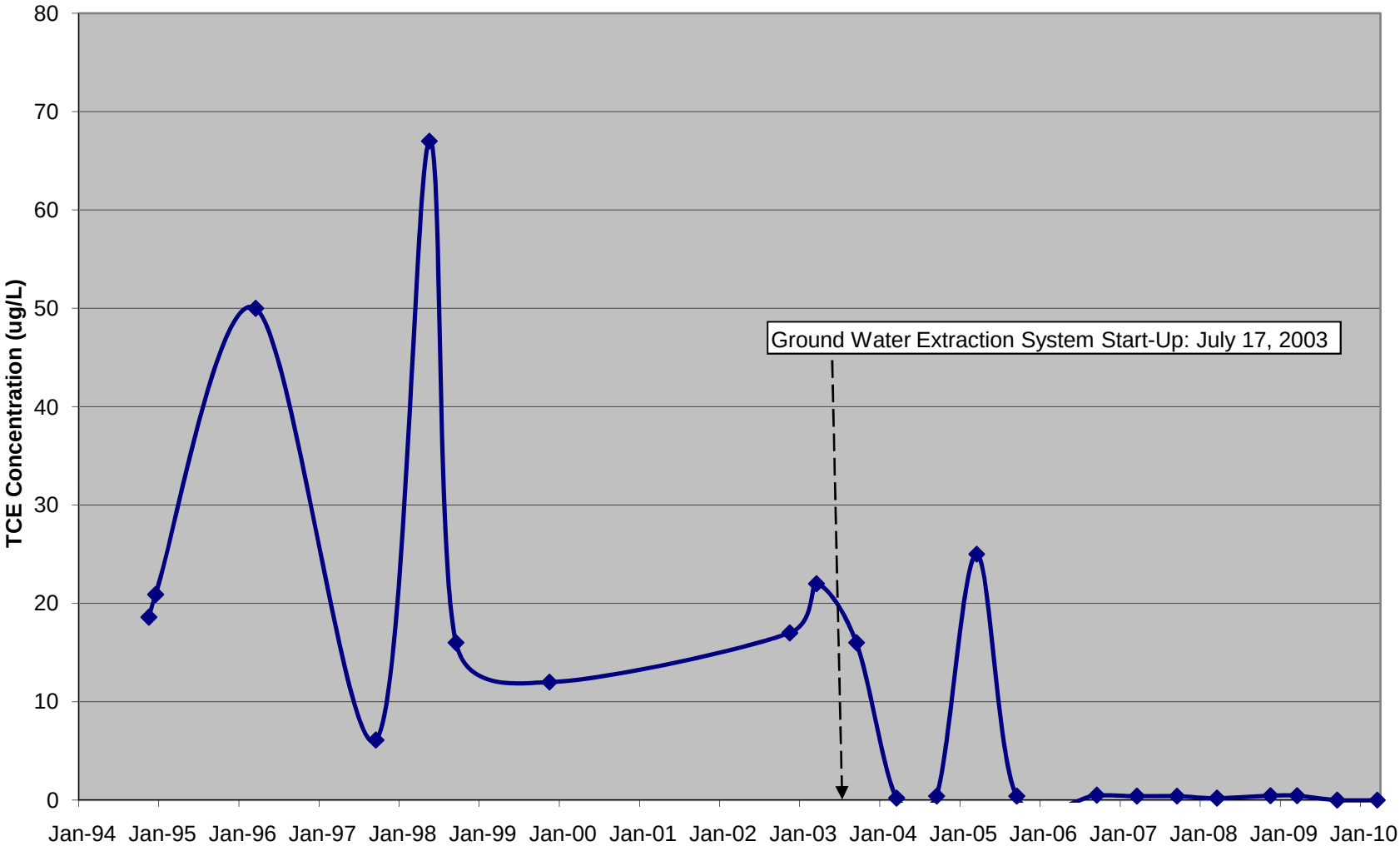
**Well MW-550S**
**Historical TCE Concentrations**



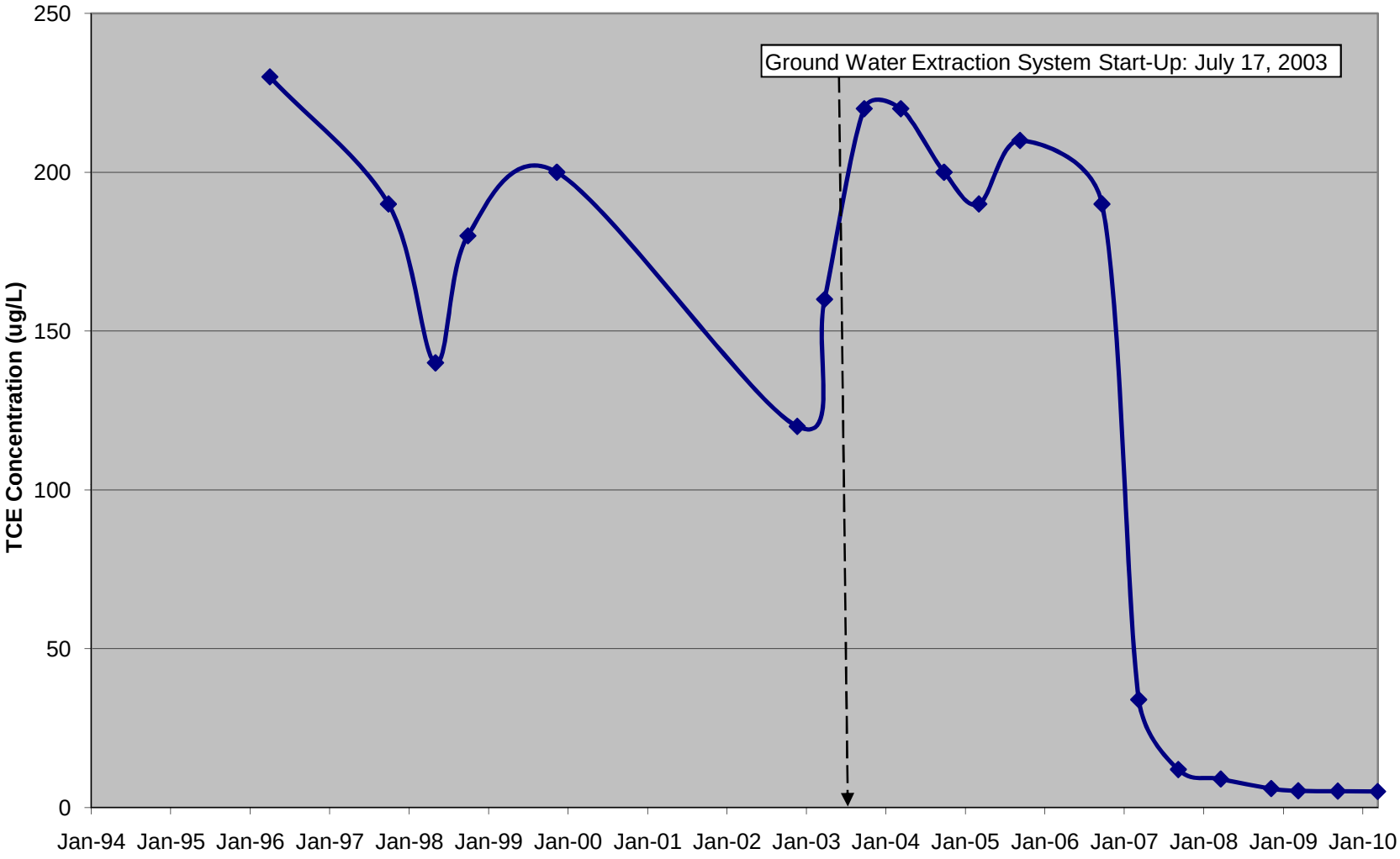
**Well MW-550I**
**Historical TCE Concentrations**



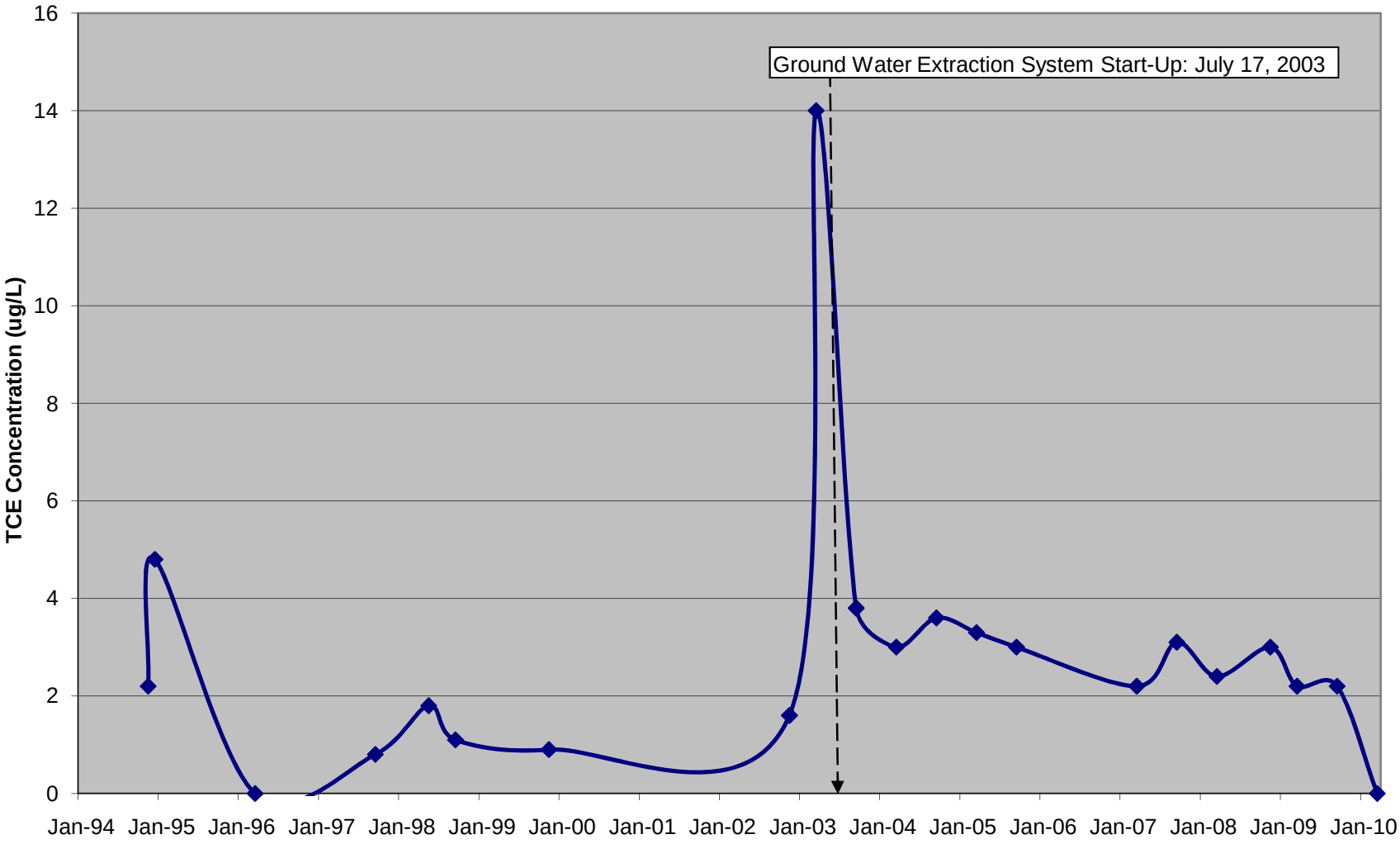
**Well PZ-522S**
**Historical TCE Concentrations**



**Well PZ-522I**
**Historical TCE Concentrations**



**Well PZ-522D**
**Historical TCE Concentrations**



# APPENDIX C

# APPENDIX C

## Stream Sampling Field Measurements

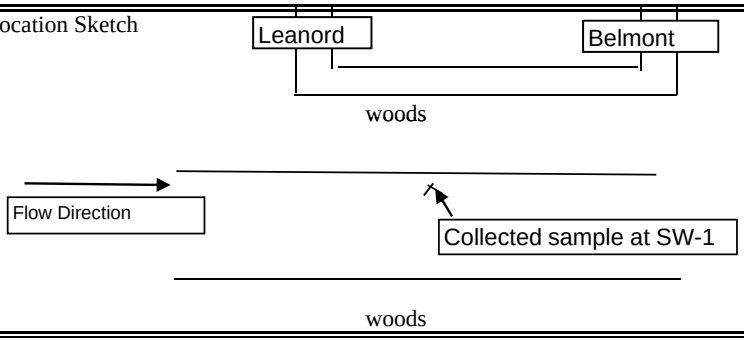
# TRC Environmental Corporation
# SAMPLE DATA RECORD : Crab Brook

| | | | | | |
|---|---|---|---|---|---|
| Site ID: | Former LEC Site | | | Sample Date: | 9/8/2009 |
| Stream Location: | Crab Brook | | | Sample Time: | 0:00 |
| Sample Location: | SW-1 | Water Body Sample Type: | | Surface Water Sample | |
| Sample ID: | SW-1 | Decon (y/n) | | | |
| Sample Collection Method: | Grab | Velocity(ft3/sec): | 0.50 | Flow Rate(gpm): | 225.1 |

| | | | |
|---|---|---|---|
| Sample Appearance/Odor: | Clear | Sampler(s): | JO/TD |
| pH | 6.99 | Temperature | 19.02 |
| Conductivity | 0.819 mS/cm | Salinity | -- |
| Turbidity | 8.3 | Eh | 288 |
| DO | 7.59 | | |
| Sample Bottles ID | SW-1 | Sample EPA Method | 624+10 |

Notes: HORIBA U-22

Location Sketch




**Stream Location: Belmont & Leanord**

| **SW-1** | Width (ft) | Depth (ft) | Velocity (ft/sec) | Stream Flow (ft3/sec) | Stream Flow (gpm) |
|---|---|---|---|---|---|
| #1 | 1.25 | 1.08 | ND | 0.0 | 0.0 |
| #2 | 1.25 | 0.75 | ND | 0.0 | 0.0 |
| #3 | 1.25 | 0.38 | 1.50 | 0.4 | 157.8 |
| #4 | 1.25 | 0.16 | 1.50 | 0.2 | 67.3 |
| Total Width | 5.0 | | | 0.50 | 225.1 |

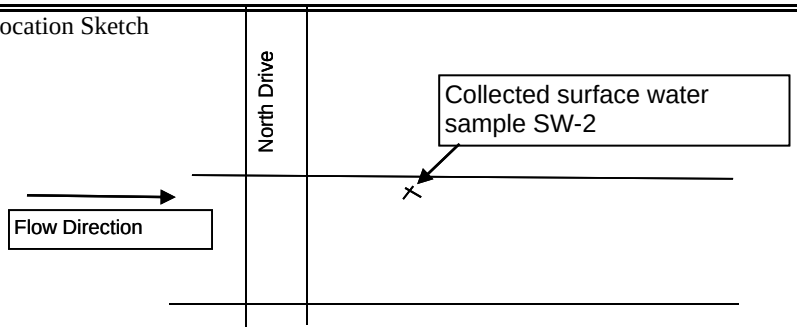
# TRC Environmental Corporation
# SAMPLE DATA RECORD : Crab brook

| | | | | | |
|---|---|---|---|---|---|
| Site ID: | Former LEC Site | | | Sample Date: | 9/9/2009 |
| Stream Location: | Crab Brook | | | Sample Time: | 9:58 |
| Sample Location: | SW-2 | Water Body Sample Type: | | Surface Water Sample | |
| Sample ID: | SW-2 | Decon (y/n) | | | |
| Sample Collection Method: | Grab | Velocity(ft3/sec): | 0.70 | Flow Rate(gpm): | 314.8 |

| | | | |
|---|---|---|---|
| Sample Appearance/Odor: | Clear | Sampler(s): | JO/TJB |
| pH | 7.44 | Temperature | 16.33 |
| Conductivity | 0.757 mS/cm | Salinity | -- |
| Turbidity | 12.6 | Eh | 254 |
| DO | 8.38 | | |
| Sample Bottles ID | SW-2 | Sample EPA Method | 624+10 |

Notes: HORIBA U-22

Location Sketch




**Stream Location: North Drive**

| **SW-2** | Width (ft) | Depth (ft) | Velocity (ft/sec) | Stream Flow (ft3/sec) | Stream Flow (gpm) |
|---|---|---|---|---|---|
| #1 | 0.8 | 0.08 | ND | 0.0 | 0.0 |
| #2 | 0.8 | 0.08 | 0.70 | 0.05 | 20.9 |
| #3 | 0.8 | 0.10 | 0.90 | 0.1 | 33.6 |
| #4 | 0.8 | 0.25 | 1.4 | 0.3 | 125.7 |
| #5 | 0.8 | 0.25 | 1.5 | 0.3 | 134.6 |
| Total Width | 4.0 | | | 0.70 | 314.8 |

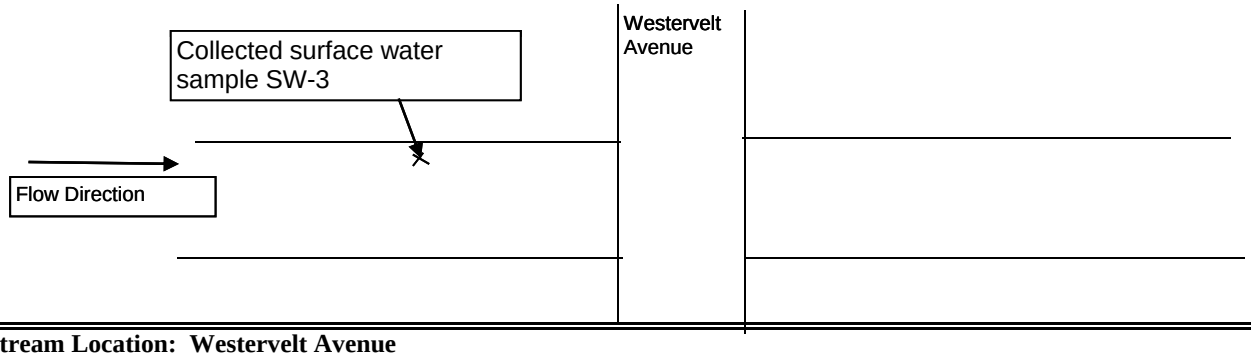
# TRC Environmental Corporation
# SAMPLE DATA RECORD : Crab Brook

| | | | |
|---|---|---|---|
| Site ID: | Former LEC Site | Sample Date: | 9/9/2009 |
| Stream Location: | Crab Brook | Sample Time: | 9:40 |
| Sample Location: | SW-3 | Water Body Sample Type: | Surface Water Sample |
| Sample ID: | SW-3 | Decon (y/n) | |
| Sample Collection Method: | Grab | Velocity(ft3/sec): 0.49 | Flow Rate(gpm): 221.5 |

| | | | |
|---|---|---|---|
| Sample Appearance/Odor: | Clear | Sampler(s): | JO/TJB |
| pH | 7.70 | Temperature | 17.02 |
| Conductivity | 0.780 mS/cm | Salinity | -- |
| Turbidity | 7.6 | Eh | 275 |
| DO | 8.41 | | |
| Sample Bottles ID | SW-3 | Sample EPA Method | 624+10 |

Notes: HORIBA U-22

Location Sketch




**Stream Location: Westervelt Avenue**

| **SW-3** | Width (ft) | Depth (ft) | Velocity (ft/sec) | Stream Flow (ft3/sec) | Stream Flow (gpm) |
|---|---|---|---|---|---|
| #1 | 1.4 | 0.25 | ND | 0.05 | 23.6 |
| #2 | 1.4 | 0.25 | 0.30 | 0.11 | 47.1 |
| #3 | 1.4 | 0.33 | 0.50 | 0.23 | 103.7 |
| #4 | 1.4 | 0.33 | ND | 0.07 | 31.1 |
| #5 | 1.4 | 0.17 | ND | 0.04 | 16.0 |
| Total Width | 7.0 | | | 0.49 | 221.5 |

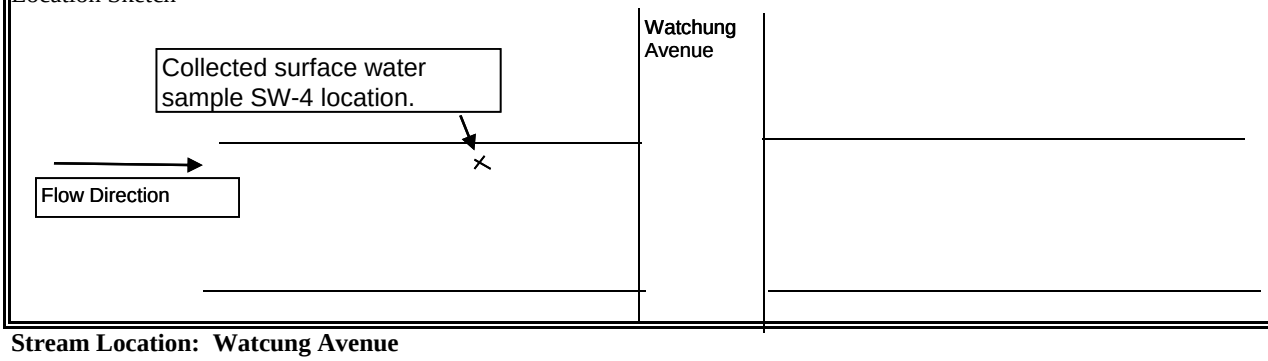
# TRC Environmental Corporation
# SAMPLE DATA RECORD : Crab Brook

| | | | |
|---|---|---|---|
| Site ID: | Former LEC Site | Sample Date: | 9/9/2009 |
| Stream Location: | Crab Brook | Sample Time: | 9:25 |
| Sample Location: | SW-4 | Water Body Sample Type: | Surface Water Sample |
| Sample ID: | SW-4 | Decon (y/n) | |
| Sample Collection Method: | Grab | Velocity(ft3/sec): 0.31 | Flow Rate(gpm): 137.9 |

| | | | |
|---|---|---|---|
| Sample Appearance/Odor: | Clear | Sampler(s): | JO/TJB |
| pH | 7.58 | Temperature | 17.7 |
| Conductivity | 0.785 mS/cm | Salinity | -- |
| Turbidity | 6.4 | Eh | 293 |
| DO | 8.77 | | |
| Sample Bottles ID | SW-4 | 624+10 | |

Notes: HORIBA U-22

Location Sketch




**Stream Location: Watcung Avenue**

| **SW-4** | Width (ft) | Depth (ft) | Velocity (ft/sec) | Stream Flow (ft3/sec) | Stream Flow (gpm) |
|---|---|---|---|---|---|
| #1 | 0.8 | 0.30 | 0.36 | 0.0864 | 38.8 |
| #2 | 0.8 | 0.30 | 0.32 | 0.0768 | 34.5 |
| #3 | 0.8 | 0.30 | 0.14 | 0.0336 | 15.1 |
| #4 | 0.8 | 0.30 | 0.22 | 0.0528 | 23.7 |
| #5 | 0.8 | 0.30 | 0.24 | 0.0576 | 25.9 |
| Total Width | 4.0 | | | 0.3072 | 137.9 |

# TRC Environmental Corp.
# SAMPLE DATA RECORD : Crab Brook

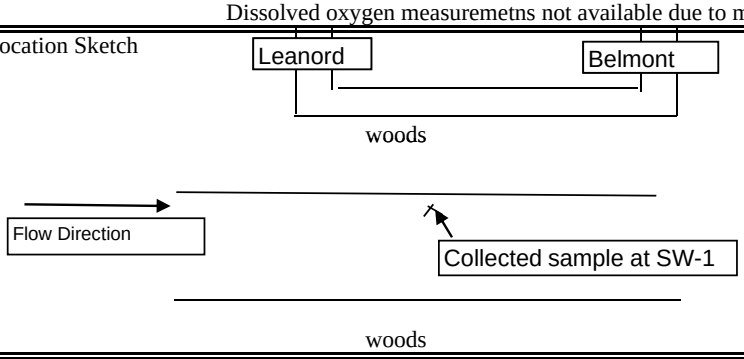
Job # 2542

| | | | |
|---|---|---|---|
| Site ID: | Former LEC Site | Sample Date: | 3/9/2010 |
| Stream Location: | Crab Brook | Sample Time: | 13:00 |
| Sample Location: | SW-1 | Water Body Sample Type: | Surface Water Sample |
| Sample ID: | SW-1 | Decon (y/n) | |
| Sample Collection Method: | Grab | Velocity(ft3/sec): 0.08 | Flow Rate(gpm): 37.8 |

| | | | |
|---|---|---|---|
| Sample Appearance/Odor: | Clear | Sampler(s): | JO/TD |
| pH | 9.20 | Temperature | 11.11 |
| Conductivity | 0.783 mS/cm | Salinity | -- |
| Turbidity | 0.2 | Eh | -87 |
| DO | N/A | | |
| Sample Bottles ID | SW-1 | Sample EPA Method | 624+10 |

Notes: HORIBA U-22
Dissolved oxygen measuremetns not available due to meter malfunction

Location Sketch




**Stream Location: Belmont & Leanord**

| **SW-1** | Width (ft) | Depth (ft) | Velocity (ft/sec) | Stream Flow (ft3/sec) | Stream Flow (gpm) |
|---|---|---|---|---|---|
| #1 | 1.00 | 0.98 | ND | 0.000 | 0.0 |
| #2 | 1.00 | 0.75 | 0.10 | 0.000 | 0.0 |
| #3 | 1.00 | 0.38 | 0.30 | 0.056 | 25.2 |
| #4 | 1.00 | 0.16 | 0.35 | 0.028 | 12.6 |
| Total Width | 4.0 | | | 0.08 | 37.8 |

# TRC Environmental Corp.
# SAMPLE DATA RECORD : Crab brook

Job # 2542

| | | | | | |
|---|---|---|---|---|---|
| Site ID: | Former LEC Site/ Watchung, NJ | | | Sample Date: | 3/9/2010 |
| Stream Location: | Crab Brook | | | Sample Time: | 12:50 |
| Sample Location: | SW-2 | Water Body Sample Type: | | Surface Water Sample | |
| Sample ID: | SW-2 | | Decon (y/n) yes | | |
| Sample Collection Method: | Bailer | Velocity(ft3/sec): 0.15 | | Flow Rate(gpm): | 67.5 |

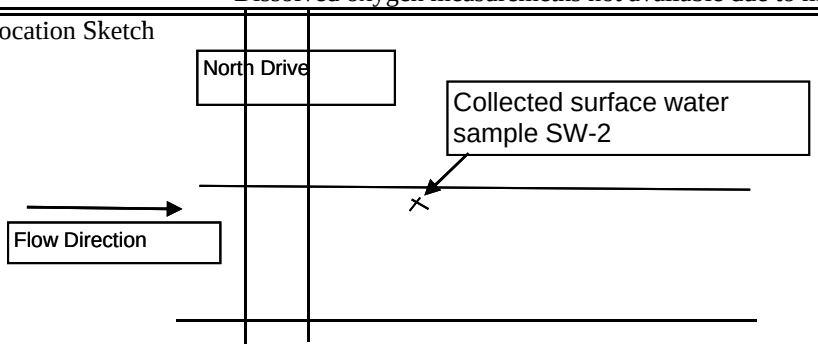
| | | | |
|---|---|---|---|
| Sample Appearance/Odor: | Clear | Sampler(s): | JO/TD |
| pH | 8.41 | Temperature | 11.5 |
| Conductivity | 0.87 | Salinity | --- |
| Turbidity | 0.6 | Eh | -67 |
| DO | N/A | | |

Sample Bottles ID SW-2 Sample EPA Method 624+10

Notes: HORIBA U-22

Dissolved oxygen measuremetns not available due to meter malfunction

Location Sketch




**Stream Location**
**North Drive**

| **SW-2** | Width ft | Depth ft | Velocity ft/sec | Stream Flow ft3/sec | Stream Flow gpm |
|---|---|---|---|---|---|
| #1 | 1.80 | 0.42 | 0.15 | 0.057 | 25.4 |
| #2 | 1.80 | 0.29 | 0.16 | 0.042 | 18.7 |
| #3 | 1.80 | 0.29 | 0.13 | 0.034 | 15.2 |
| #4 | 1.80 | 0.25 | 0.08 | 0.018 | 8.1 |
| #5 | 1.80 | 0.17 | 0.10 | 0.015 | 6.9 |
| Total Width 9.0 | | | | 0.15 | 67.5 |

# TRC Environmental Corp.
# SAMPLE DATA RECORD : Crab Brook

Job # 2542

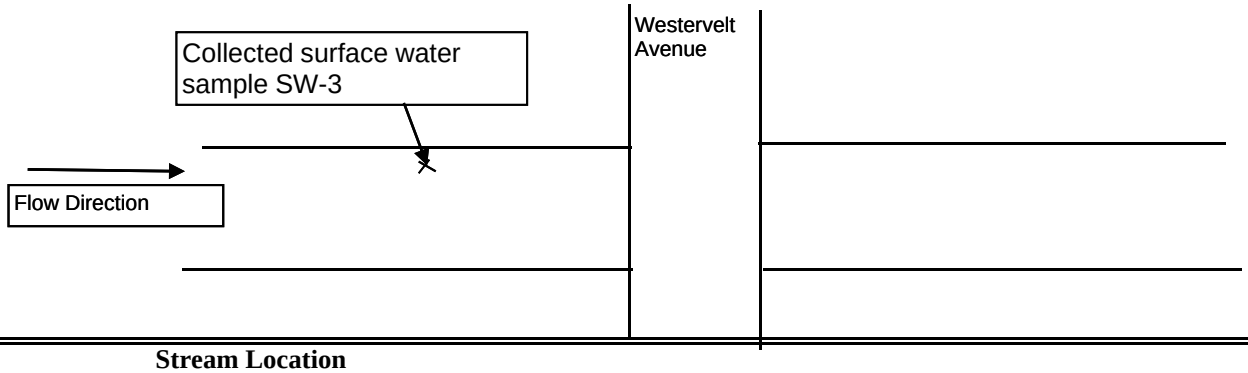
| | | | |
|---|---|---|---|
| Site ID: | Former LEC Site/ Watchung, NJ | Sample Date: | 3/9/2010 |
| Stream Location: | Crab Brook | Sample Time: | 12:20 |
| Sample Location: | SW-3 | Water Body Sample Type: | Surface Water Sample |
| Sample ID: | SW-3 | Decon (y/n) | yes |
| Sample Collection Method: | Bailer | Velocity(ft3/sec): 0.18 | Flow Rate(gpm): 81.68 |

| | | | |
|---|---|---|---|
| Sample Appearance/Odor: | Clear | Sampler(s): JO/TD | |
| pH | 8.68 | Temperature | 11.0 |
| Conductivity | 0.824 | Salinity | --- |
| Turbidity | 0 | Eh | -76.0 |
| DO | N/A | | |
| Sample Bottles ID | SW-3 | Sample EPA Method | 624+10 |

Notes: HORIBA U-22

Dissolved oxygen measuremetns not available due to meter malfunction

Location Sketch




**Stream Location**
**Westervelt Avenue**

| **SW-3** | Width ft | Depth ft | Velocity ft/sec | Stream Flow ft3/sec | Stream Flow gpm |
|---|---|---|---|---|---|
| #1 | 1.40 | 0.30 | 0.30 | 0.1 | 28.3 |
| #2 | 1.40 | 0.40 | 0.20 | 0.1 | 25.1 |
| #3 | 1.40 | 0.45 | 0.10 | 0.0 | 14.1 |
| #4 | 1.40 | 0.45 | 0.10 | 0.0 | 14.1 |
| #5 | 1.40 | 0.40 | 0.10 | 0.0 | 12.6 |
| Total Width 7.0 | | | | 0.18 | 81.7 |

# TRC Environmental Corp.
# SAMPLE DATA RECORD : Crab Brook

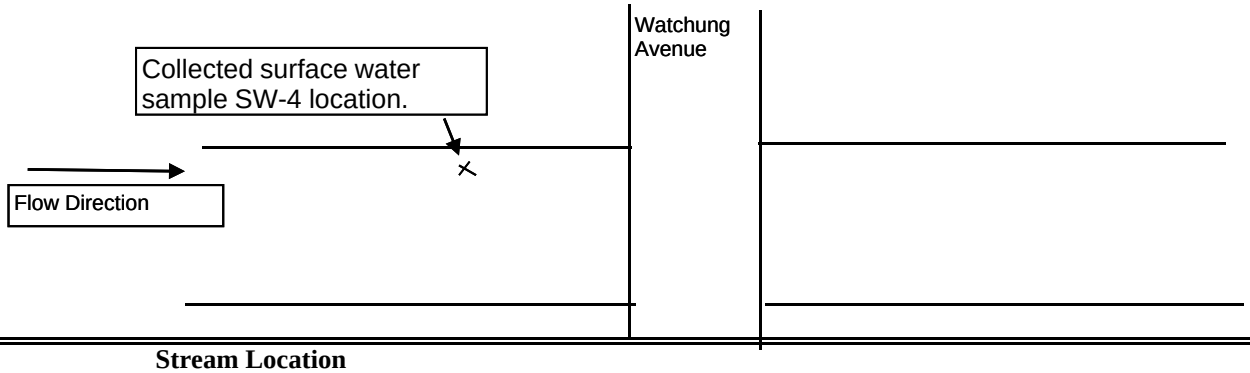
Job # 2542

| | | | |
|---|---|---|---|
| Site ID: | Former LEC Site/ Watchung, NJ | Sample Date: | 3/9/2010 |
| Stream Location: | Crab Brook | Sample Time: | 12:00 |
| Sample Location: | SW-4 | Water Body Sample Type: | Surface Water Sample |
| Sample ID: | SW-4 | Decon (y/n) | |
| Sample Collection Method: | Bailer | Velocity(ft3/sec): 0.20 | Flow Rate(gpm): 88.86 |

| | | | |
|---|---|---|---|
| Sample Appearance/Odor: | Clear | Sampler(s): JO/TD | |
| pH | 7.87 | Temperature | 9.24 |
| Conductivity | 0.878 | Salinity | --- |
| Turbidity | 0.7 | Eh | -45 |
| DO | N/A | | |
| Sample Bottles ID | SW-4 | 624+10 | |

Notes: HORIBA U-22
Dissolved oxygen measuremetns not available due to meter malfunction

Location Sketch




**Stream Location**
**Watcung Avenue**

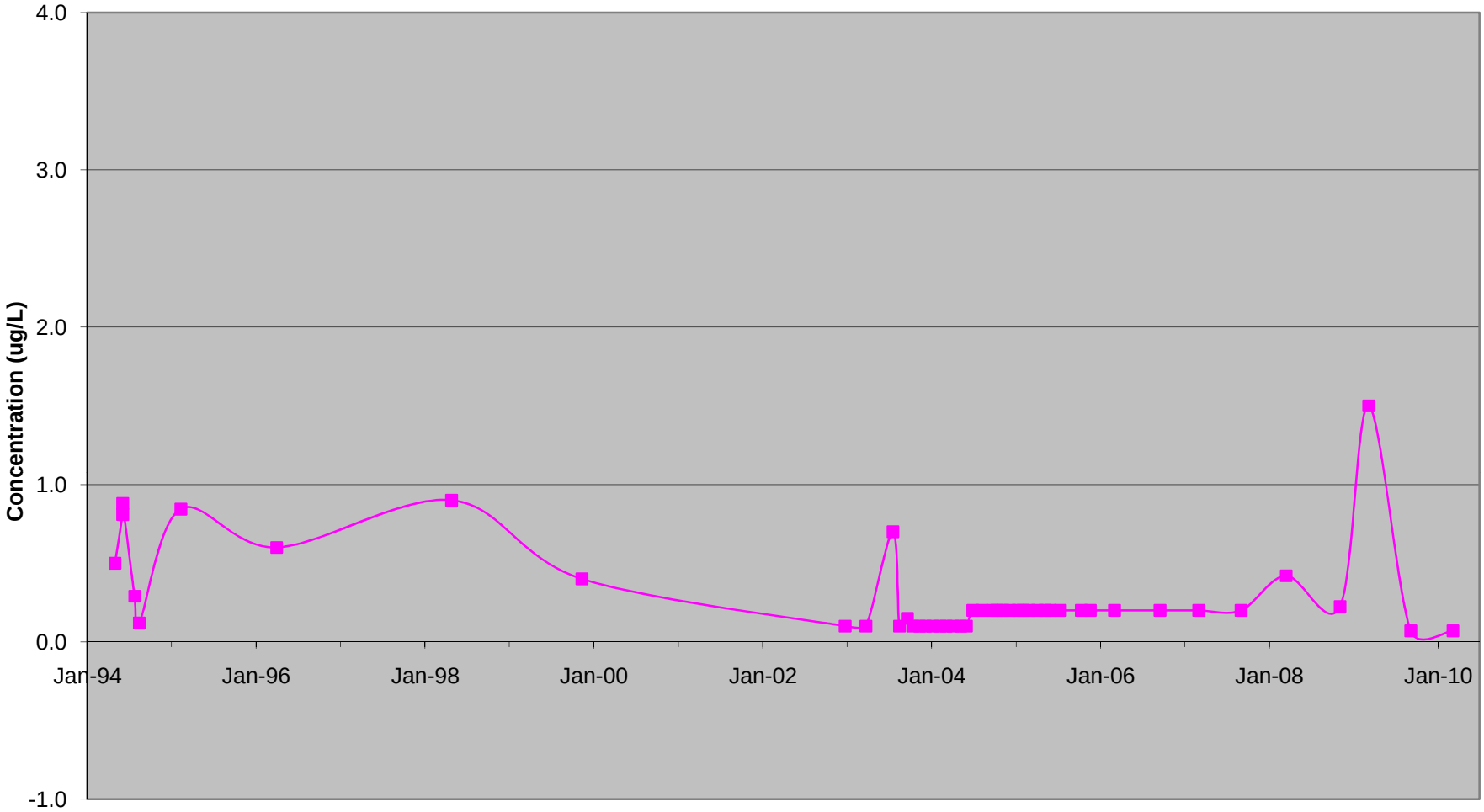
| **SW-4** | Width ft | Depth ft | Velocity ft/sec | Stream Flow ft3/sec | Stream Flow gpm |
|---|---|---|---|---|---|
| #1 | 1.20 | 0.30 | 0.10 | 0.018 | 8.1 |
| #2 | 1.20 | 0.35 | 0.30 | 0.063 | 28.3 |
| #3 | 1.20 | 0.30 | 0.30 | 0.054 | 24.2 |
| #4 | 1.20 | 0.35 | 0.30 | 0.063 | 28.3 |
| #5 | 1.20 | 0.30 | 0.20 | 0.036 | 16.2 |
| Total Width | 6.0 | | | 0.20 | 88.9 |

# APPENDIX D

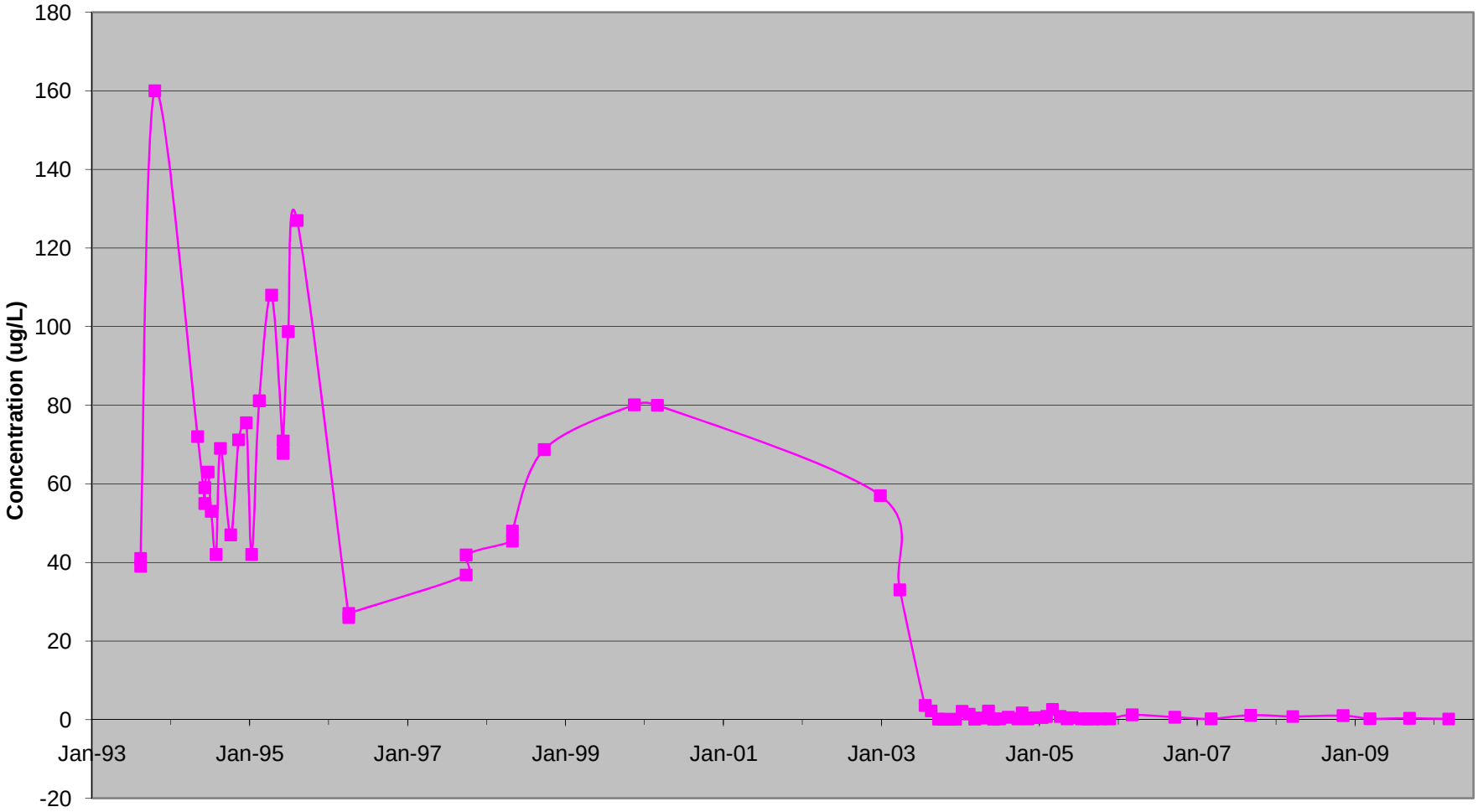
# APPENDIX D

## Plots of TCE Concentration Versus Time for Stream Locations

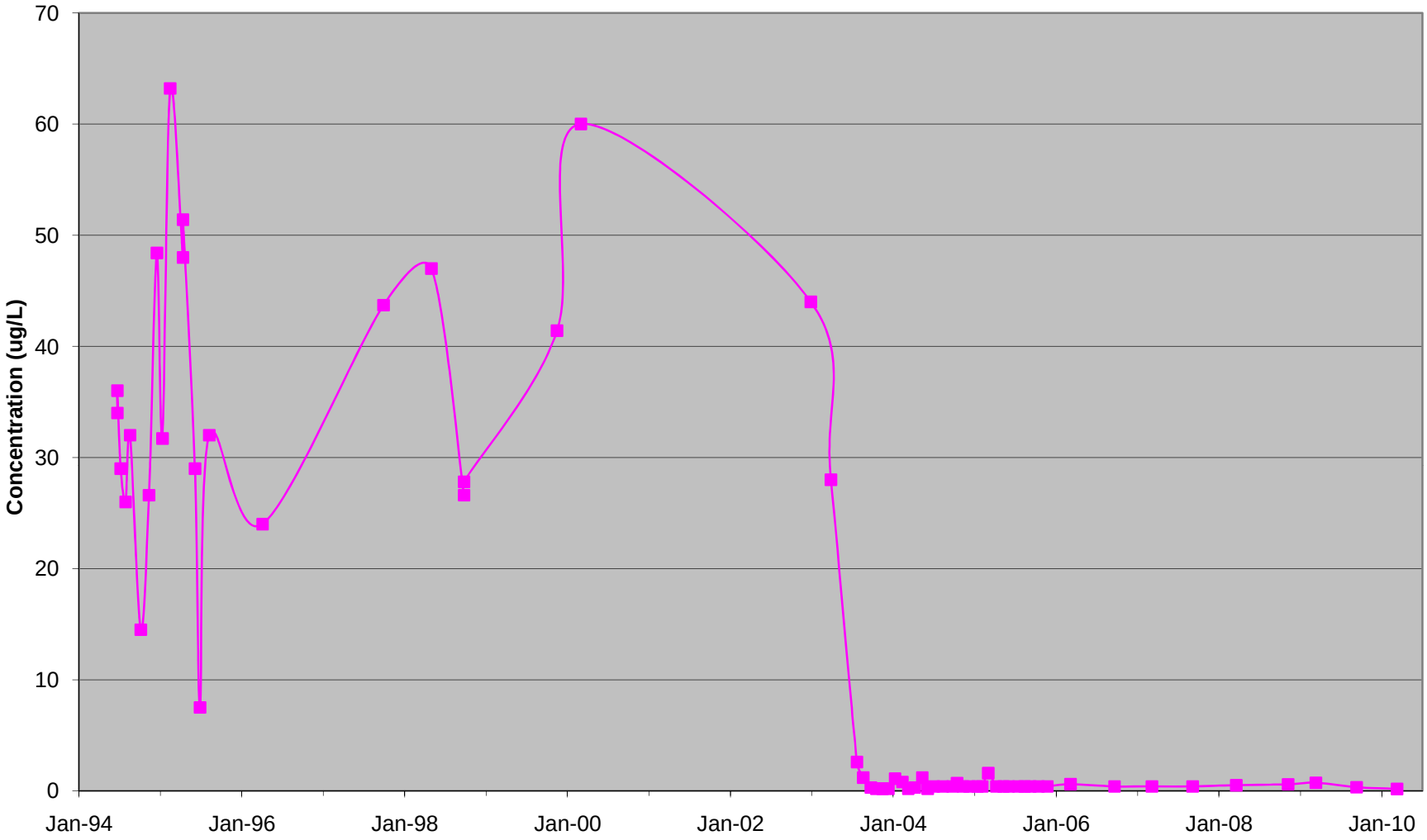
## Historical TCE concentrations at Stream Location SW-1



## Historical TCE concentrations at Stream Location SW-2



## Historical TCE concentrations at Stream Location SW-3



## Historical TCE concentrations at Stream Location SW-4