August 14, 2009

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 2007 and April 2009.

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
Stan Phillips, Lockheed Martin

R\2009 RAPR.doc

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

August 2009

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 Environmental Corporation

Sworn to and subscribed before me on this
_____ day of August 2009.

_____
Notary [seal]

TABLE OF CONTENTS

Section No.	Title	Page No.
1.0	INTRODUCTION	1
2.0	BACKGROUND INFORMATION	2
	2.1 Site Location and Description	2
	2.2 Physical Setting	2
	2.2.1 Topography, Surface Water, and Wetlands	2
	2.2.2 Geology	2
	2.2.3 Hydrogeology	3
	2.3 Site Ownership History and Facility Operations	3
	2.4 Environmental Investigation History	3
	2.5 Well Search	4
	2.6 Baseline Ecological Evaluation	5
	2.7 Area of Concern Summary	5
	2.8 Applicable Remediation Criteria and Standards	5
	2.9 Contact Information	5
3.0	TECHNICAL OVERVIEW	6
	3.1 Remediation Objective	7
	3.2 Sampling Procedures	7
	3.3 Reliability of the Laboratory Analytical Data	7
	3.4 Factors Influencing Data	7
4.0	REMEDIAL ACTION PROGRESS REPORT	8
	4.1 Ground Water Monitoring and Sampling Activities	8
	4.1.1 Water-Level Measurements	8
	4.1.2 Ground Water Sample Collection	9
	4.1.3 Summary of Ground Water Results	10
	4.2 Surface Water Monitoring and Sampling Activities	11
	4.2.1 Surface Water Sample Collection	11
	4.2.2 Summary of Surface Water Results	11
	4.3 System Performance Monitoring and Sampling	12
	4.4 Evaluation of Remediation Progress	12
	4.4.1 Review of Ground Water Monitoring Data	12
	4.4.2 Review of Surface Water Monitoring Data	13
	4.4.3 Review of System Performance Data	14
	4.4.4 Monitoring Well Network Evaluation	14
	4.4.4.1. Determination of Status of Missing Wells	15
	4.4.4.2. Determination of Need for Missing Wells	16
	4.4.4.3. Evaluation of Need for Additional Vertical Delineation Wells	16
	4.4.5 Source Area Evaluation	18
	4.5 Evaluation of Potential for Vapor Intrusion	19
	4.6 Public Notification Activities	21
5.0	CONCLUSIONS AND RECOMMENDATIONS	22

LIST OF FIGURES

Figure No.	Title
1	Site Location Map
2	Site Plan
3	Shallow Zone Contour Map – September 5, 2007
4	Intermediate Zone Contour Map – September 5, 2007
5	Deep Zone Contour Map – September 5, 2007
6	Shallow Zone Contour Map – March 18, 2008
7	Intermediate Zone Contour Map – March 18, 2008
8	Deep Zone Contour Map – March 18, 2008
9	Shallow Zone Contour Map – June 2, 2008
10	Intermediate Zone Contour Map – June 2, 2008
11	Deep Zone Contour Map – June 2, 2008
12	Shallow Zone Contour Map – November 6, 2008
13	Intermediate Zone Contour Map – November 6, 2008
14	Deep Zone Contour Map – November 6, 2008
15	Shallow Zone Contour Map – March 10, 2008
16	Intermediate Zone Contour Map – March 10, 2008
17	Deep Zone Contour Map – March 10, 2008
18	Ground Water Sampling Results September 2003 – March 2009
19	TCE Isoconcentration Map Shallow Zone Ground Water – March and June 2008
20	TCE Isoconcentration Map Intermediate Zone Ground Water – March and June 2008
21	TCE Isoconcentration Map Deep Zone Ground Water – March and June 2008
22	Surface Water Sampling Results July 2003 – March 2009
23	Ground Water Extraction System Performance Summary
24	TCE Plume Cross Section

LIST OF TABLES

Table No.	Title
1	Ground Water and Surface Water Monitoring/Sampling Schedule
2	Ground Water Elevation Data
3	Monitoring Well Construction Details
4	Ground Water Analytical Results - September 2007 through March 2009
5	Historical TCE Concentrations in Ground Water
6	Ground Water Sampling Measurements and Calculations
7	Comparison of Trichloroethene (TCE) Concentrations Prior to and Following Activation of the Ground Water Extraction System
8	Surface Water Analytical Results - September 2007 through March 2009
9	Historical TCE Concentrations at Stream Locations
10	System Performance Summary
11	Summary of Findings – Investigation of Status of Missing Monitoring Wells
12	Summary of Monitoring Well Network Recommendations
13	Implementation Schedule

LIST OF APPENDICES

Appendix	Title
A	NJDEP Contour Map Reporting Forms
B	Plots of TCE Concentration Versus Time for Selected Monitoring Wells
C	Stream Sampling Field Measurements
D	Plots of TCE Concentration Versus Time for Stream Locations
E	Statistical Analysis for Vapor Intrusion Contaminants of Potential Concern, Johnson and Ettinger Modeling for Potential for Vapor Intrusion Conditions

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 September 2007 and March 2009 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), and previous NJDEP comments.

This report discusses the sampling methods and results for the remedial program completed from September 2007 through April 2009. 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 action and Section 5.0 presents the conclusions and recommendations.

2.0 BACKGROUND INFORMATION

2.1 Site Location and Description

The Site is a parcel of land approximately 80 acres in size located north of US Route 22 in the boroughs of Watchung and North Plainfield, Somerset County, New Jersey. Following cessation of activities at the Site by the LEC, it was re-developed as a shopping center, and is currently known as the Watchung Square Mall. Figure 1 provides a map showing the locaiton 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. The Route 22 strip borders the Site to the east, and is predominately commercial with residential properties located on side streets. An apartment complex is located west of the Site. Forested areas and residences border the Site to the north, and wetlands-mapped areas and commercial properties border the Site to the south across Route 22.

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 was 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 was 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 P-524 and MW-542.

2.2.3 Hydrogeology

Ground water at 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). At the site itself, ground water is found only within the bedrock; further downgradient, the shallow zone includes thin layers of saturated overburden. Under natural conditions contaminant migration within the bedrock aquifer is influenced by both bedrock structure and local ground water discharge areas, particularly Crab Brook. The ground water in the bedrock enters the Site from the east, flows to the southwest (along bedrock strike), and then trends in a more southerly direction toward Crab Brook and beyond.

Ground water in the shallow water table zone flows across the Site under an average horizontal gradient of 0.002 feet per foot (ft/ft). Ground water gradients in the shallow system steepen significantly (up to 0.018 ft/ft) southwest of the Site.

The potentiometric surface contours in the deep zone are slightly more uniform in gradient and direction than the shallow and intermediate zones, and suggest a more uniform flow system with depth in the bedrock. The direction of ground water flow is to the south at an average horizontal gradient of 0.004 ft/ft. With the exception of the area near Crab Brook east of North Drive, vertical gradients are generally downward under static conditions. Shallow ground water discharges to Crab Brook during periods of normal ground water levels.

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, test, and assemble 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 in 1996 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.

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.

To remediate the ground water plume and intercept ground water base flow to Crab Brook, the Site ground water extraction system (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 it 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 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 ground water Classification Exception Area (CEA) biennial certification, in August 2007 TRC submitted a request to the NJDEP Bureau of Water Allocation for a 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 (located immediately southwest of the Site) prior to the construction of this apartment complex, and was likely abandoned or lost during the construction of the Crystal Ridge Club apartments.

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[1] for purposes of defining the applicable NJDEP Surface Water Quality Criteria (SWQC). Crab Brook, an unlisted tributarty 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.

Lead Responsible Party/ Consultant TRC Environmental Corp.	57 East Willow Street Millburn, NJ 07041	Stephen E. Tappert 973.564.6006 x 240 Scott McCray 973.564.6006 x 287
Current Site Owner/Operator Watchung Square Assoc., LLC	641 Shunpike Road Chatham, NJ 07928	Frank Cosentino 973.966.2800
Former Site Owner Lockheed Electronics Corp.	2950 N. Hollywood Way, Suite 125 Burbank, CA 91505-1072	Stan Phillips 817.763.7629

[1] FW2-NT classification includes all fresh surface waters not classified as FW-1 or Pinelands fresh water that have not been designated for trout production or maintenance.

3.0 TECHNICAL OVERVIEW

The last progress report, submitted in September 2007, presented data collected from June 2006 through August 2007. Four semi-annual sampling events have occurred since the last report submittal (September 2007, March 2008, November 2008, and March 2009). 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 2007 through March 2009. 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.

Following the completion of the September 2007 and March 2008 semi-annual sampling events, a meeting between the NJDEP and TRC was held on May 15, 2008. At the May 15, 2008 meeting and in their June 24, 2008 letter, the NJDEP requested the following additional activities:

- An evaluation of the Site's monitoring well network to determine the location and status of monitoring wells that have not been located since on-Site and/or off-Site construction activities;
- The sampling of all monitoring wells not included on the NJDEP-approved sampling schedule for the purpose of comparison to the 2003 ground water model predictions;
- The revision of the 2003 ground water model predictions based on the data gathered between 2003 and 2008;
- An evaluation of remedial technologies that may be used to further reduce ground water contaminant concentrations in the vicinity of monitoring well cluster MW-549; and
- An evaluation of the potential for vapor intrusion (VI) within structures near the contaminant plume.

In response to the NJDEP's requests, in June 2008 TRC completed a ground water sampling event of the LEC Site's monitoring wells located in North Plainfield and Watchung that are not included in the NJDEP-approved sampling schedule. Additionally, a surface geophysical survey consisting of ground penetrating radar and electromagnetic survey techniques was completed at the location of each well whose location has become obscured due to on-Site or off-Site construction activities, to determine the well's location and status, if possible. Findings of these activities are presented Section 4.1.3 and 4.4.4 of this report, respectively.

A discussion concerning the reduction of ground water contaminant concentrations in the vicinity of well cluster MW-549 is included in Section 4.4.5 of this report.

An evaluation of the potential for VI into structures proximal to the Site's ground water plume is presented in Section 4.5.

The findings of the June 2008 ground water sampling event were planned for use in conjunction with Site semi-annual sampling data to verify and revise contaminant fate and transport predictions from the Site 2003 ground water model. However, due to corruption of the electronic files associated with the 2003 ground water model, it was not possible to prepare an update to the Site ground water model for inclusion in this RAPR. TRC will transmit a letter report containing revised ground water model predictions under separate cover.

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 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 2007 ground water samples were submitted to Severn Trent Laboratories, Inc. (STL) of Edison, New Jersey, a New Jersey-certified laboratory (now TestAmerica Laboratories, Inc [TestAmerica] of Edison, New Jersey), a New Jersey-certified laboratory. The March 2008, June 2008, November 2008, and March 2009 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

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. Currently, quarterly effluent sampling 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, as described in the following subsections.

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 2007 through March 2009.

4.1 Ground Water Monitoring and Sampling Activities

Ground water monitoring and sampling events were conducted in September 2007, March 2008, November 2008, and March 2009 in accordance with the sampling schedule presented in Table 1[2]. Additionally, 19 monitoring wells within the Site monitoring well network but not included on the NJDEP-approved sampling schedule were sampled in June 2008 for the purpose of comparison to the 2003 ground water model predictions. Results for the sampling events are presented in the sections below.

4.1.1 Water-Level Measurements

Water level measurements were collected on September 5, 2007, March 18, 2008, June 2, 2008, November 6, 2008, and March 10, 2009 at selected monitoring wells associated with the Site. Table 2 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 (overburden/shallow bedrock) zone, the intermediate zone, and the deep zone are depicted on Figures 3 through 17, using the hydrostratigraphic classification presented in Table 3. 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 17 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

[2] One well (MW-506A) was not accessible during the March 2008 event, and therefore was sampled in June 2008 to supplement the March 2008 dataset.

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 [3]. 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-546A and MW-547A) (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 2 and on Figures 3 through 17 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 2007, March 2008, June 2008, November 2008, and March 2009 sampling events are provided in Table 4 and on Figure 18, 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 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 2007, March 2008, November 2008, and March 2009), 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.

During the June 2008 ground water sampling event, which targeted wells not included in the approved monitoring program, each well was purged using the conventional (3 volume purge) sample method, and ground water samples were collected from dedicated disposable bailers following well purging, in accordance with the FSPM. Ground water samples were transferred

[3] The results of the TRC 48-hour pumping test of RW-1 in 2000 are presented in the TRC June 2004 Remedial Investigation Report Addendum

from bailers to the appropriate laboratory-supplied bottleware for laboratory analysis of VOCs using EPA Method 624. Ground water sampling measurements and calculations for the June 2008 ground water sampling event are provided in Table 6.

4.1.3 Summary of Ground Water Results

Semi-Annual Ground Water Sampling Events

The highest TCE concentrations reported during the four semi-annual ground water sampling events were from on-site wells MW-549A and MW-549B, located in the former source area and are hydraulically upgradient from the ground water extraction well (RW-1). TCE ground water concentrations in samples from MW-549A ranged from 714 µg/L to 850 µg/L. TCE ground water concentrations in samples from MW-549B ranged from 724 µg/L to 1,000 µg/L. Other monitoring wells with ground water TCE concentrations above 100 µg/L included MW-506A, MW-507A, MW-546A, MW-550B, and MW-550C. During the four semi-annual ground water sampling events, downgradient well clusters MW-544 and MW-545 reported single digit or non-detectable concentrations of TCE, the contaminant of concern for the Lockheed site.

Additional ground water contaminants, including chloroform, tetrachloroethene (PCE), and 1,1-dichloroethane, have been detected in some of the sampled wells at relatively low concentrations; however, these contaminants are not associated with the former LEC site. Additionally, their concentrations and distribution do not suggest an association with the Site's TCE plume. However, these data do suggest that there are other VOC sources degrading ground water quality in the general vicinity of the Site's plume.

June 2008 Ground Water Sampling Event

TCE concentrations reported for the June 2008 ground water sampling event ranged from non-detectable levels to 88.1 µg/L (well P-521B).

Comparison of Historical and Recent Ground Water Sampling Results

Prior to the 2008 data set, the last comprehensive ground water sampling event was completed in November 1999, prior to activation of the GWES. A comparison of the November 1999 and March 2008/June 2008 ground water sampling results is presented in Table 7. Comparing the March and June 2008 ground water sampling results to the November 1999 ground water sampling results, the sample results from 21 wells were significantly lower (more than 50% lower) in 2008 than in November 1999, suggesting that the GWES has significantly reduced contaminant concentrations in these locations. Sample results from three of the most contaminated wells (MW-549A, MW-549B, and MW-550C) were also lower by more than 25% compared to historical (2003) results[4]. TCE concentrations in samples collected at seven locations in March or June 2008 were generally comparable to their corresponding November 1999 results, and five of these locations are either upgradient of the site (MW-532A) or sidegradient of the contaminant plume (MWs -501A, -501B, -503B, -504A, and -504B). Wells P-521B and MW-546A, located downgradient of extraction well RW-1, also contained similar TCE concentrations in 2008 samples as they did in November 1999. Analytical results from the

[4] Wells MW-549A, MW-549B, MW-550B, and 550C were not installed until 2003, and therefore 2003 ground water sampling data has been used in this results comparison. At the source area cluster 549, the decline in concentration compared to wells previously installed and abandoned at that same location due to construction (548 series) is greater than 80%.

March 2009 sampling event for well MW-546A contained the lowest TCE concentrations detected in this well to date. Based upon the pumping test data, this well is located at the limit of influence from the recovery well. While it is likely that the GWES has reduced the influx of contaminant mass to this well cluster, continued ground water monitoring will be required to determine whether the recently-noted contaminant reduction at this well location is sustainable.

Figures 19 through 21 present TCE isoconcentration contours from the March 2008 and June 2008 combined sampling events. As shown on Figures 19 through 21, the highest TCE concentrations observed (i.e., greater than 100 µg/L contour line) define an oblong ground water plume that extends from the former source area at the Site toward the extraction well RW-1. As shown on Figure 19, shallow ground water TCE concentrations decrease south of RW-1, and are below 1 µg/L within 1,000 feet downgradient of RW-1. As shown on Figure 20, intermediate ground water TCE concentrations also decrease to the south of RW-1, with the exception of well P-521B, as discussed above. As shown on Figure 21, deep ground water TCE concentrations appear to be less affected by the GWES, with TCE concentrations exceeding 100 µg/L at monitoring well MW-546A, located 1,500 feet downgradient of extraction well RW-1.

Additional discussion regarding the impact of the operation of the GWES on ground water TCE concentrations is presented in Section 4.4.

4.2 Surface Water Monitoring and Sampling Activities

During the September 2007, March 2008, November 2008, and March 2009 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 2007, March 2008, November 2008, and March 2009 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.

The surface water samples were analyzed for VOCs using EPA Method 624. The surface water analytical results are presented in Table 8 and on Figure 22. 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 9, in Appendix D, and on Figure 22. The concentration of TCE at surface water location SW-1 ranged from non-detectible concentrations (ND) to 1.5 µg/L in the surface water samples collected between September 2007 and March 2009. One result (1.5 µg/L, from the SW-1 surface water sample collected in March 2009) was slightly above the FW2-NT SWQC for TCE (1.09 µg/L). This result is anomalous compared to historical results for this location.

The concentration of TCE at surface water location SW-2 ranged from non-detectible concentrations (ND) to 1.1 µg/L in the surface water samples collected between September 2007 and March 2009. One result (1.1 µg/L, from the SW-2 surface water sample collected in March 2009) was slightly above the FW2-NT SWQC. The concentrations of TCE at surface water locations SW-3 and SW-4 ranged from non-detectible concentrations (ND) to 0.73 µg/L in the

surface water samples collected between September 2007 and March 2009, and were all below the FW2-NT SWQC.

4.3 System Performance Monitoring and Sampling

Performance sampling results are presented in Table 10. Influent TCE concentrations for this reporting period (April 2007 through March 2009) ranged from 74 µg/L (April 2007) to ND (October 2008). Effluent TCE concentrations during this monitoring period ranged from 1.3 µg/L (December 2007) to 3.6 µg/L (March 2009), below the NJPDES permit effluent limit for TCE of 5.4 µg/L. No NJPDES effluent sample has ever exceeded its permitted concentration for any monitored compound.

4.4 Evaluation of Remediation Progress

To date, the GWES has been in nearly continuous operation for more than 5 years, a sufficient operational history to evaluate remedial progress. To evaluate remedial progress, a review of ground water monitoring data, surface water monitoring data, and GWES monitoring data has been completed to determine GWES performance and influence on the bedrock aquifer and TCE plume. Additionally, an evaluation of the adequacy of the current monitoring well network has been completed. A discussion of each of these points is provided below.

4.4.1 Review of Ground Water Monitoring Data

Shallow Zone:

Table 7 presents a comparison of ground water TCE concentrations in samples collected in November 1999 (prior to GWES activation) and March-June 2008. As shown on Table 7, the ground water TCE concentrations at 16 of the 19 monitoring wells that monitor the shallow zone either experienced a reduction of greater than 50% in their TCE concentration since the start-up of the GWES, or attained ground water TCE concentrations below the GWQS. One additional well located near to the source area (MW-550C) has also experienced a reduction in TCE concentration since GWES activation. Only the two wells located closest to Crab Brook (MW-501B and MW-503B) did not experience a reduction in ground water TCE concentrations.

Figure 19 presents a TCE isoconcentration map depicting the concentrations of TCE in shallow zone ground water samples collected in March and June 2008. As shown on Figure 19, the TCE concentrations in ground water samples from all 7 shallow zone monitoring wells located hydrologically downgradient of the GWES were below the GWQS of 1 µg/L. As shown on Table 7, six of these wells (MW-544C, MW-545C, MW-546C, MW-547C, P-521C, and P-522C) contained TCE concentrations above the GWQS for TCE in November 1999, prior to GWES activation.

Based on a review of shallow zone ground water monitoring data, the GWES appears to be highly effective at intercepting TCE-impacted shallow ground water, and thus has reduced the areal extent of the shallow ground water plume to the area located between the Site and RW-1.

Intermediate Zone:

As shown on Table 7, the ground water TCE concentrations at 14 of the 18 monitoring wells that monitor the intermediate zone either experienced a reduction of greater than 50% in their TCE concentration since the start-up of the GWES, or attained ground water TCE concentrations below the GWQS. Two additional wells, located near to the source area (MW-549A and MW-

550B) have also experienced a reduction in TCE concentration since GWES activation. Two wells (MW-501A and P-521B) did not experience a reduction in ground water TCE concentrations.

Figure 20 presents a TCE isoconcentration map depicting the concentrations of TCE in intermediate zone ground water samples collected in March and June 2008. As shown on Figure 20, the TCE concentrations in ground water samples from 7 of the 8 intermediate zone monitoring wells hydrologically downgradient of the GWES were below 10 µg/L. As shown on Table 7, in four of these wells (MW-546B, MW-547B, P-522B, P-523B,) the TCE concentration declined more than 90% compared to November 1999, prior to GWES activation. An additional well (P-524B) experienced a 50% reduction in TCE concentration between 1999 and 2008, and two wells (MW-544B and MW-545B) did not contain TCE concentrations above the GWQS during either the 1999 or the 2008 sampling events.

Based on a review of intermediate zone ground water monitoring data, the GWES appears to be effective at intercepting TCE-impacted intermediate ground water, and thus has significantly reduced TCE concentrations in the intermediate ground water plume.

Deep Zone:

As shown on Table 7, the ground water TCE concentrations at 5 of the 8 monitoring wells that monitor the deep zone either experienced a reduction of greater than 50% in their TCE concentration since the start-up of the GWES, or attained ground water TCE concentrations below the GWQS. One well that did not experience a decrease in TCE concentration between 1999 and 2008 (MW-532A) is located approximately 200 feet upgradient of the source area, and therefore would not be expected to be significantly affected by the GWES. One well (P-522A) experienced a slight increase in concentration (0.9 µg/L in November 1999 verses 2.4 µg/L in 2008); however, the increase is not significant in concentration. Finally, one well (MW-546A) experienced an 11% decrease in concentration between 1999 and 2008. Samples from this well collected in March 2009 indicate additional reduction in TCE concentration at this well (43% reduction when compared to the 1999 sample TCE concentration). The March 2009 sample result is the lowest TCE concentration ever measured at this well,

Figure 21 presents a TCE isoconcentration map depicting the concentrations of TCE in deep zone ground water samples collected in March and June 2008. As shown on Figure 21, all deep zone monitoring wells downgradient from the GWES (except for MW-546A) either contain TCE concentrations near or below the GWQS of 1 µg/L, or do not contain measurable concentrations of TCE in 2008. Based on a review of deep zone ground water monitoring data, it appears that the deep ground water plume is either stable or reducing in size. Continued ground water monitoring will be required to determine the extent of the GWES influence on the deep zone.

4.4.2 Review of Surface Water Monitoring Data

As shown in Table 9, on Figure 22, and in Appendix D, surface water samples collected from Crab Brook prior to the start-up of the GWES were typically more than 10 times the FW2-NT SWQC for TCE (1.09 µg/L). Since the activation of the GWES in July 2003, significant decreases in TCE concentrations at sampling locations SW-2, SW-3 and SW-4 were observed, as shown on graphs of historical TCE concentrations versus time (Appendix D), and are typically either near or below the FW2-NT SWQC. This indicates that the GWES is effective at

intercepting TCE-impacted ground water prior to its discharging as base flow to Crab Brook, as it did prior to July 2003.

4.4.3 Review of System Performance Data

Table 10 provides a summary of GWES performance data. As shown in Table 10, the highest influent TCE concentrations were detected during the first year of operation, and have slowly dropped since the Fall of 2004. Since July 2008, influent TCE concentrations have been relatively stable, ranging from 1.0 µg/L to 1.5 µg/L. Over the GWES operations period, pumping rates have averaged approximately 120 gallons per minute.

Figure 23 provides a graphical summary of the GWES influent TCE concentrations and extraction well (RW-1) ground water levels from June 2003 to March 2009. As shown on Figure 23, ground water levels at RW-1 (as measured during well pumping) have gradually lowered since the start-up of the GWES. This lowering of the ground water table at RW-1 corresponds with reductions in GWES influent TCE concentrations. Additionally, in many instances, higher extraction well water levels correlate to higher TCE concentrations. These findings were anticipated prior to the activation of the GWES, as noted by TRC in the June 2004 *Remedial Investigation Addendum Report.*

TRC's March 2000 *Remedial Action Workplan (RAW)* proposed the GWES, with the goals that it would control downgradient migration of the TCE plume and reduce the concentrations of TCE in Crab Brook. As noted above, the GWES has met these objectives. It has reduced the size and the concentration of the TCE plume in areas downgradient of the GWES, and has been effective at capturing TCE-impacted ground water that would otherwise have become base flow to Crab Brook. However, the continued downward trend in GWES influent TCE concentrations and RW-1 ground water levels suggest that the GWES may not be pumping ground water at an optimal rate for contaminant mass removal from the source area. While source area contaminant mass removal was not an objective of the March 2000 *RAW*, it may now be appropriate to investigate whether the GWES's pumping rate may be altered to continue to meet the March 2000 *RAW's* objectives, and also draw additional contaminant mass into the GWES from the upgradient source area. An evaluation of the potential to improve contaminant mass removal by alteration of the pumping rate of the GWES will be included in the revised ground water model, to be submitted under separate cover.

4.4.4 Monitoring Well Network Evaluation

In their June 24, 2008 letter, the NJDEP required the evaluation of the Site's monitoring well network to determine the status of monitoring wells that had been previously reported as missing. Additionally, the NJDEP required an evaluation of the Site's monitoring well network to address their requirement for additional vertical delineation of the TCE plume. These evaluations are presented below.

Table 3 presents a summary of ground water monitoring well constructions by hydrostratigraphic units. As shown in Table 3, the ground water monitoring well network is divided into three hydrostratigraphic units. The shallow zone is defined as the saturated overburden (where present) and bedrock from the water table interface to an elevation of approximately 50 feet amsl. The intermediate zone is the area of bedrock from 50 ft amsl to 50 ft bmsl. The deep zone is the area of bedrock below approximately 50 ft bmsl. As shown on Table 3, the current monitoring well network (including monitoring wells previously reported as missing) is

comprised of 24 wells within the shallow zone, 20 wells within the intermediate zone, and 11 wells within the deep zone.

Generally, the summary of monitoring wells as presented in Table 3 matches the previous hydrostratigraphic well classification presented in previous submittals; however there are three exceptions, as follows:

- Monitoring well MW-532B is screened at approximately 92 to 82 ft amsl, and is therefore within the shallow zone, not in the intermediate zone;
- Monitoring well MW-549B is screened at approximately 90 to 70 ft amsl, and is therefore within the shallow zone, not in the intermediate zone; and
- Monitoring well MW-549A is screened at approximately 11 to 31 ft bmsl, and is therefore within the intermediate zone, not in the deep zone.

As part of the monitoring well network evaluation, TRC evaluated every existing monitoring well based on its historical (November 1999) contaminant levels (as reported in TRC's February 2000 *Remedial Investigation Addendum Report* [RIAR][5]), recent contaminant levels, usefulness in evaluating GWES performance, and usefulness in evaluating ground water flow directions. Based on these criteria, seven monitoring wells provide little benefit to the ongoing ground water monitoring program. Specifically, the MW-501 and MW-503 clusters provide little information about the plume that is not already provided by the MW-504 and MW-505 clusters, which are included in the monitoring network. The MW-531 cluster is upgradient of the TCE plume, and located too far to the south of the plume axis to define the upgradient edge of the TCE plume. Finally, well PZ-523B appears to be sidegradient of the plume axis, and provides little information not attainable from wells MW-544B, MW-545B, PZ-522B, and PZ-524B.

Recommendations concerning these wells are presented in Section 5.0.

4.4.4.1 Determination of Status of Missing Monitoring Wells

There are a total of 15 monitoring wells that have been reported as missing in previous submittals. To determine the status of these monitoring wells, on April 4, 2008, the location of each of the 15 missing monitoring wells was determined by Casey and Keller (a licensed land surveyor). On May 7, 2008, each location was screened by National Subsurface Investigation Services (NSIS) (Somerset, NJ), using both electromagnetic and ground penetrating radar geophysical techniques, to attempt to locate the missing wells. Table 11 presents the findings of these well location activities. As shown on Table 11, five wells (MW-501A, MW-501B, MW-503A, MW-503B, and MW-504B) were found. The remaining wells could not be found, and appear to have been destroyed by construction activities. Specifically, wells MW-509A, MW-509B, MW-510A, and MW-510B appear to have been destroyed during the re-development of the Site into the Watchung Square Mall. Wells MW-542A, MW-542B, and W-542C appear to have been destroyed during expansion of North Plainfield's Somerset School. Wells PZ-523A and PZ-523C appear to have been destroyed during construction of an adjacent bridge over

[5] Since the MW-549 and MW-550 had not been installed, during the November 1999 comprehensive ground water sampling event, data for the evaluation of the these wells was obtained from their first sampling event following their installation.

Stony Brook. It is not known whether well MW-549C remains at the Site (buried below a 6-foot high earth berm), or it was also destroyed during the construction of the Watchung Square Mall.

4.4.4.2 Determination of Need for Missing Monitoring Wells

As part of the monitoring well network re-evaluation, TRC evaluated the necessity of every missing monitoring well based on its historical (November 1999) contaminant levels reported in TRC's February 2000 RIAR[6], potential usefulness in evaluating GWES performance, and potential usefulness in evaluating ground water flow directions. This evaluation is summarized on Table 12. Based on this evaluation, TRC found that the missing wells described in section 4.4.4.1 were of limited usefulness in evaluating the ground water contaminant plume, GWES performance, and ground water flow direction. Most of these wells (MW-509B, MW-510B, MW-542A, MW-542B, MW-542C, PZ-523A, and PZ-523C) contained low (less than 10 µg/L) TCE concentrations prior to the activation of the GWES, as documented by the November 1999 analytical results (Table 7). Wells MW-509A and MW-510A are located at the Site in upgradient edges of the TCE plume, in locations beyond which the contaminant plume would not be expected to extend. Well MW-549C is located at the Site in the vicinity of the source area; however its well screen is within the same hydrostratigraphic unit as well MW-549B, and its historical TCE concentrations are significantly lower than those at MW-549B, indicating that MW-549B is the more significant monitoring well at this location and hydrostratigraphic interval.

Recommendations concerning these wells are presented in Section 5.0.

4.4.4.3 Evaluation of Need for Additional Vertical Delineation Wells

In their June 24, 2008 letter, the NJDEP recommended the installation of deeper monitoring wells at monitoring well clusters MW-507, MW-546, MW-549, and MW-550 for purposes of providing additional delineation of the TCE plume. TRC has evaluated the NJDEP's recommendations; however, TRC's evaluation indicates that the current monitoring well network and existing Site data are sufficient to define the vertical extent of the TCE plume. A discussion of the each well cluster is presented below.

MW-507 Well Cluster:

The location of the MW-507 well cluster is on East Drive, at the western edge of the contaminant plume (Figures 2, 19, and 20). The deeper well in this cluster (MW-507A) screens the intermediate zone. Since the GWES activation in 2003, ground water TCE analytical results from MW-507A have fluctuated (from 47.9 µg/l to 1,100 µg/l) at this location, but have generally been decreasing (Table 5, Appendix B). The most recent ground water sampling result (March 2009) contained the lowest TCE concentration ever measured at this well (47.9 µg/l).

Approximately 800 ft closer to the Site on East Drive is the MW-508 cluster. The deeper well in this cluster (MW-508A) screens the deep zone. Since the GWES activation in 2003, ground water TCE analytical results from MW-508A have dropped from 30 µg/l to 4.5 µg/l.

[6] Since the MW-549 and MW-550 well clusters had not been installed during the November 1999 comprehensive ground water sampling event, data for the evaluation of the these wells was obtained from their first sampling event following their installation.

Given this trend in analytical data from the MW-507 and MW-508 well clusters, and given the proximity of the MW-507 well cluster to the MW-508 well cluster, no deeper well is needed at the MW-507 well cluster. The deep zone is already monitored in this area by MW-508A. Additionally, ground water sampling data suggests that TCE concentrations are reducing in this area. As such, a deeper monitoring well at the MW-507 cluster would not be expected to yield any new data concerning the distribution of TCE.

MW-546 Well Cluster:

The location of the MW-546 well cluster is located near the intersection of Windsor Street and Hudson Avenue, at the western edge of the contaminant plume (Figures 2, 19, 20, and 21). The deepest well in this cluster (MW-546A) screens the deep zone. Since the GWES activation in 2003, ground water TCE analytical results from MW-546A have fluctuated (from 74.6 µg/l to 120 µg/l) at this location, and have generally been decreasing since September 2005 (Table 5, Appendix B). The most recent ground water sampling result (March 2009) contained the lowest TCE concentration ever measured at this well (74.6 µg/l).

Figure 24 presents a cross section of the TCE plume area. On this figure, current Site wells are depicted. As shown on Figures 21 and 24, the MW-546 well cluster location appears to be the leading edge of the TCE plume in the deep zone. TCE concentrations at existing downgradient well PZ-522A have generally been below 5 µg/l since the well was installed in 1994 (Table 5), and TCE concentrations at former well P-523A, directly downgradient of MW-546A and screened in the same vertical interval, were never reported at concentrations above 2.3 µg/l (September 1998). Deep wells located farther downgradient that monitor the same vertical zone or deeper (MW-544A, P-524A, and MW-545A) report concentrations of TCE below the GWQS. As shown on Figure 24, the MW-546 well cluster location represents the leading edge of the plume in the deep zone and the plume dissipates before reaching the next active downgradient deep well (P-522A). Given the duration of this plume (decades), and the lack of downgradient impact in the deep zone, vertical delineation of the contaminant plume is not necessary at the MW-546

MW-549 and MW-550 Well Clusters (Plume Center):

The location of the MW-549 well cluster is at the southern edge of the Site, at the source area (Figures 2, 19, and 20). The deeper well in this cluster (MW-549A) screens the intermediate zone. Excluding one anomalously low sampling result (June 2005), ground water TCE analytical results from MW-549A have ranged from 714 µg/l to 1,100 µg/l, and have displayed a decreasing trend since October 2005 (Table 5, Appendix B).

The MW-550 cluster is located approximately 1,000 ft downgradient of the MW-549 cluster. The deeper well in this cluster (MW-550B) also screens the intermediate zone. Excluding one anomalously high sampling result (September 2004), ground water TCE analytical results from MW-550B have ranged from 494 µg/l to 860 µg/l, and have generally been on a decreasing trend (Table 5, Appendix B).

Figure 24 presents a cross section of the TCE plume area. On this figure, current Site wells are depicted, as well as a former (now properly abandoned) well designated MW-232A. Sevee and Maher's July 1995 *Remedial Investigation Report and RAW* indicates that well MW-232A was 330 feet deep (screened in the deep zone at an approximate screen elevation interval of 156 to 166 ft bmsl), and that the analytical results of a ground water sample collected in December 1994

contained 27 µg/L of TCE. At this time, shallow ground water in this area of the Site contained TCE concentrations well in excess of 10,000 µg/L, and remediation of the soil source area had not been completed. Since that time, soil remediation has been completed, and shallow ground water TCE concentrations have dropped below 1,000 µg/L. It is reasonable to conclude that the depth interval that MW-232A formerly screened within the deep zone would be expected to experience either stable or (more likely) reduced TCE concentrations over time, compared to the December 1994 analytical result, and following the trend for the shallower wells in this area (MW-549A and MW-549B). Thus, based on the ground water sample results from this former well, vertical delineation of TCE is anticipated to be at a depth of approximately 170 to 180 ft bmsl in the vicinity of the MW-549 cluster (the source area) and the MW-550 cluster, and not expected to be deeper at any other locations within the TCE plume, as shown on Figure 24. Since delineation within the plume can be reasonably inferred from these data, concentrations at wells MW-549A and MW-550 B are generally decreasing, and the downgradient water quality as discussed above for the MW-546 location indicates that the deep plume is limited in extent, deeper vertical delineation monitoring wells are not necessary at these locations.

4.4.5 Source Area Evaluation

In their June 24, 2008 letter, the NJDEP requested an evaluation of the conditions at well cluster MW-549, to determine what alternatives may exist to reduce ground water contaminant levels in this area. The following table summarizes TRC's evaluation of potential remedial alternatives, considering cost, effectiveness, and practicality to implement.

Remedial Alternative Considered	**Cost**	**Short-Term Effectiveness**	**Implementability**
Chemical Oxidant Injections	High	Low	Low
Enhanced Biological Degradation	Medium-High	Low	Low
Air Sparging	High	Low	Low

Based on the current and historical Site monitoring data, conditions at the MW-549 cluster are improving without the implementation of additional remedial activities. As shown on Table 7, TCE concentrations in well MW-549B have been reduced by 69% between June 2003 and March 2008. Over the same time period there was a 33% reduction in the concentration of TCE in well MW-549A. Additionally, the March 2009 samples showed additional reductions in contaminant concentrations (74% and 41% reduction in MW-549B and MW-549A, respectively). It is clear that source area mitigation and the ground water extraction system have been successful in reducing the size and severity of the plume.

As shown in Figures 19-21 and 24, the TCE concentrations are the highest (concentrations of TCE >500 µg/L) in the area between the Site and well cluster MW-550, located on the eastern edge of the Regency condominium property. This is the plume core most amenable to in situ treatment. The plume center is found in the shallow and intermediate bedrock zones, up to 200 feet below grade. Estimating a plume core approximately 1,000 ft long by 800 ft wide, the area underlain by significant concentrations of TCE is more than 18 acres, much of it offsite.

Improvements over much of the area include the shopping center and a dense apartment complex, limiting drilling locations. The sheer volume of aquifer requiring treatment to make an appreciable difference in the timeframe required to achieve the remedial goals is on the order of millions of cubic yards, even reducing the plume to the zone with the highest concentrations. Even with improved drilling and injection techniques, it is impractical to treat the plume core with the level of effort necessary to accelerate the remedial process.

4.5 Evaluation of Potential for Vapor Intrusion

As requested by the NJDEP in their June 24, 2008 letter, TRC has evaluated the potential for elevated TCE vapor exposure within structures near the Site's ground water contaminant plume. This evaluation includes an evaluation of the known or suspected Site-specific contaminant source, contaminant migration pathways, potential human receptors and the exposure routes by which these receptors may come in contact with contaminants on a site-specific basis, and is presented below.

A groundwater plume comprised primarily of TCE in the local bedrock aquifer and locally within unconsolidated sediments exceeding the NJDEP's GWQS (1 µg/L) extends from the southern end of the Site approximately 7,000 feet. Contaminants derived from this contaminant plume are considered the source area in this evaluation.

Contaminant Migration

Based on ground water monitoring of the active monitoring wells in the Boroughs of Watchung and North Plainfield, contaminant plume migration is influenced by both bedrock structure and local groundwater discharge areas, particularly Crab Brook. The axis of the plume extends to the southwest, approximating regional bedrock strike. Vertical hydraulic gradients are generally downward except for the immediate vicinity of Crab Brook.

Receptor Population

The ground water contaminant plume is located primarily in the Borough of North Plainfield in a mixed residential and commercial area. Along Route 22, land use is predominantly commercial, with residential properties located on side streets. The potential receptors within this area include commercial/industrial workers, visitors and residents.

In competing the NJDEP's Sensitive Population and Resource Checklist (as described below), TRC evaluated the area of the Site's TCE plume for the presence of child care centers; however, no child care centers have been identified within the area of the plume, and as such, child care centers were not further considered as potential receptors for purposes of this evaluation.

In this evaluation, an apartment complex, (Crystal Ridge) located west of the Site, is of primary concern. Due to its location adjacent to the Site's ground water plume source area, the Crystal Ridge development was selected as the focus of further evaluation into the potential for VI. Since these condominiums are the area of primary concern, the receptor population of most concern is the residential receptor (adult and child).

Exposure Routes

The potential exposure route of concern for the residential receptors in the Crystal Ridge development is inhalation of volatilized contaminants as a result of vapor intrusion from the ground water plume emanating from the Site.

Exposure Point Concentration

Based on the ground water monitoring completed to date, the highest ground water concentrations are expected to be found within the core of the contaminant plume, an area measuring approximately 1000 feet wide by 3000 feet long that extends from the Site's source area (vicinity of the MW-549 cluster) to the ground water extraction well RW-1, located on North Avenue. Within this area, ground water wells MW-508B, MW-549B and MW-550C are the shallow zone wells located closest to the Crystal Ridge development. The ground water samples obtained from these wells are closest to Crystal Ridge and believed to be representative of ground water beneath the buildings.

Appendix E contains the summary statistics and screening of the groundwater concentrations, based on ground water samples collected in November 2007. Of the 30 VOCs analyzed for in ground water, only five were detected (chloroform, cis-1,2-dichloroethene, PCE, TCE, and xylenes). The maximum detected ground water concentration from these three samples was screened against NJDEP's (2005) Generic Vapor Intrusion Ground Water Screening Levels. The maximum detected concentrations of PCE and TCE exceeded the NJDEP screening levels, and therefore these compounds and their respective concentrations were used in the Johnson and Ettinger modeling presented below to determine the potential for VI.

Johnson and Ettinger Modeling

A screening level Johnson and Ettinger model (GW-Screen V. 3.1 02/04) was run to model the vapor intrusion into the Crystal Ridge, using the TCE and PCE concentrations presented above.

USEPA's ProUCL (v. 4.00.02) was used to calculate the upper confidence limit (UCL) of the mean for the exposure point concentration (EPC) for the PCE and TCE ground water sample analytical results presented above; however, due to limited number of samples, ProUCL was unable to calculate a useable UCL value, therefore the maximum detected concentration was used as the EPC.

Soil types at and near the Site fall into the silty loam or sandy loam classifications. Since the Site soils have been reworked during construction activities, the model was run using the two different soil types. A total of two scenarios were run depending on the type of soil (silty loam or sandy loam). Both scenarios used the maximum detected concentrations as the EPC.

The assumptions used in the modeling and the results are presented below.

General assumptions:

- Construction –slab-on-grade with garages comprising the first floor.
- Ground water depth – 20'
- Standard J&E defaults for floor area, building ventilation, perimeter crack length, etc.

- Residential scenario – 350 d/yr, for 24 years – adult, 6 years - child, averaging time for cancer risk – 70 years

Scenario 1

- Sandy loam soil type
- Well data from MW's -508B, -549B and -550C (closest to the condominiums)
- Result – adult cancer risk of 1E-03, child cancer risk of 3E-04, non-cancer risk <1
- Infinite source building concentration = 28.4 ug/m3 exceeds NJ Vapor Intrusion Guidance Residential Indoor Air Screening Level of 3 ug/m3.

Scenario 2

- Silty loam soil type
- Well data from MW's -508B, -549B and -550C (closest to the condominiums)
- Result – adult cancer risk of 7E-04, child cancer risk of 2E-04, non-cancer risk <1
- Infinite source building concentration = 20.1 ug/m3 exceeds NJ Vapor Intrusion Guidance Residential Indoor Air Screening Level of 3 ug/m3.

The J&E Model is presented as Appendix E.

As summarized above, based on the variables selected, assumptions made, and the two scenarios run, vapor intrusion of TCE resulted in an estimated potential increased cancer risk of 700 to 1000 times greater than the cancer risk target of 1E-06, depending on soil type. The building concentrations for TCE exceeded the NJDEP Residential Indoor Air Screening Level under both soil conditions. As such, the J&E Modeling run in association with this evaluation into the potential for VI indicates that the potential for VI to occur resulting in unacceptable indoor air quality at the Crystal Ridge Condominiums exists, and that further investigation is warranted.

4.6 Public Notification Activities

Due to the NJDEP's recent amendment to the TRSR (N.J.A.C. 7:26E), individuals or parties responsible for environmental remediations are required to identify neighboring sensitive populations and resources (within a 200-ft radius) and provide public notification to the identified neighbors, government, and regulatory authorities. During this reporting period, TRC initiated research activities necessary to complete NJDEP Sensitive Population and Resource Checklist, as required by NJAC 7:26E-1.4. The completed checklist will identify sensitive populations and resources (residences, potable wells, public and private schools, child care facilities, public parks and playgrounds, surface water bodies, and NJDEP Tier 1 Wellhead Protection Areas) within 200 feet of the Site. When completed, TRC will submit a copy of the Sensitive Population and Resource Checklist and a map (in electronic format) to the NJDEP case manager, NJDEP Office of Community Relations, Municipal Clerks Office, and designated local health official.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the information presented in this report, the following conclusions and recommendations are provided.

- **System Performance, Ground Water Monitoring, and Surface Water Monitoring:** Based upon the information provided in this RAPR, the GWES at the former Lockheed 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 are generally declining. The treatment plant is operating efficiently and no discharge permit limits have been exceeded.

  Documented progress has also been achieved at the source area (well cluster MW-549). Due to the volume of aquifer affected in the source area, the depth of impact, the degree of development in the affected area, and the ongoing success of the current remedial approach, implementation of enhanced treatment techniques for the source area are unnecessary and impractical. .

  A discussion concerning the potential and feasibility of increasing the GWES's ability to capture additional contaminant mass from the upgradient areas will be included in the update to the Site ground water model predictions, to be transmitted under separate cover.

- **Existing Monitoring Well Network:** TRC has evaluated every existing monitoring well based on its historical and recent contaminant levels, and usefulness in evaluating GWES performance. TRC recommends the abandonment of seven existing wells (MW-501A, MW-501B, MW-503A, MW-503B, MW-531A, MW-531B, and P-523B), due to their limited usefulness in evaluating the ground water contaminant plume, GWES performance, and ground water flow direction.

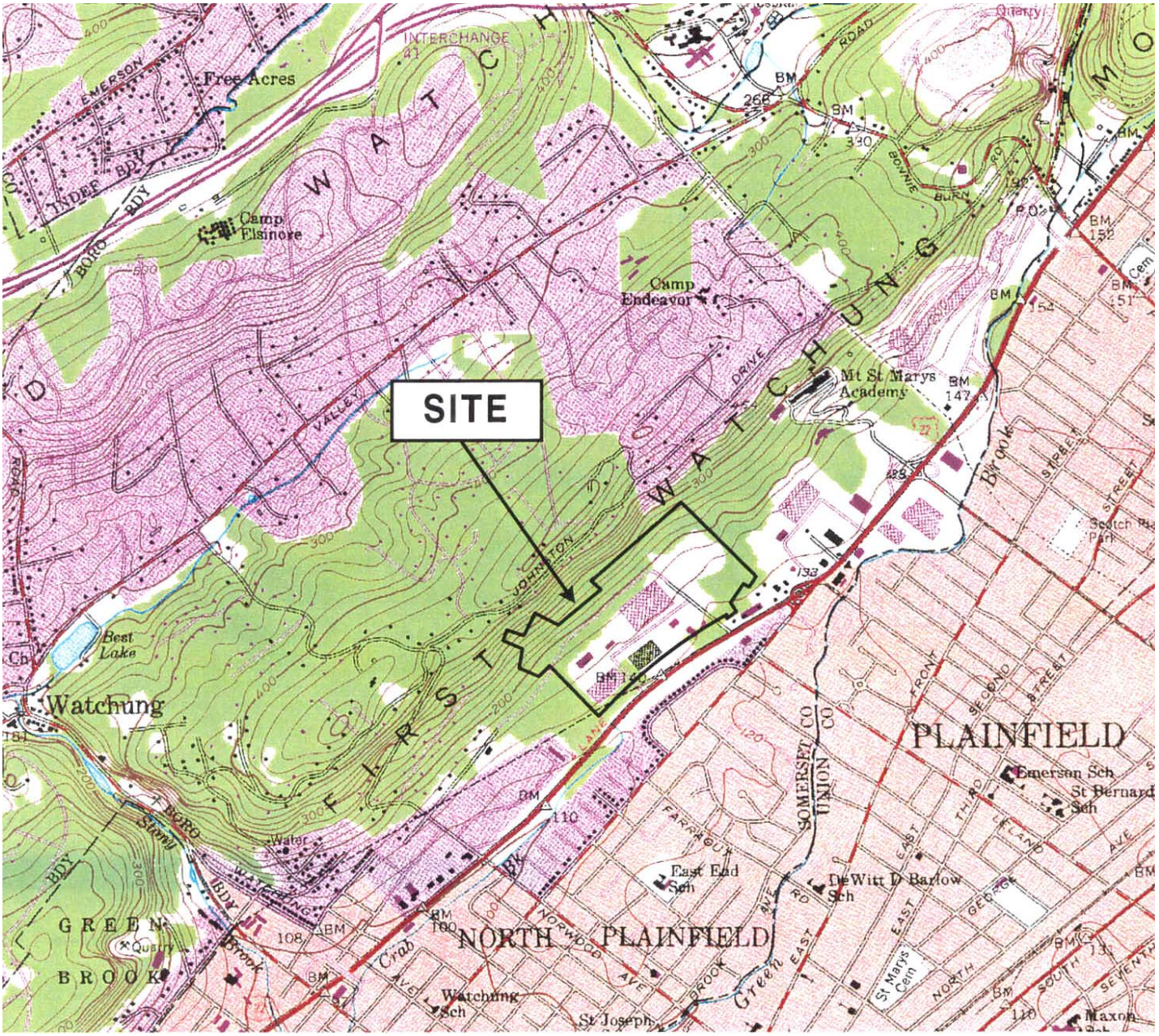
- **Missing Monitoring Wells:** Nine wells that have been reported as missing in previous submittals (MW-509A, MW-509B, MW-510A, MW-510B, MW-542A, MW-542B, MW-542C, and P-523A and P-523C) were not found during the May 2008 surficial geophysical survey, and appear to have been destroyed during historical construction activities. One additional well (MW-549C) was not found during the May 2008 surficial geophysical survey, but may be present below an earth berm at approximately 6 feet below grade. TRC recommends formal abandonment of these wells. To complete formal abandonment of wells MW-509A, MW-509B, MW-510A, MW-510B, MW-542A, MW-542B, MW-542C, and wells P-523A and P-523C, TRC will petition the NJDEP Bureau of Water Allocation for a variance from well abandonment procedures, based on the inaccessibility of each wellhead, as determined by the May 2008 surficial geophysical survey. To address MW-549C, TRC will prepare an access negotiation request with the current property owner to gain access to the vicinity of the assumed MW-549C wellhead area, and (assuming access is granted) will attempt to locate MW-549C by excavation. If the wellhead is found, the well will be abandoned by a licensed well driller. If access is denied, or if the wellhead is not found after excavation, TRC will include well MW-549C in its variance request to the NJDEP Bureau of Water Allocation.

- **NJDEP-Proposed Monitoring Wells:** In their June 24, 2008 letter, the NJDEP recommended the installation of deeper monitoring wells for purposes of providing additional vertical delineation of the TCE plume. TRC has evaluated the NJDEP's recommendations; however, as discussed in Section 4.0 of this document, no additional wells are warranted because historical and downgradient ground water sampling results have established the approximate base of the TCE plume.

- **Potential for Vapor Intrusion:** The J&E Modeling run in association with this evaluation into the potential for VI indicates that the potential for VI to occur at the Crystal Ridge apartments exists, and that further investigation is warranted. Therefore, TRC will prepare a vapor intrusion investigation workplan to investigate the indoor air quality within structures at the Crystal Ridge for NJDEP review and approval.

The next RAPR for the Site is scheduled to be submitted in May 2010, and will cover monitoring and remedial activities through March 2010. An implementation schedule for the proposed activities associated with the RAPR is included as Table 13. Table 14 presents a conceptual schedule for completion of TRC-recommended activities following NJDEP's review and approval of this document.

FIGURES



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

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: 05/27/2009 03:39:32PM

LEGEND

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

0 1000 ft.
APPROXIMATE SCALE

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

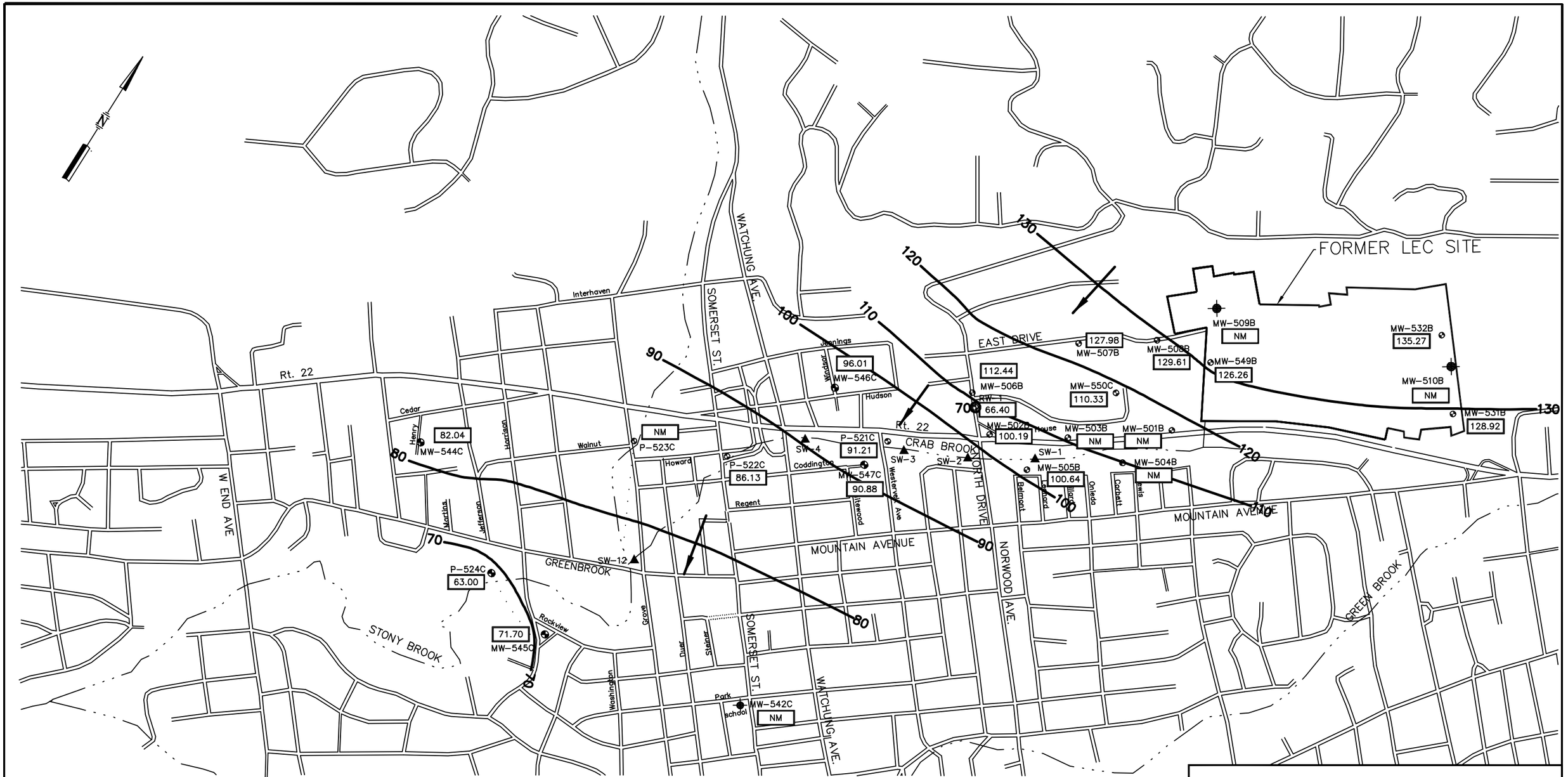
SITE PLAN

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: NOVEMBER 2008	FIGURE : 2

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-31.DWG, DATE: 05/27/2009 03:40:03PM



LEGEND

MW-545C ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

72.34 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

WELL ABANDONED OR DESTROYED

0 1000 ft.

APPROXIMATE SCALE

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

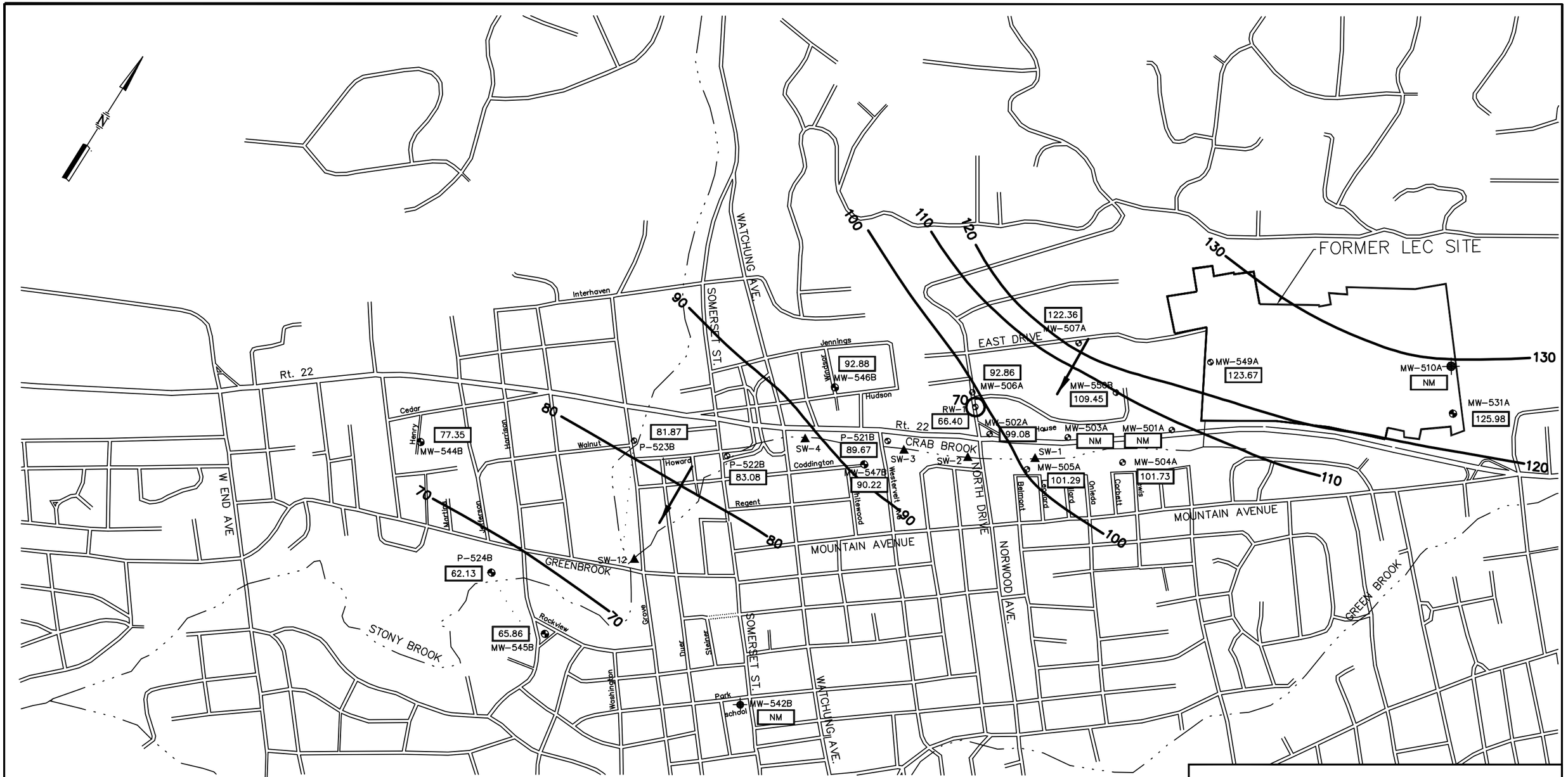
SHALLOW ZONE GROUND WATER CONTOUR MAP
SEPTEMBER 5, 2007

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE: 3

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-19A.DWG, DATE: 05/27/2009 03:44:52PM



LEGEND

MW-545B — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

66.46 — 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

WELL ABANDONED OR DESTROYED

NOTE: GROUND WATER ELEVATION FOR P-521B NOT USED FOR CONTOURING

0 1000 ft.

APPROXIMATE SCALE

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

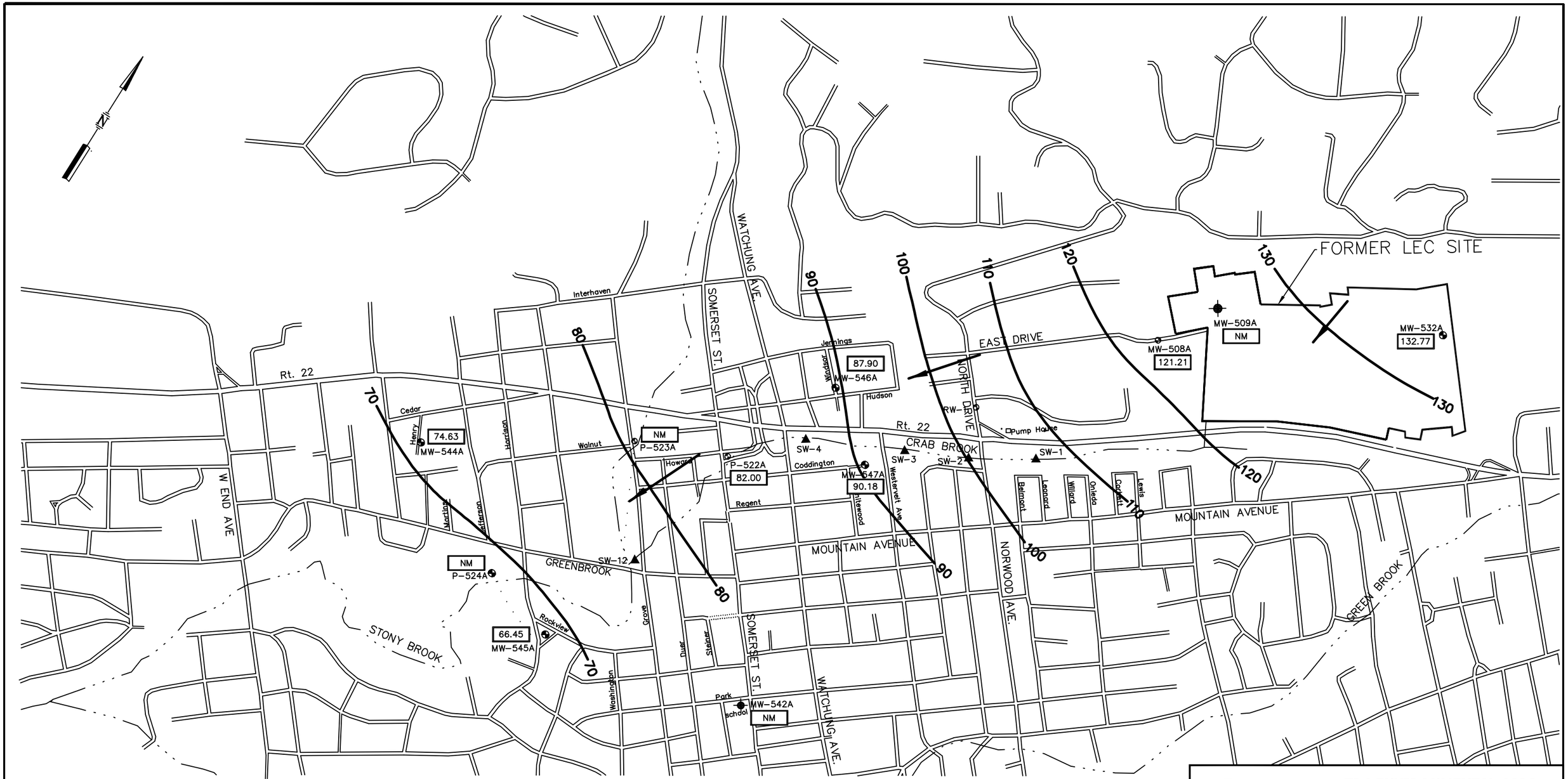
INTERMEDIATE ZONE GROUND WATER CONTOUR MAP
SEPTEMBER 5, 2007

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 4

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-21A.DWG, DATE: 05/27/2009 03:41:46PM



LEGEND

- MW-545A — ACTIVE MONITORING WELL OR PIEZOMETER
- SW-1 — SURFACE WATER MONITORING LOCATION
- 66.97 — 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
- WELL ABANDONED OR DESTROYED

0 1000 ft.
APPROXIMATE SCALE

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

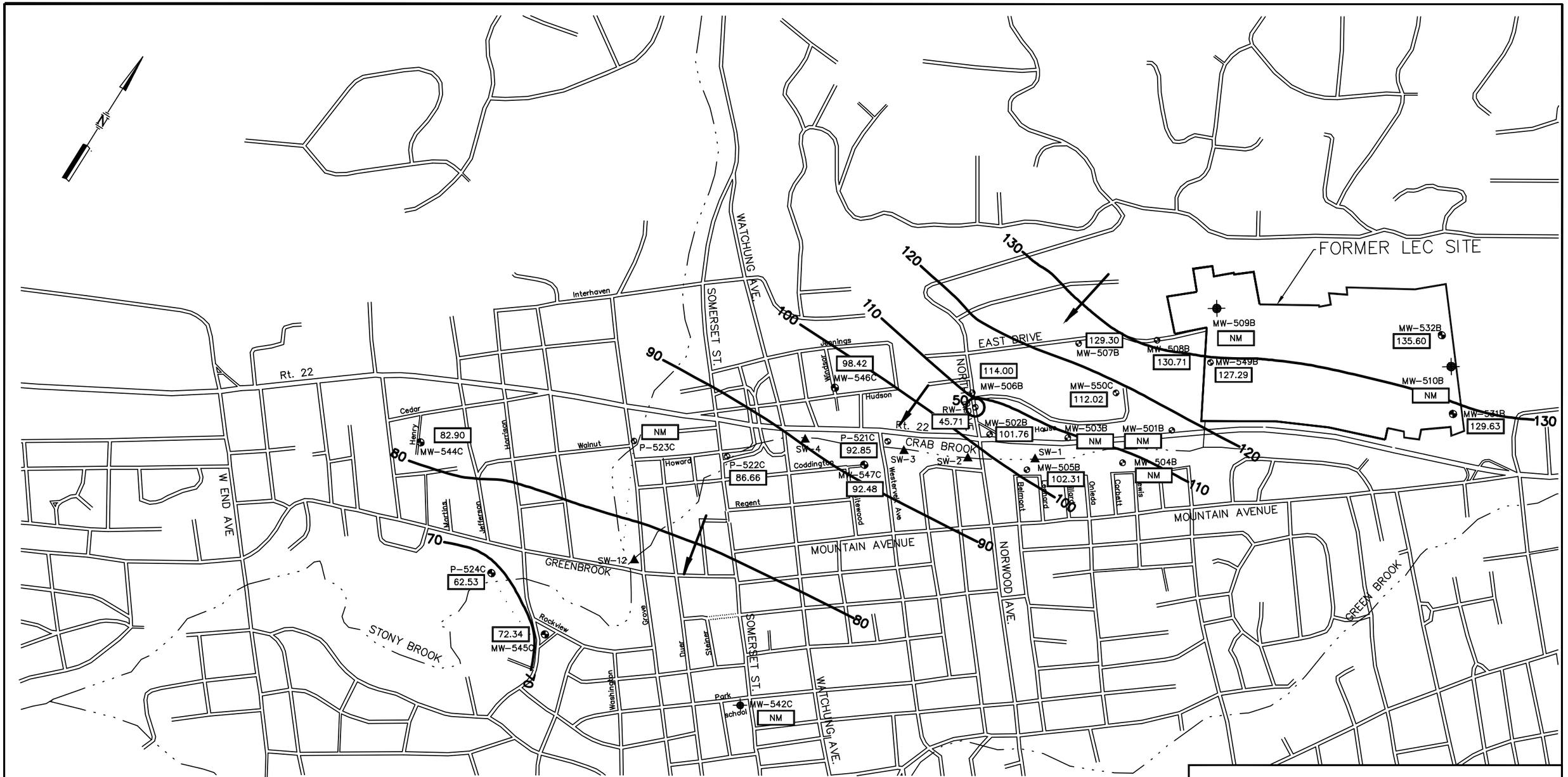
DEEP ZONE GROUND WATER CONTOUR MAP
SEPTEMBER 5, 2007

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 5

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-20A.DWG, DATE: 05/27/2009 03:42:16PM



LEGEND

MW-545C — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

72.34 — 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

WELL ABANDONED OR DESTROYED

0 1000 ft.

APPROXIMATE SCALE

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

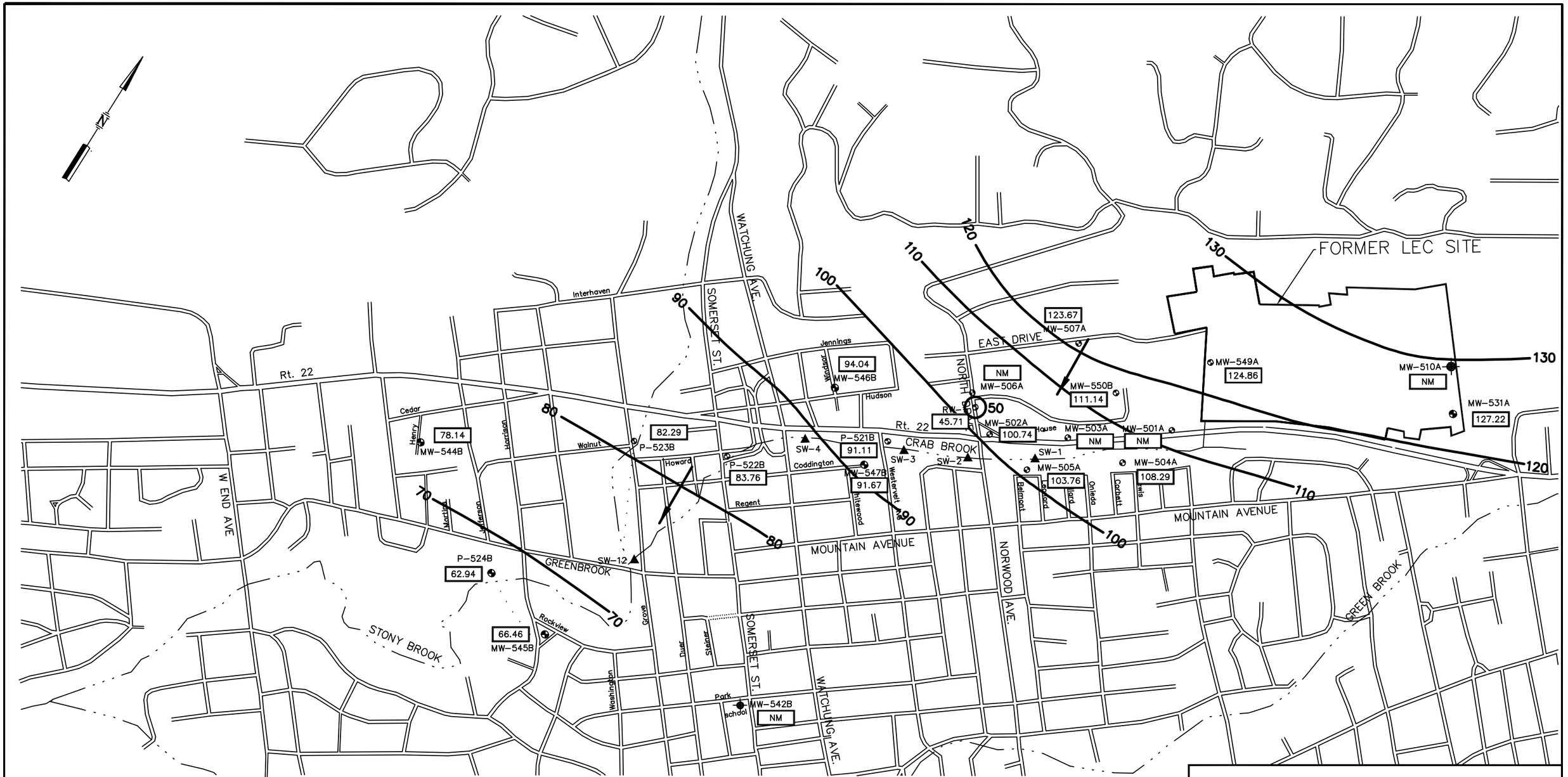
SHALLOW ZONE GROUND WATER CONTOUR MAP
MARCH 18, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 6

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-19.DWG, DATE: 05/27/2009 03:45:03PM



LEGEND

MW-545B — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

66.46 — 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

WELL ABANDONED OR DESTROYED

0 1000 ft.

APPROXIMATE SCALE

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

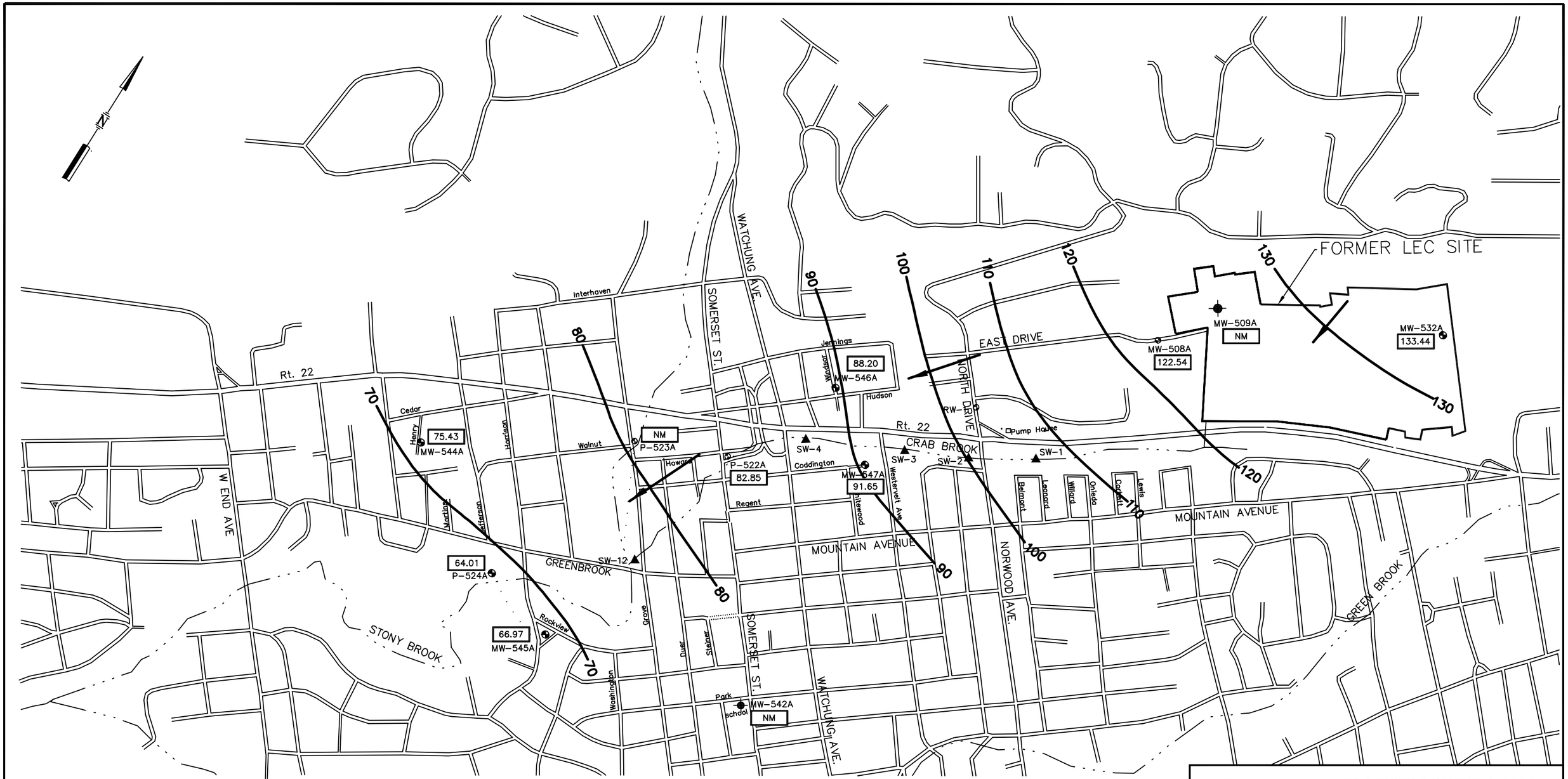
INTERMEDIATE ZONE GROUND WATER CONTOUR MAP
MARCH 18, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 7

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-21.DWG, DATE: 05/27/2009 03:41:57PM



LEGEND

- MW-545A — ACTIVE MONITORING WELL OR PIEZOMETER
- SW-1 — SURFACE WATER MONITORING LOCATION
- 66.97 — 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
- WELL ABANDONED OR DESTROYED

0 1000 ft.
APPROXIMATE SCALE

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

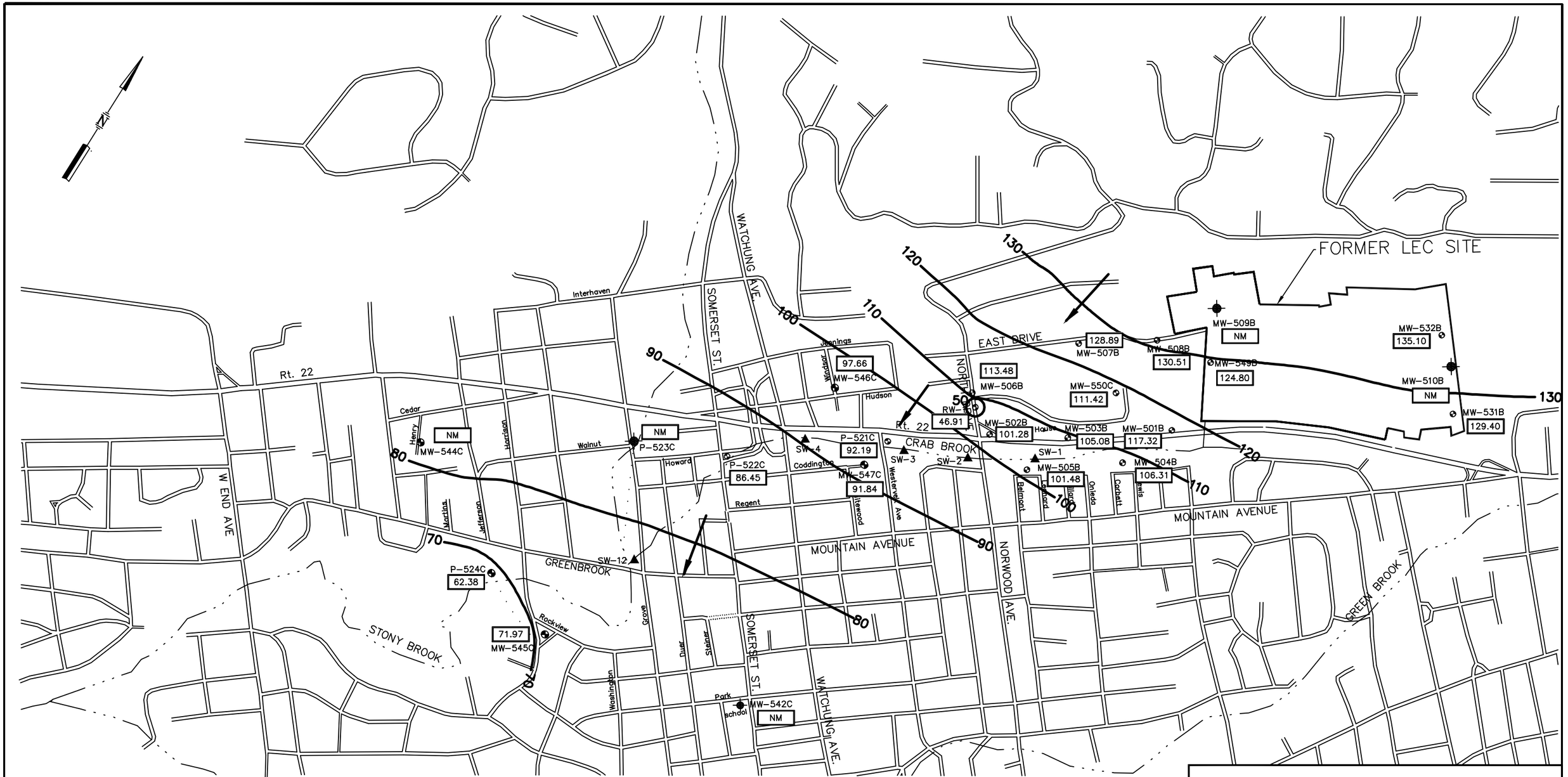
DEEP ZONE GROUND WATER CONTOUR MAP
MARCH 18, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 8

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-20.DWG, DATE: 05/27/2009 03:44:42PM



LEGEND

MW-545C — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

71.97 — 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

WELL ABANDONED OR DESTROYED

0 1000 ft.

APPROXIMATE SCALE

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

SHALLOW ZONE GROUND WATER CONTOUR MAP
JUNE 2, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 9

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-25.DWG, DATE: 05/27/2009 03:41:34PM

LEGEND

MW-545B — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

66.12 — 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

WELL ABANDONED OR DESTROYED

0 1000 ft.

APPROXIMATE SCALE

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

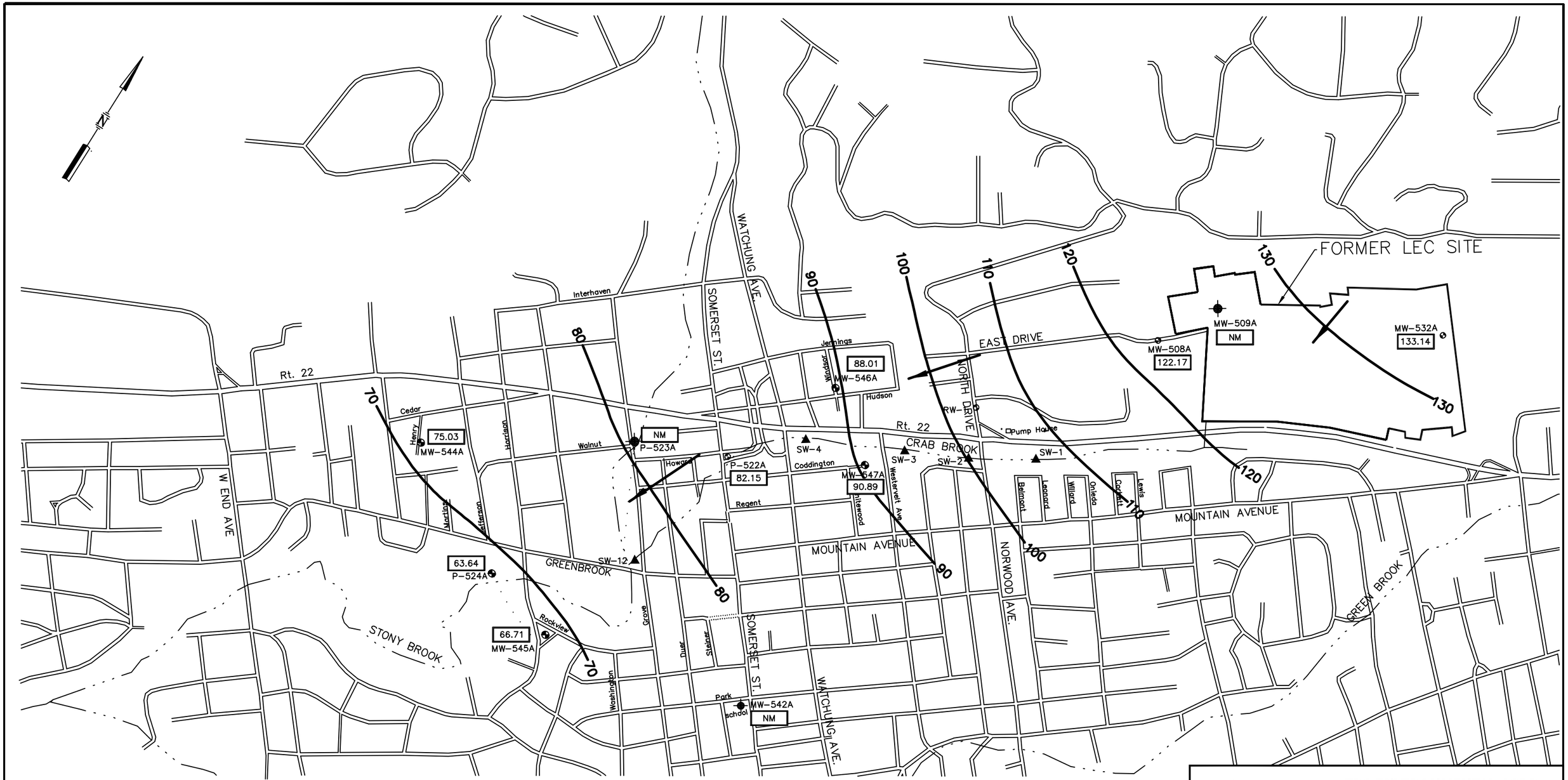
INTERMEDIATE ZONE GROUND WATER CONTOUR MAP
JUNE 2, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 10

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-28.DWG, DATE: 05/27/2009 03:40:56PM



LEGEND

- MW-545A — ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 — SURFACE WATER MONITORING LOCATION
- 66.71 — 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
- WELL ABANDONED OR DESTROYED

0 1000 ft.
APPROXIMATE SCALE

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

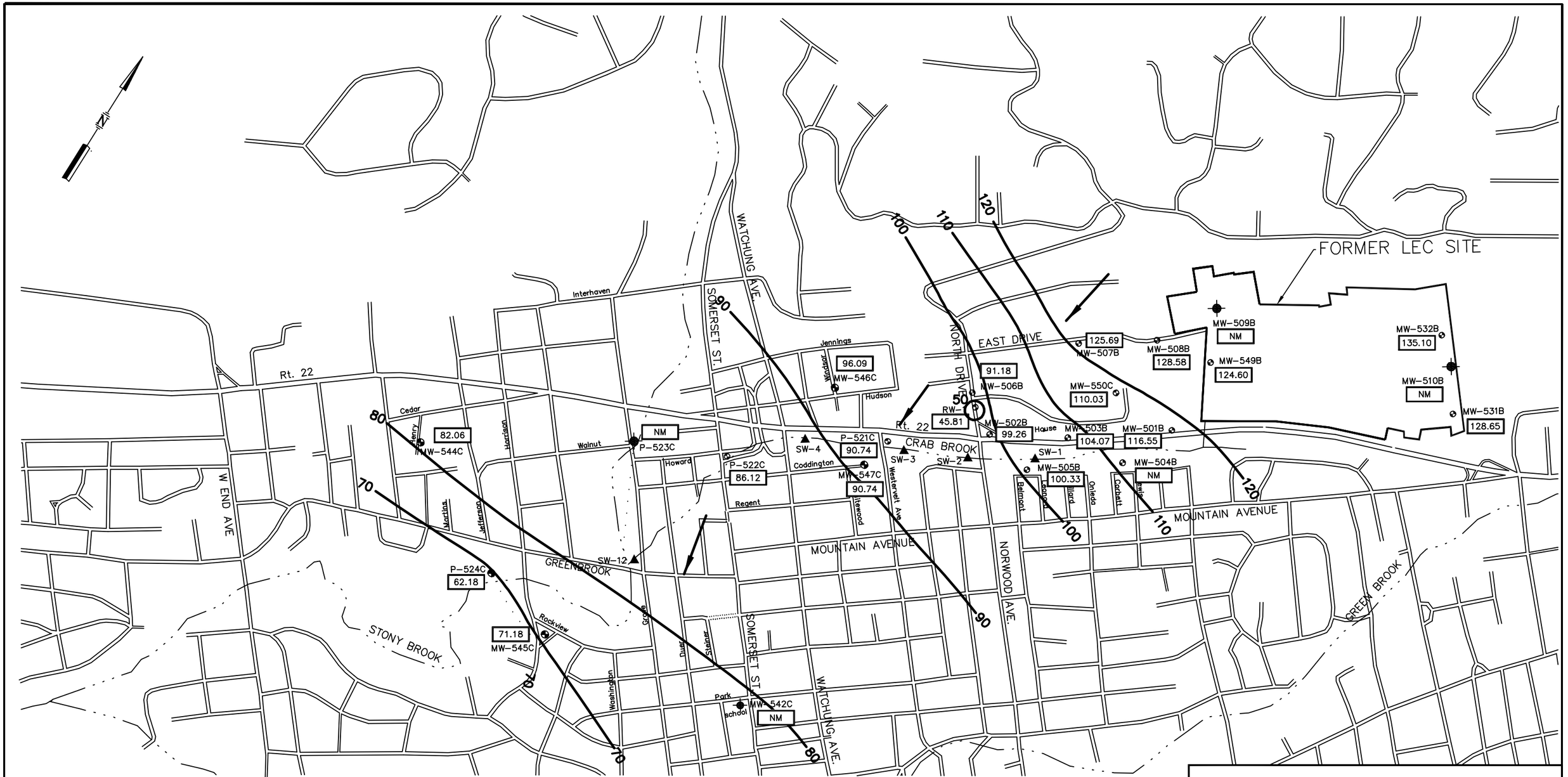
DEEP ZONE GROUND WATER CONTOUR MAP
JUNE 2, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 11

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-29.DWG, DATE: 05/27/2009 03:40:43PM



LEGEND

MW-545C — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

71.18 — 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

WELL ABANDONED OR DESTROYED

0 1000 ft.

APPROXIMATE SCALE

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

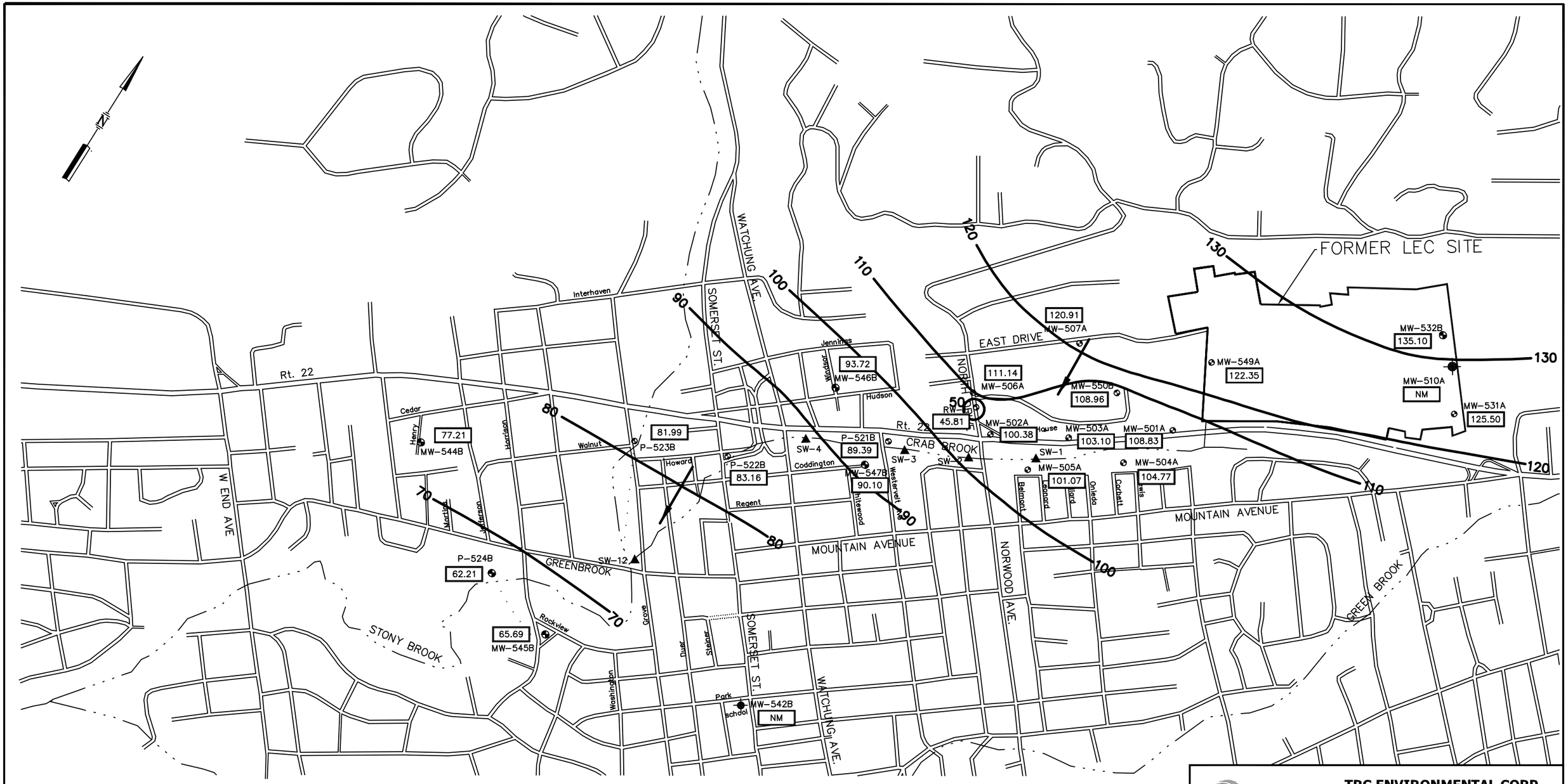
SHALLOW ZONE GROUND WATER CONTOUR MAP
NOVEMBER 6, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE: 12

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-26.DWG, DATE: 05/27/2009 03:41:21PM



LEGEND

MW-545B — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

65.69 — 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

WELL ABANDONED OR DESTROYED

NOTE: GROUND WATER ELEVATION AT P-521 WAS NOT USED FOR GENERATION OF CONTOURS.

0 1000 ft.
APPROXIMATE SCALE

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

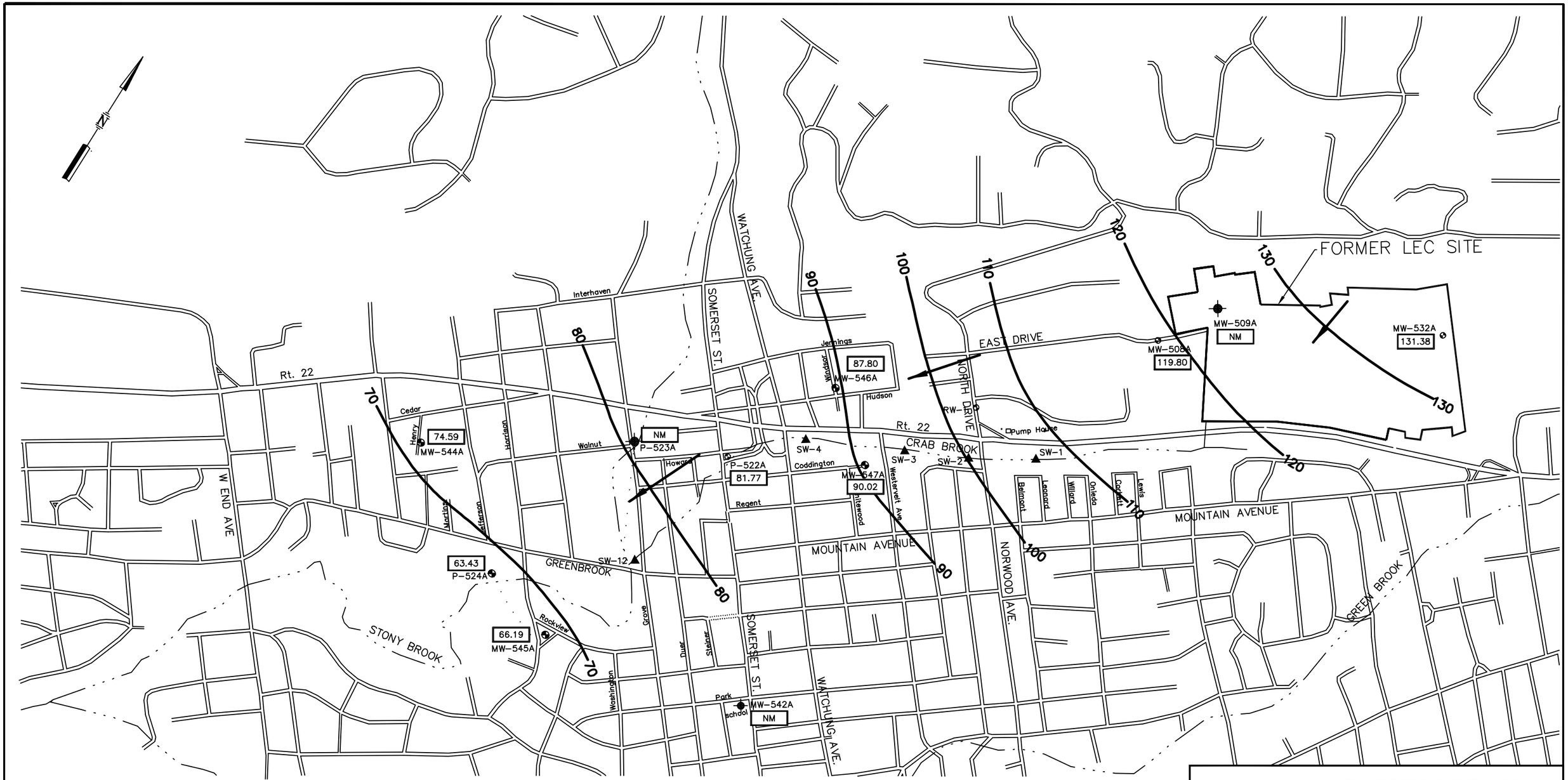
INTERMEDIATE ZONE GROUND WATER CONTOUR MAP
NOVEMBER 6, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 13

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-27.DWG, DATE: 05/27/2009 03:41:10PM



LEGEND

- MW-545A — ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 — SURFACE WATER MONITORING LOCATION
- 66.19 — 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
- WELL ABANDONED OR DESTROYED

0 1000 ft.
APPROXIMATE SCALE

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

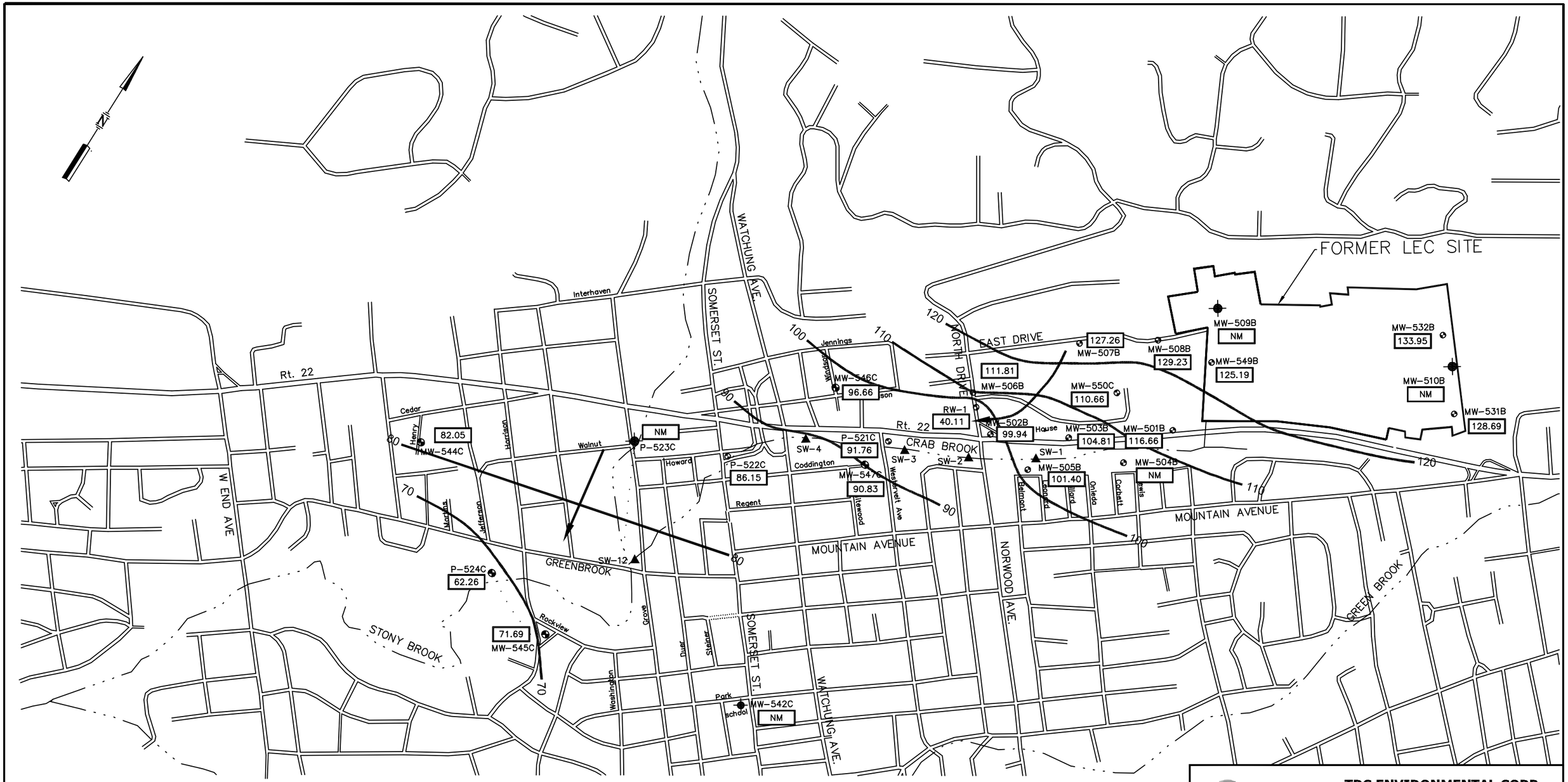
DEEP ZONE GROUND WATER CONTOUR MAP
NOVEMBER 6, 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

PP/ODL	DATE: APRIL 2009	FIGURE : 14

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-30.DWG, DATE: 05/27/2009 03:40:20PM



LEGEND

MW-545C — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

71.69 — GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT MSL)

NM = NOT MEASURED

120 — GROUND WATER CONTOUR IN FT MSL

GROUND WATER FLOW DIRECTION

WELL ABANDONED OR DESTROYED

0 1000 ft.
APPROXIMATE SCALE

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

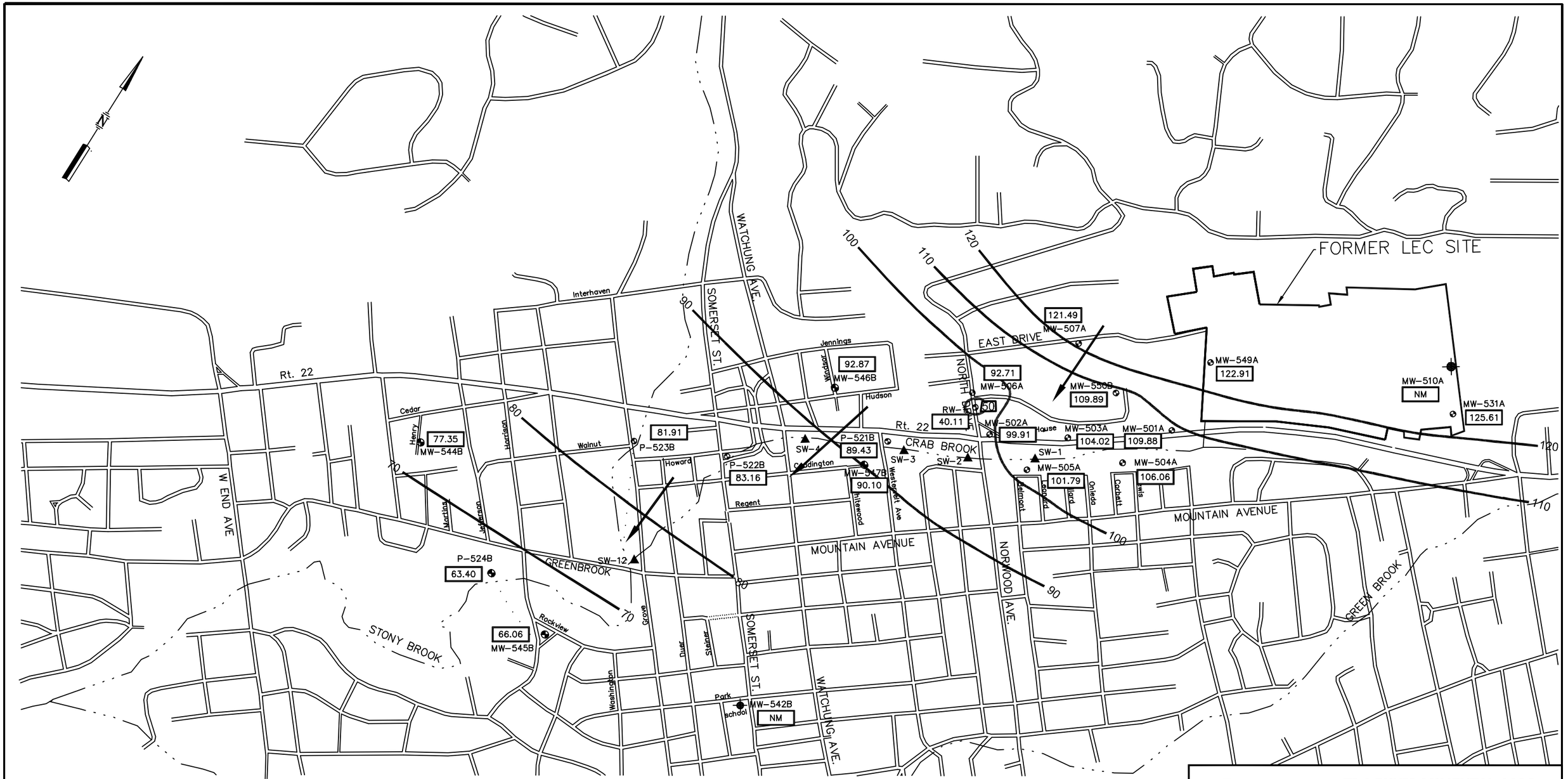
SHALLOW ZONE GROUND WATER CONTOUR MAP
MARCH 10, 2009

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

JO/ODL	DATE:APRIL 2009	FIGURE : 15

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-GWE CONTOUR SHALLOW 031009.DWG, DATE: 05/27/2009 03:38:51PM



LEGEND

MW-545B — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION

65.69 — 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

WELL ABANDONED OR DESTROYED

NOTE: GROUND WATER ELEVATION AT P-521 WAS NOT USED FOR GENERATION OF CONTOURS.

0 1000 ft.
APPROXIMATE SCALE

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

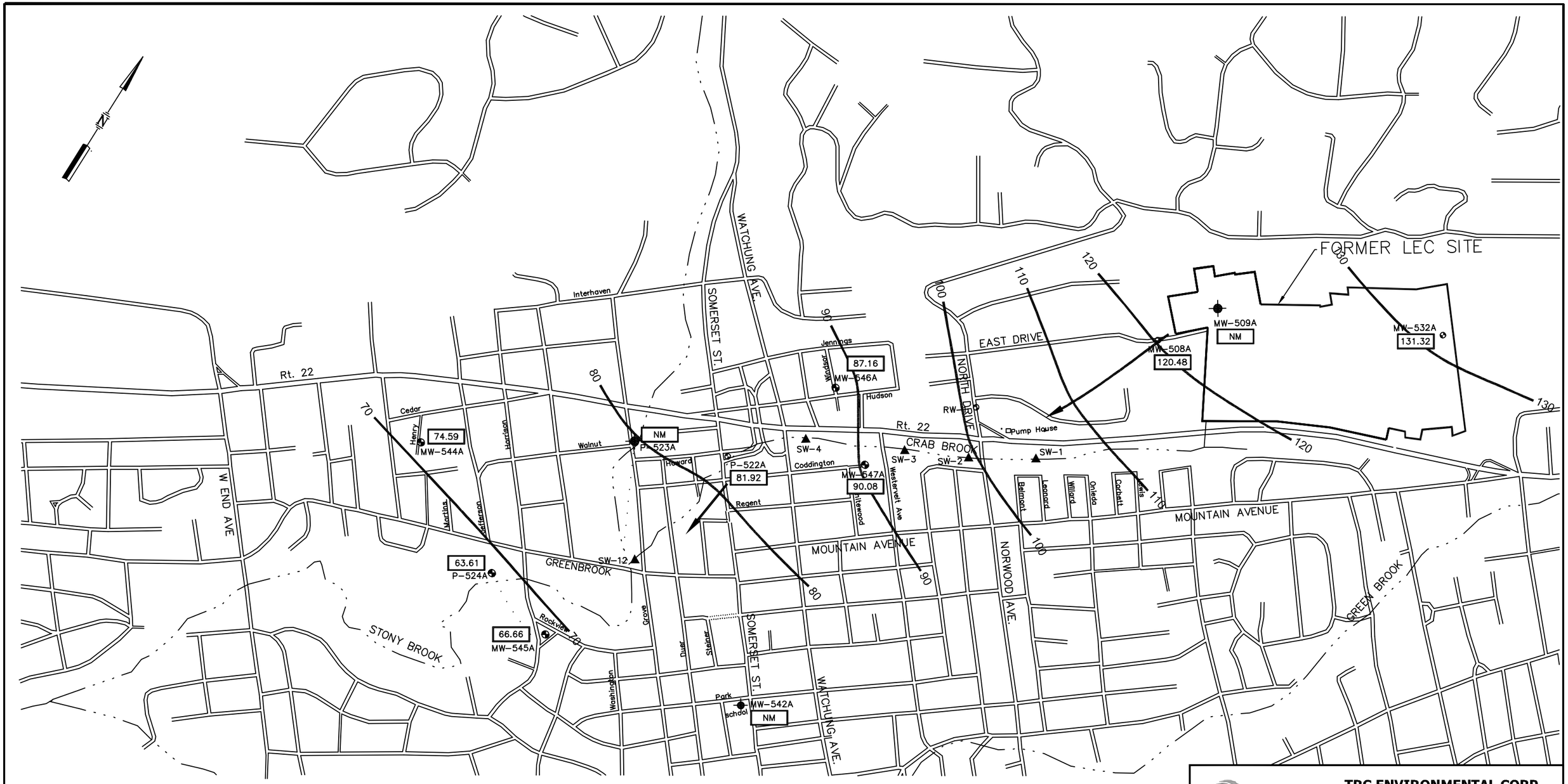
INTERMEDIATE ZONE GROUND WATER CONTOUR MAP
MARCH 10, 2009

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

JO/ODL	DATE: APRIL 2009	FIGURE: 16

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-GWE CONTOURS INTERMEDIATE 031009.DWG, DATE: 05/27/2009 03:38:27PM



LEGEND

- MW-545A — ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION
- 66.66 — 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
- WELL ABANDONED OR DESTROYED

0 1000 ft.
APPROXIMATE SCALE

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

DEEP ZONE GROUND WATER CONTOUR MAP
MARCH 10, 2009

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

JO/ODL	DATE: APRIL 2009	FIGURE: 17

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-GWE CONTOURS DEEP 031009.DWG, DATE: 05/27/2009 03:38:39PM

MW-506A

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	3/17/2006	9/20/2006	3/8/2007	9/6/2007	6/2/2008	11/6/2008	3/11/2009
TCE	960	830	940	710	1300	710	650	730	620	700	860	420	380	139	1.8	2.5
PCE	3.1 U	3.1 U	3.1 U	1.6 U	3.6 U	2.0	1.8 U	2.2 U	4.5U	2.2U	2.6	2.1U	1.5	1.8	1.6	1.4
TTVOC	971	836	940	717	1331	722	657	738	626	705	869	424	387	145	5.4	4.4
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-506B

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
TCE	14	15	16	13	13	16	17	14	36	12.7	13	8.0	7.8	7.6	3.3	2.3
TTVOC	14	15	16	13	13	16	17	14	36	12.7	13	8.0	7.8	7.6	3.3	2.3
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-502A

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
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	0.63	0.50J
TTVOC	2.1	1.4	1.5	1.0	1.0	1.6	1.8	0.8	0.6	1.3	1.6	1.1	1.4	1.51	1.6	1.3
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-502B

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
TCE	1100	670	730	390	350	290	330	340	280	300	320	23	1.6	25.9	4.9	11.1
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
TTVOC	1114	688	771	412	368	308	375	381	296	332	348	40.4	10.4	54.6	12.3	22.2
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-546A

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	9/6/2007	3/19/2008	11/6/2008	3/11/2009
TCE	91	88	90	82	110	110	110	120	130	150	120	110	129	116	106	74.6
TTVOC	94	91	93	85	114	115	114	124	134	155	124	114	129	121	105	78.8
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1

P-522A

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
TCE	3.8	3.0	3.6	3.3	3	3	NS	2.2	3.1	2.4	3.0	2.2
TTVOC	7.9	5.4	6.4	6.1	5.3	5.7	NS	4.5	6	4.8	7.2	4.7
TNTVOC	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND

P-522B

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
TCE	220	220	200	190	210	210	190	34	12	9.0	6.0	5.3
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
TTVOC	263	259	243	239	260.3	260.8	241	72	45.7	41.2	31.4	32.1
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

P-522C

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
1,2-DCA	0.3 U	0.3 U	0.4 U	2.9	0.3U	0.3U	0.3U	0.3U	0.3U	0.5U	0.31U	0.31U
TCE	18	0.2 U	0.4 U	25	0.4U	0.4U	0.5	0.4U	0.4U	0.2U	0.065U	0.45U
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
TTVOC	24	ND	0.4	79	ND	ND	0.5	ND	ND	ND	ND	ND
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-507A

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
TCE	860	740	690	450	1100	610	540	570	600	600	0.4U	300	470	174	417	47.9
TTVOC	860	748	698	460	1109	617	546	578	605.5	606.8	ND	306	477	185	423	49.7
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-507B

DATE	3/25/2004	3/4/2005	3/7/2006	3/8/2007	3/19/2008	3/11/2009
TCE	16	20	19	7.9	14.7	1.9
TTVOC	16	21	19.6	8.2	15.3	2.7
TNTVOC	ND	ND	ND	ND	ND	ND

MW-508A

DATE	3/25/2004	3/4/2005	3/7/2006	3/8/2007	3/19/2008	3/11/2009
TCE	39	1.2	0.5	2.3	9.3	4.5
TTVOC	37	22	20.5	14.3	26.5	14.5
TNTVOC	ND	ND	ND	ND	19	ND

MW-508B

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
TCE	69	40	41	32	30	31	28	40	40	31	34	27	28	21.6	27.7	15.7
TTVOC	70	41	41	33	31	32	27	41	40.9	31.9	35.2	28.2	29.8	22.7	29.8	19
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-549A

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
TCE	1100	900	1000	880	820	850	820	98	1100	990	940	870	850	801	837	714
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	0.62
TTVOC	1100	900	1000	883	824	850	825	98	1106	990	940	882	854	806	841	717
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-549B

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
TCE	2300	1800	1200	1400	1500	1200	1200	650	1300	1400	1100	710	1000	867	767	724
PCE	7.8 U	8.5	13	6.7	9.0 U	8.1	7.2 U	3.9	6.6	4.5U	4.7	4.2U	4.8	4.5	5.7	2.6
TTVOC	2319	1825	1213	1416	1510	1219	1215	659	1319	1409	1114	710	1013	882	781	732
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-532A

DATE	3/25/2004	3/3/2005	3/7/2006	3/8/2007	3/19/2008	3/10/2009
TCE	33	37	40	29	33	31.3
PCE	0.5	1.0	1.1	1.2	0.96	1.2
TTVOC	34	38	41.1	30.2	34.0	32.5
TNTVOC	ND	ND	ND	ND	ND	ND

MW-544A

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
TTVOC	0.8	ND	ND	ND	ND	ND	0.4	0.4U	ND	0.35	ND	ND
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-544B

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
TTVOC	0.6	0.8	0.6	ND	0.6	0.7	0.8	0.7	0.70	0.79	0.87	0.70
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-544C

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
TCE	1.3	1.8	1.3	1.8	1.2	1.5	1.1	0.7	1.6	0.2U	1.1	2.1
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
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
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-545A

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
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
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
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-545B

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
TTVOC	0.5	ND	ND	ND	ND	ND	ND	0.3	0.46	0.38	ND	0.32
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-545C

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
TTVOC	1.3	1.8	0.5	ND	ND	1.1	ND	0.6	0.69	0.88	ND	1.9
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-505A

DATE	3/25/2004	3/3/2005	3/7/2006	3/22/2007	3/19/2008	3/10/2009
TTVOC	0.5	ND	0.5	0.5	0.8	0.69
TNTVOC	ND	ND	ND	ND	ND	ND

MW-505B

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

MW-550B

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
TCE	800	780	750	650	1400	720	620	760	740	730	860	600	650	646	560	494
PCE	3.1 U	4.5	3.1 U	3.1	6.1	4.9	3.6 U	5.0	2.5	4.5U	5.5	3.5	4.0	4.3	3.7J	4.5
TTVOC	800	793	750	660	1417	733	630	774	748	730	872	608	660	656	569	503
TNTVOC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-550C

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
TCE	140	150	170	140	140	130	120	140	160	140	110	100	110	123	58.9	9.3
TTVOC	142	152	173	142	142	133	122	142	161.8	141.4	111	101	111.5	124.0	60.2	9.7
TNTVOC	ND	ND	ND	ND	ND	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
- WELL DESTROYED

0 500 FT.
APPROXIMATE SCALE

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

GROUND WATER SMPLING RESULTS
SEPTEMBER 2003 - MARCH 2009

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

SMC/ODL	DATE: APRIL 2009	FIGURE: 18

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-GROUND WATER SAMPLING RESULTS-SEP2003-MAR2009.DWG, DATE: 05/27/2009 03:39:08PM

LEGEND

MW-545C — ACTIVE MONITORING WELL OR PIEZOMETER

▲ SW-1 SURFACE WATER MONITORING LOCATION
TCE = TRICHLOROETHENE

0.32J — TCE ISOCONCENTRATION IN MILLIGRAMS PER LITER (ug/L)

ND = NOT DETECTED, J = ESTIMATED CONCENTRATION

— — — TCE ISOCONCENTRATION CONTOUR IN ug/L

✦ WELL ABANDONED OR DESTROYED

★ LOCATION OF NEAREST LICENSED CHILD CARE CENTER (BASED ON NJ DEPT. OF CHILDREN & FAMILIES LIST OF LICENSED CHILD CARE CENTERS, MAY 2009)

0 1000 ft.
APPROXIMATE SCALE

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

TCE ISOCONCENTRATION MAP
SHALLOW ZONE GROUND WATER
MARCH AND JUNE 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

SMC/ODL	DATE: APRIL 2009 2009	FIGURE: 19

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-TCE ISO MAP SHALLOW 03062008.DWG, DATE: 05/27/2009 03:30:50PM

LEGEND

- MW-524B — ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 — SURFACE WATER MONITORING LOCATION
  TCE = TRICHLOROETHENE
- 2.3 — TCE ISOCONCENTRATION IN MILLIGRAMS PER LITER (ug/L)
  ND = NOT DETECTED, J = ESTIMATED CONCENTRATION
- TCE ISOCONCENTRATION CONTOUR IN ug/L
- WELL ABANDONED OR DESTROYED
- ★ LOCATION OF NEAREST LICENSED CHILD CARE CENTER (BASED ON NJ DEPT. OF CHILDREN & FAMILIES LIST OF LICENSED CHILD CARE CENTERS, MAY 2009)

0 1000 ft.
APPROXIMATE SCALE

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

TCE ISOCONCENTRATION MAP
INTERMEDIATE ZONE GROUND WATER
MARCH AND JUNE 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

SMC/ODL	DATE: APRIL 2009	FIGURE: 20

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\TCE ISO MAP INTERMEDIATE 03062008.DWG, DATE: 05/27/2009 03:45:16PM

LEGEND

- MW-545A — ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SW-1 SURFACE WATER MONITORING LOCATION
  TCE = TRICHLOROETHENE
- 0.32J — TCE ISOCONCENTRATION IN MILLIGRAMS PER LITER (ug/L)
  NA = NOT AVAILABLE, ND = NOT DETECTED, J = ESTIMATED CONCENTRATION
- TCE ISOCONCENTRATION CONTOUR IN ug/L
- WELL ABANDONED OR DESTROYED
- ★ LOCATION OF NEAREST LICENSED CHILD CARE CENTER (BASED ON NJ DEPT. OF CHILDREN & FAMILIES LIST OF LICENSED CHILD CARE CENTERS, MAY 2009)

0 1000 ft.
APPROXIMATE SCALE

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

TCE ISOCONCENTRATION MAP
DEEP ZONE GROUND WATER
MARCH AND JUNE 2008

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

SMC/ODL	DATE: APRIL 2009	FIGURE: 21

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-TCE ISO MAP DEEP 03062008.DWG, DATE: 05/27/2009 03:33:46PM

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	3/6/2006	9/19/2006	3/6/2007	9/5/2007	3/18/2008	11/6/2008	3/10/2009
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	ND	ND	ND	0.28	ND	0.49 J
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	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	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	0.28	0.21	0.49
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	ND	ND	ND	ND	ND	ND

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	3/6/2006	9/19/2006	3/6/2007	9/5/2007	3/18/2008	11/6/2008	3/10/2009
TCE	2.6	1.2	ND	ND	ND	ND	1.1	0.8	ND	0.8	1.2	ND	ND	ND	ND	0.7	ND	ND	ND	ND	0.4	1.6	ND	ND	ND	ND	ND	ND	ND	0.6	ND	ND	0.4	0.51	0.59 J	0.73 J
PCE	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	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	0.7	ND	1.1	ND	0.8	1.6	ND	ND	1.7	ND	ND	ND	ND	ND	0.6	0.7	ND	1.0	0.51	0.93	0.73
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	ND	ND	ND	ND	ND	ND

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	3/6/2006	9/19/2006	3/6/2007	9/5/2007	3/18/2008	11/6/2008	3/10/2009
DCP	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	NS	NS	NS	NS	NS	NS
TCE	1.7	2.2	3.0	3.4	3.2	1.1	2.1	1.4	ND	2.3	2.4	1.3	2.5	2.4	2.1	2.2	2.4	1.1	1.0	2.3	1.0	1.2	ND	2.9	3.3	3	3.6	ND	ND	NS	NS	NS	NS	NS	NS	NS
PCE	ND	ND	0.6	0.7	0.6	ND	ND	ND	ND	0.5	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS
TTVOC	2.5	2.2	4.5	5.3	4.8	1.1	2.7	1.8	ND	3.5	3.5	1.7	3.3	3.1	2.8	2.8	3.1	1.5	1	2.9	1	1.2	3.2	3.8	4.4	3.8	4.6	ND	ND	NS	NS	NS	NS	NS	NS	NS
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	NS	NS	NS	NS	NS	NS	NS

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	3/6/2006	9/19/2006	3/6/2007	9/5/2007	3/18/2008	11/6/2008	3/10/2009
DCP	ND	ND	ND	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	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	1.2	0.6	ND	1.1	0.77	1.0	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	2.8	9	1.2	2.6	1.5	1.7	1.4	0.5	ND	ND	ND	ND	1.2	2	ND	2.8	0.77	2.8	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	ND	ND	ND	ND	ND	ND

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	3/6/2006	9/19/2006	3/6/2007	9/5/2007	3/18/2008	11/6/2008	3/10/2009
TCE	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	ND	ND	ND	NS	NS	ND	ND	ND	ND	0.42 J	ND	1.5
TTVOC	0.7	ND	ND	ND	ND	ND	ND	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	ND	0.42	ND	1.8
TNTVOC	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	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND

FORMER LEC SITE

EAST DRIVE

NORTH DRIVE

NORWOOD AVE.

MOUNTAIN AVENUE

CRAB BROOK

GREEN BROOK

STONY BROOK

GREENBROOK

Rt. 22

W END AVE

CHURCH ST.

CHUNG AVE.

FOREST ST.

SOMERSET ST.

Jennings

Hudson

Cedar

Henry

Harrison

Walnut

Howard

Regent

Coddington

Martins

Jefferson

Whitewood

Westervelt Ave

Balmont

Leonard

Wyford

Oneida

Corbett

Lewis

Stainer

Duer

Lockview

MW-546A,B,C

MW-544A,B,C

MW-547A,B,C

MW-545A,B,C

MW-542A,B,C

MW-507A,B

MW-508A,B

MW-549A,B

MW-532A,B

MW-531A,B

MW-506A,B

MW-550B,C

MW-502A,B

Pump House

MW-503A,B

MW-501A,B

MW-504A,B

MW-505A,B

P-523A,B,C

P-521B,C

P-522A,B,C

P-524A,B,C

SW-1

SW-2

SW-3

SW-4

SW-12

RW-1

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
- WELL DESTROYED

0 500 FT.

APPROXIMATE SCALE

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

SURFACE WATER SMPLING RESULTS
JULY 2003 - MARCH 2009

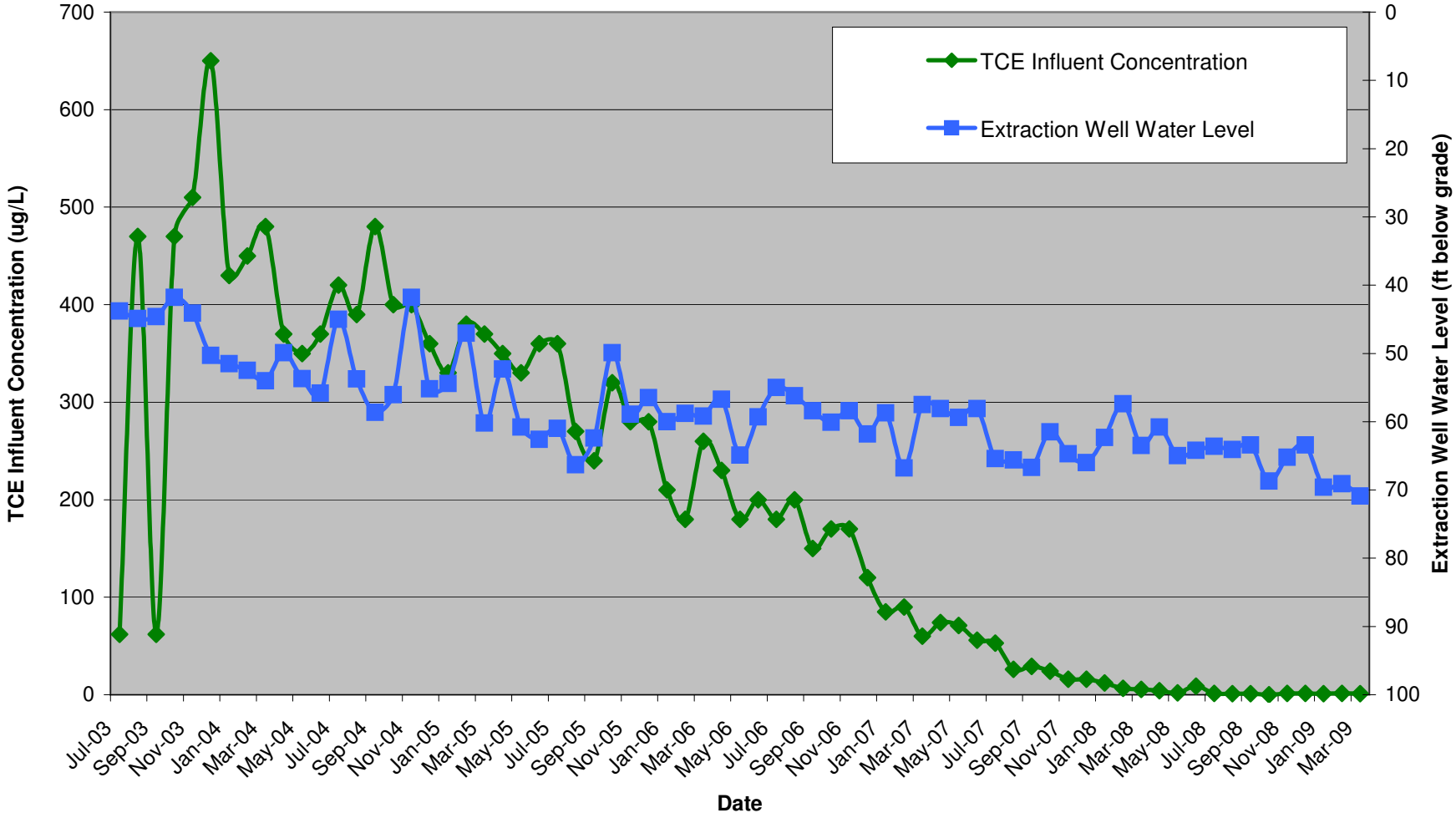
FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

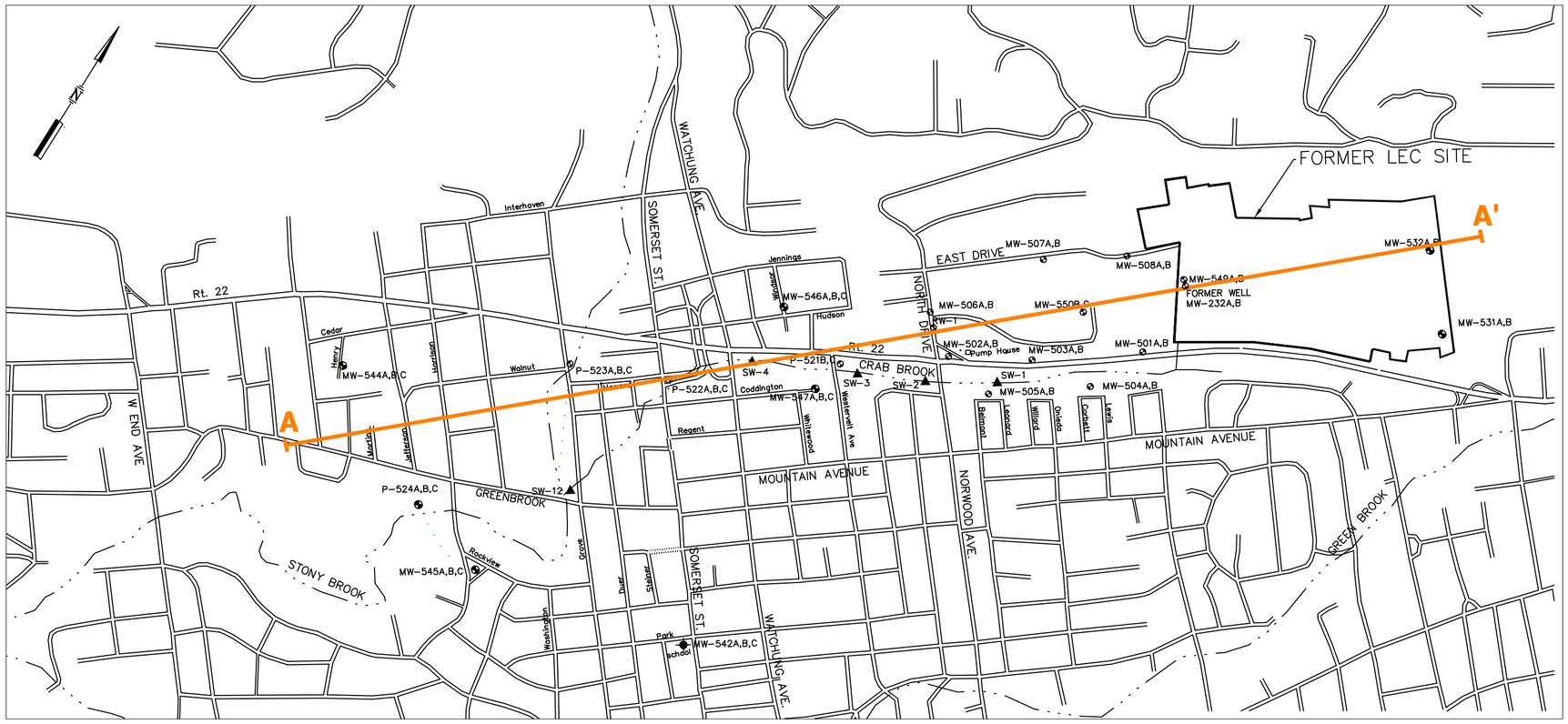
JOB NO. 2542-116473

SMC/ODL	DATE: APRIL 2009	FIGURE: 22

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-SURFACE WATER SAMPLING RESULTS-JUL2003-MAR2009.DWG, DATE: 05/27/2009 03:37:58PM

Figure 23
Ground Water Extraction System Performace Summary
Former Lockheed Electronics Company Site - Watchung, New Jersey

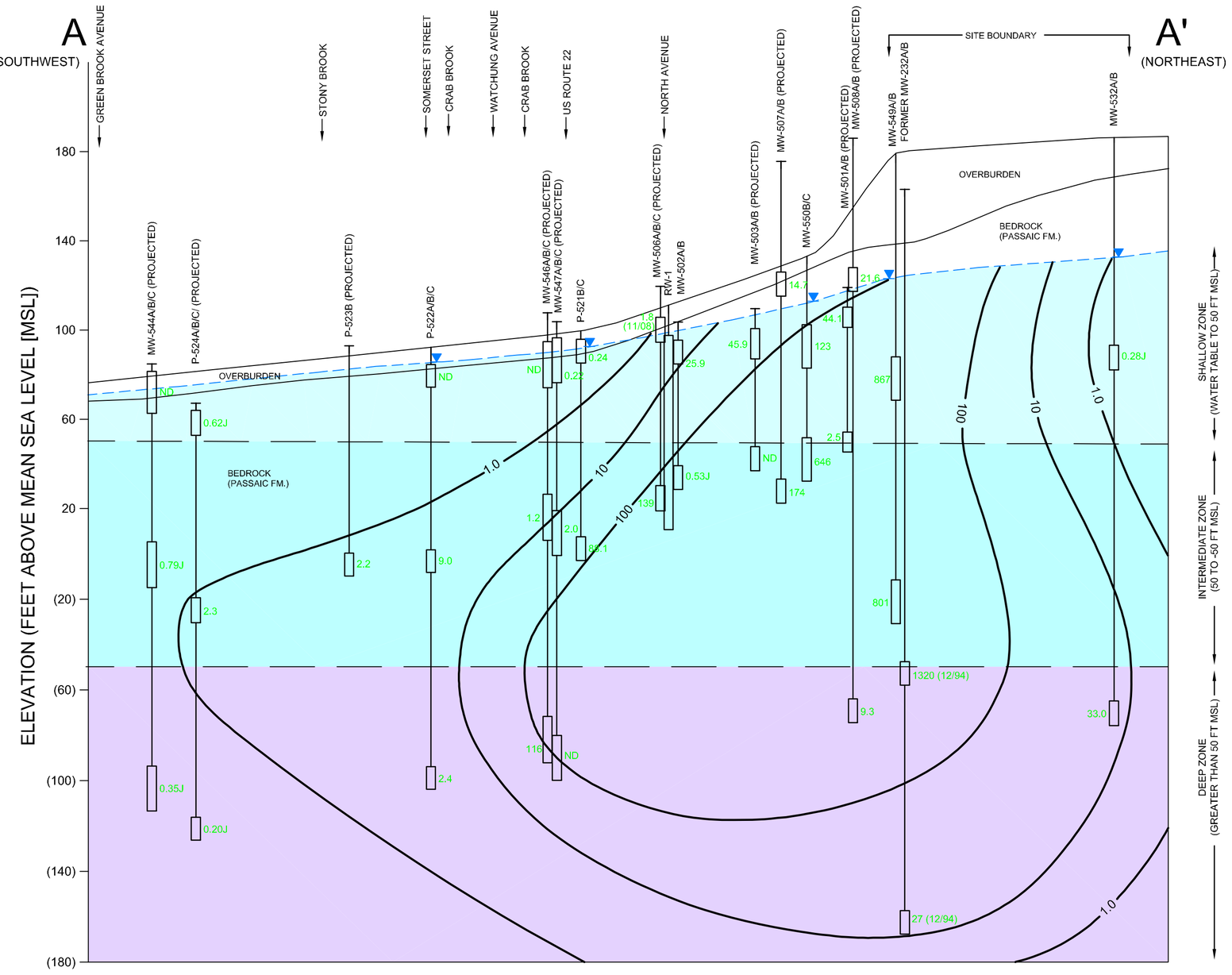




LEGEND

- ACTIVE MONITORING WELL OR PIEZOMETER
- SW-1 SURFACE WATER MONITORING LOCATION
- WELL ABANDONED OR DESTROYED
- A A' LINE OF CROSS SECTION

0 1000 ft.
APPROXIMATE SCALE



LEGEND

- WELL
- WELL GROUND SURFACE (WHERE APPLICABLE)
- RISER
- APPROXIMATE GROUND WATER SURFACE
- SCREEN OR OPEN HOLE
- MONITORING WELL SAMPLE TCE ANALYTICAL RESULT — 174
- 100 GROUND WATER ISOCONCENTRATION CONTOUR SHOWING APPROXIMATE EXTENT OF TCE

NOTES:

GROUND SURFACE, LOCATIONS, CONTACTS AND DEPTHS ARE APPROXIMATE

ND = NOT DETECTED

TCE = TRICHLOROETHENE

ALL GROUND WATER SAMPLE RESULTS FROM MARCH OR JUNE 2008, UNLESS OTHERWISE NOTED

APPROXIMATE SCALE
0 1000 FT.
0
40 FT.

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

TCE PLUME
CROSS-SECTION

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

SMC/LB	DATE: APRIL 2009	FIGURE : 24

FILE: M:\CAD FILES\WORK\2542\2009 RAPR\2542-33.DWG, DATE: 05/27/2009 03:39:46PM

TABLES

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

Revised Sample Locations		Sampling Month	Analytical Parameters
Surface Water:	SW-1, SW-2, SW-3, SW-4	March, September	VOC+10
Background Wells: Plume Wells: Compliance Wells:	505A,B; 507B; 508A; 532A 502A,B; 506A,B; 507A; 508B; 546A; 549A,B; 550B,C P522A,B,C; 544A,B,C; 545A,B,C	March	VOC+10
Plume Wells: Compliance Wells:	502A,B; 506A,B; 507A; 508B; 546A; 549A,B, 550B,C P522A,B,C; 544A,B,C; 545A,B,C	September	VOC+10

TABLE 2
GROUND WATER ELEVATION DATA
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Monitoring Well	Well Depths ft. (bgs)	TOC Elevation ft. (MSL)	September 5, 2007		March 18, 2008		June 2, 2008		November 6, 2008		March 10-11, 2009	
			Depth to Water	GW Elevation ft. (MSL)	Depth to Water	GW Elevation ft. (MSL)	Depth to Water	GW Elevation ft. (MSL)	Depth to Water	GW Elevation ft. (MSL)	Depth to Water	GW Elevation ft. (MSL)
MW-501A	75.5	120.90	MISSING	NM	MISSING	NM	10.62	110.28	12.07	108.83	11.02	109.88
MW-501B	19	121.07	MISSING	NM	MISSING	NM	3.75	117.32	4.52	116.55	4.41	116.66
MW-502A	75.5	103.89	4.81	99.08	3.15	100.74	3.79	100.10	3.51	100.38	3.98	99.91
MW-502B	19	103.85	3.66	100.19	2.09	101.76	2.57	101.28	4.59	99.26	3.91	99.94
MW-503A	73	110.26	MISSING	NM	MISSING	NM	6.02	104.24	7.16	103.10	6.24	104.02
MW-503B	24.4	110.58	MISSING	NM	MISSING	NM	5.50	105.08	6.51	104.07	5.77	104.81
MW-504A	76.5	112.10	6.54	101.73	3.81	108.29	4.92	107.18	7.33	104.77	6.04	106.06
MW-504B	19.8	112.09	MISSING	NM	MISSING	NM	5.78	106.31	NM	NM	NM	NM
MW-505A	75	108.27	6.98	101.29	4.51	103.76	5.59	102.68	7.20	101.07	6.48	101.79
MW-505B	20	107.73	7.63	100.64	5.42	102.31	6.25	101.48	7.40	100.33	6.33	101.40
MW-506A	96.3	122.22	29.36	92.86	NM	NM	28.62	93.60	11.08	111.14	29.51	92.71
MW-506B	25	121.28	8.84	112.44	7.28	114.00	7.80	113.48	30.10	91.18	9.47	111.81
MW-507A	151	176.39	54.03	122.36	52.72	123.67	53.23	123.16	55.48	120.91	54.90	121.49
MW-507B	60	176.39	48.41	127.98	47.09	129.30	47.50	128.89	50.70	125.69	49.13	127.26
MW-508A	263	186.85	65.64	121.21	64.31	122.54	64.68	122.17	67.05	119.80	66.37	120.48
MW-508B	68	187.13	57.52	129.61	56.42	130.71	56.62	130.51	58.55	128.58	57.90	129.23
PZ-521B	100.26	99.84	10.17	89.67	8.73	91.11	9.19	90.65	10.45	89.39	10.41	89.43
PZ-521C	15.5	100.07	8.86	91.21	7.22	92.85	7.88	92.19	9.33	90.74	8.31	91.76
PZ-522A	197	93.85	11.85	82.00	11.00	82.85	11.70	82.15	12.08	81.77	11.93	81.92
PZ-522B	100	93.78	10.70	83.08	10.02	83.76	10.45	83.33	10.62	83.16	10.60	83.18
PZ-522C	17.5	93.78	7.65	86.13	7.12	86.66	7.33	86.45	7.66	86.12	7.63	86.15
PZ-523B	103	94.05	12.18	81.87	11.76	82.29	11.96	82.09	12.06	81.99	12.14	81.91
PZ-524A	199	68.33	NM	NM	4.32	64.01	4.69	63.64	4.9	63.43	4.72	63.61
PZ-524B	99	68.39	6.20	62.13	5.45	62.94	6.00	62.39	6.18	62.21	4.99	63.40
PZ-524C	15	67.29	5.33	63.00	4.76	62.53	4.91	62.38	5.11	62.18	5.03	62.26
MW-531A	142.2	138.43	12.45	125.98	11.21	127.22	11.78	126.65	12.93	125.50	12.82	125.61
MW-531B	47.9	138.46	9.54	128.92	8.83	129.63	9.06	129.40	9.81	128.65	9.77	128.69
MW-532A	250	186.55	53.78	132.77	53.11	133.44	53.41	133.14	55.17	131.38	55.33	131.22
MW-532B	102.7	185.35	50.08	135.27	49.75	135.60	50.25	135.10	50.25	135.10	51.40	133.95
MW-544A	197	85.81	11.18	74.63	10.38	75.43	10.78	75.03	11.22	74.59	11.22	74.59
MW-544B	100	86.00	8.65	77.35	7.86	78.14	8.26	77.74	8.79	77.21	8.65	77.35
MW-544C	23	86.04	4.00	82.04	3.14	82.90	NM	NM	3.98	82.06	3.99	82.05
MW-545A	197	85.69	19.24	66.45	18.72	66.97	18.98	66.71	19.5	66.19	19.03	66.66
MW-545B	92	85.80	19.94	65.86	19.34	66.46	19.68	66.12	20.11	65.69	19.74	66.06
MW-545C	35	85.75	14.05	71.70	13.41	72.34	13.78	71.97	14.57	71.18	14.06	71.69
MW-546A	200	106.55	18.65	87.90	18.35	88.20	18.54	88.01	18.75	87.80	19.39	87.16
MW-546B	100	107.06	14.18	92.88	13.02	94.04	13.51	93.55	13.34	93.72	14.19	92.87
MW-546C	31	108.16	12.15	96.01	9.74	98.42	10.5	97.66	12.07	96.09	11.50	96.66
MW-547A	200	98.17	7.99	90.18	6.52	91.65	7.28	90.89	8.15	90.02	8.09	90.08
MW-547B	100	98.25	7.95	90.22	6.58	91.67	7.15	91.10	8.15	90.10	8.15	90.10
MW-547C	22	98.32	7.29	90.88	5.84	92.48	6.48	91.84	7.58	90.74	7.49	90.83
MW-549A	215	179.31	55.64	123.67	54.45	124.86	53.00	126.31	56.96	122.35	56.40	122.91
MW-549B	115	179.77	53.51	126.26	52.48	127.29	54.97	124.80	55.17	124.60	54.58	125.19
MW-549C	73.5	179.41	MISSING	NM	MISSING	NM	MISSING	NM	MISSING	NM	MISSING	NM
MW-550B	101	132.56	23.11	109.45	21.42	111.14	22.02	110.54	23.6	108.96	22.67	109.89
MW-550C	50	132.13	21.80	110.33	20.11	112.02	20.71	111.42	22.10	110.03	21.47	110.66
RW-1	150	110.91	58.60	66.40	65.20	45.71	64.00	46.91	65.10	45.81	70.80	40.11

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 groudn water gauging activities.
MISSING = Well was not located during gauging event
NM = Not Measured

Note: Wells MW-509A, MW-509B, MW-510A, MW-510B, PZ-523A, PZ-523C, MW-542A, MW-542B, and MW-542C have not been located for more than 3 years, and appear to have been destroyed by construction activities.

Table 3
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)

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-501B	25-43364	7/6/1993	121.09	PVC/2	18	8 to 18	113 to 103
MW-502B	25-43366	6/29/1993	103.85	PVC/2	18	8 to 18	96 to 86
MW-503B	25-43368	6/22/1993	110.58	PVC/2	23.7	8.7 to 23.7	102 to 87
MW-504B	25-43520	7/15/1993	112.09	PVC/2	19.5	6.5 to 19.5	106 to 93
MW-505B	25-43522	7/20/1993	103.73	PVC/2	19.7	9.7 to 19.7	94 to 84
MW-506B	25-43517	7/21/1993	121.28	PVC/2	24.6	14.6 to 24.6	107 to 97
MW-507B	25-43516	9/17/1993	176.39	PVC/2	59.7	49.7 to 59.7	127 to 117
MW-508B	25-43524	7/27/1993	187.13	PVC/2	67.7	57.7 to 67.7	129 to 119
MW-509B *	25-43826	9/23/1993	230.77	PVC/2	86	76 to 86	155 to 145
MW-510B *	25-43823	9/8/1993	182.17	PVC/2	72	62 to 72	120 to 110
MW-531B	25-47891	10/21/1995	138.46	PVC/2	48	38 to 48	100 to 90
MW-532B	25-47893	10/20/1995	185.35	PVC/2	102.7	93 to 103	92 to 82
MW-542C *	25-54836	8/16/1999	99.57	PVC/2	33	13 to 33	87 to 67
MW-544C	25-54779	10/13/1999	86.04	PVC/2	23	3 to 23	83 to 63
MW-545C	25-54786	10/9/1999	85.75	PVC/2	35	15 to 35	71 to 51
MW-546C	25-55005	10/19/1999	108.16	PVC/2	32	12 to 32	96 to 76
MW-547C	25-54780	10/11/1999	98.32	PVC/2	22	2 to 22	96 to 76
MW-549B	25-60735	10/31/2002	179.77	PVC/2	110	90 to 110	90 to 70
MW-549C *	25-60739	10/31/2002	179.41	PVC/2	70	50 to 70	129 to 109
MW-550C	25-60738	10/31/2002	132.13	PVC/2	50	30 to 50	102 to 82
PZ-521C	25-45029	5/26/1994	100.07	PVC/2	15.2	5.2 to 15.2	95 to 85
PZ-522C	25-45020	6/4/1994	93.78	PVC/2	17.7	7.7 to 17.7	86 to 76
PZ-523C *	25-45023	6/29/1994	93.91	PVC/2	13.5	5.5 to 13.5	88 to 80
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)

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-501A	25-43363	7/7/1993	120.90	PVC/2	74.5	64.5 to 74.5	56 to 46
MW-502A	25-43365	7/8/1993	103.87	PVC/2	74.7	64.7 to 74.7	39 to 29
MW-503A	25-43367	6/30/1993	110.26	PVC/2	71.5	61.5 to 71.5	49 to 39
MW-504A	25-43521	7/15/1993	112.10	PVC/2	76	66 to 76	46 to 36
MW-505A	25-43523	7/20/1993	103.85	PVC/2	75	65 to 75	39 to 29
MW-506A	25-43518	7/22/1993	122.22	PVC/2	99	89 to 99	34 to 24
MW-507A	25-43821	10/5/1993	176.39	PVC/4	152	142 to 152	35 to 25
MW-510A *	25-43824	9/14/1993	182.22	PVC/4	203	193 to 203	-11 to -21
MW-531A	25-47890	10/12/1995	138.43	PVC/2	142	132 to 142	6 to -4
MW-542B *	25-54835	8/20/1999	99.71	PVC/2	100	80 to 100	20 to 0
MW-544B	25-54778	8/23/1999	86.00	PVC/2	100	80 to 100	6 to -14
MW-545B	25-54785	10/12/1999	85.80	PVC/2	93	73 to 93	13 to -7
MW-546B	25-55004	10/20/1999	107.06	PVC/2	100	80 to 100	27 to 7
MW-547B	25-54781	10/13/1999	98.46	PVC/2	100	80 to 100	18 to -2
MW-549A	25-60736	10/31/2002	179.31	PVC/2	210	190 to 210	-11 to -31
MW-550B	25-60737	10/31/2002	132.56	PVC/2	100	80 to 100	53 to 33
PZ-521B	25-45028	5/20/1994	99.84	PVC/2	102.6	92.6 to 102.6	7 to -3
PZ-522B	25-45019	6/16/1994	93.78	PVC/2	101	91 to 101	3 to -7
PZ-523B	25-45022	6/21/1994	94.05	PVC/2	102	92 to 102	2 to -8
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)

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-508A	25-43525	10/1/1993	186.85	PVC/4	262.7	252.7 to 262.7	-66 to -76
MW-509A *	25-43825	9/28/1993	231.30	PVC/4	425	423 to 425	-192 to -194
MW-532A	25-47892	10/18/1995	186.55	PVC/2	263	253 to 263	-66 to -76
MW-542A *	25-54834	8/23/1999	99.65	PVC/2	200	180 to 200	-80 to -100
MW-544A	25-54777	10/15/1999	85.81	PVC/2	200	180 to 200	-94 to -114
MW-545A	25-54784	10/6/1999	85.69	PVC/2	200	180 to 200	-94 to -114
MW-546A	25-55003	10/21/1999	106.55	PVC/2	200	180 to 200	-73 to -93
MW-547A	25-54782	10/15/1999	98.33	PVC/2	200	180 to 200	-82 to -102
PZ-522A	25-45018	6/9/1994	93.85	PVC/2	197.7	187.7 to 197.7	-94 to -104

ft.msl = Feet Above Mean Sea Level
N/A = Not Available
* = Well Has Been Buried or Destroyed

Table 3
Monitoring Well Construction Details
Former Lockheed Electronics Corporation Facility - Watchung, New Jersey

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)
PZ-523A *	25-45021	6/28/1994	94.13	PVC/2	197.7	187.7 to 197.7	-94 to -104
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
N/A = Not Available
* = Well Has Been Buried or Destroyed

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-502A	MW-502B	MW-506A	MW-506B	MW-507A	MW-508B	PZ-522A	PZ-522B	PZ-522C	MW-544A	MW-544B
Lab Sample Number	**New Jersey**	858912	858911	858915	858916	858917	858918	858922	858923	858924	858929	858930
Sampling Date	**Ground Water**	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0	2.0	1.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.2 U	0.2 U	0.5 U	0.2 U	1.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	*1*	0.2 U	0.2 U	0.5 U	0.2 U	1.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform	*4*	0.2 U	0.2 U	0.4 U	0.2 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane	*10*	0.4 U	0.4 U	0.9 U	0.4 U	2.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Carbon Tetrachloride	*1*	0.3 U	0.3 U	0.7 U	0.3 U	1.7 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorobenzene	*50*	0.2 U	0.2 U	0.5 U	0.2 U	1.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroethane	*– –*	0.4 U	0.4 U	0.9 U	0.4 U	2.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
2-Chloroethyl Vinyl Ether	*– –*	0.2 U	0.2 U	0.5 U	0.2 U	1.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	*70*	0.9	0.5	0.6	0.4	1.0 U	1.8	2.5	3.7	0.2 U	0.2 U	0.2 U
Chloromethane	*– –*	0.4 U	0.4 U	0.9 U	0.4 U	2.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Dibromochloromethane	*1*	0.3 U	0.3 U	0.5 U	0.3 U	1.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-Dichloroethane	*50*	0.3 U	0.3 U	0.5 U	0.3 U	1.3 U	0.3 U	0.4	2.5	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	*2*	0.3 U	0.3 U	0.5 U	0.3 U	1.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-Dichloroethene	*1*	0.5 U	0.5 U	0.9 U	0.5 U	2.3 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	*70*	0.3 U	7.7	4.4	0.3 U	7.4	0.3 U	0.3 U	26	0.3 U	0.3 U	0.3 U
trans-1,2-Dichloroethene	*100*	0.4 U	0.4 U	0.8 U	0.4 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	*1*	0.5 U	0.5 U	1 U	0.5 U	2.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	*– –*	0.1 U	0.1 U	0.3 U	0.1 U	0.6 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
trans-1,3-Dichloropropene	*– –*	0.2 U	0.2 U	0.3 U	0.2 U	0.8 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	*700*	0.4 U	0.4 U	0.8 U	0.4 U	2.0 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Methylene Chloride	*3*	0.4 U	0.4 U	0.8 U	0.4 U	2.0 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Tetrachloroethene	*1*	0.4 U	0.6	**1.5**	0.4 U	2.1 U	0.4 U	0.4 U	**1.5**	0.4 U	0.4 U	0.4 U
1,1,2,2-Tetrachloroethane	*1*	0.4 U	0.4 U	0.7 U	0.4 U	1.8 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Toluene	*600*	0.3 U	0.3 U	0.6 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1,1-Trichloroethane	*30*	0.4 U	0.4 U	0.8 U	0.4 U	1.9 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,1,2-Trichloroethane	*3*	0.2 U	0.2 U	0.4 U	0.2 U	1.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichloroethene	*1*	0.5	**1.6**	**380**	**7.4**	**470**	**28**	**3.1**	**12**	0.4 U	0.4 U	0.7
Trichlorofluoromethane	*2000*	0.4 U	0.4 U	0.7 U	0.4 U	1.8 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Vinyl Chloride	*1*	0.2 U	0.2 U	0.5 U	0.2 U	1.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Xylene (Total)	*1000*	0.4 U	0.4 U	0.8 U	0.4 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Total Confident Conc. VOAs (s)		1.4	10.4	387	7.8	477	29.8	6.0	45.7	ND	ND	0.70
Total Estimated Conc. VOA TICs (s)	*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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-544C	MW-545A	MW-545B	MW-545C	MW-546A	MW-549A	MW-549B	MW-550B	MW-550C	FB090607	Trip Blank
Lab Sample Number	**New Jersey**	858931	858925	858926	858927	858921	858913	858914	858919	858920	858928	858932
Sampling Date	**Ground Water**	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/06/07	09/04/07
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0	1.0	1.0	1.0	5.0	10.0	5.0	1.0	1.0	1.0
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*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.2 U	2.4 U	1.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	*1*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.2 U	2.5 U	1.2 U	0.2 U	0.2 U	0.2 U
Bromoform	*4*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	2.1 U	1.0 U	0.2 U	0.2 U	0.2 U
Bromomethane	*10*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2.2 U	4.4 U	2.2 U	0.4 U	0.4 U	0.4 U
Carbon Tetrachloride	*1*	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.7 U	3.4 U	1.7 U	0.3 U	0.3 U	0.3 U
Chlorobenzene	*50*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.2 U	2.5 U	1.2 U	0.2 U	0.2 U	0.2 U
Chloroethane	*– –*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2.2 U	4.3 U	2.2 U	0.4 U	0.4 U	0.4 U
2-Chloroethyl Vinyl Ether	*– –*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.2 U	2.5 U	1.2 U	0.2 U	0.2 U	0.2 U
Chloroform	*70*	0.2 U	0.4	0.4	0.6	3.8	1.0 U	2.0 U	1.0 U	0.3	0.2 U	0.2 U
Chloromethane	*– –*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2.2 U	4.4 U	2.2 U	0.4 U	0.4 U	0.4 U
Dibromochloromethane	*1*	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U	2.7 U	1.4 U	0.3 U	0.3 U	0.3 U
1,1-Dichloroethane	*50*	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.3 U	2.6 U	1.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	*2*	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U	2.7 U	1.4 U	0.3 U	0.3 U	0.3 U
1,1-Dichloroethene	*1*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3 U	4.6 U	2.3 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	*70*	1.0	0.3 U	0.3 U	0.3 U	0.8	3.6	7.8	5.5	1.2	0.3 U	0.3 U
trans-1,2-Dichloroethene	*100*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U	3.9 U	2.0 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	*1*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4 U	4.9 U	2.4 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	*– –*	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.6 U	1.3 U	0.6 U	0.1 U	0.1 U	0.1 U
trans-1,3-Dichloropropene	*– –*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.8 U	1.6 U	0.8 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	*700*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2.0 U	4.1 U	2.0 U	0.4 U	0.4 U	0.4 U
Methylene Chloride	*3*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2.0 U	4.0 U	2.0 U	0.4 U	0.4 U	0.4 U
Tetrachloroethene	*1*	**2.8**	**3.7**	0.4 U	0.4 U	0.4 U	2.1 U	**4.8**	**4.0**	0.4 U	0.4 U	0.4 U
1,1,2,2-Tetrachloroethane	*1*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	1.8 U	3.5 U	1.8 U	0.4 U	0.4 U	0.4 U
Toluene	*600*	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.5 U	3 U	1.5 U	0.3 U	0.3 U	0.3 U
1,1,1-Trichloroethane	*30*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	1.9 U	3.8 U	1.9 U	0.4 U	0.4 U	0.4 U
1,1,2-Trichloroethane	*3*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.1 U	2.2 U	1.1 U	0.2 U	0.2 U	0.2 U
Trichloroethene	*1*	**1.6**	0.4 U	0.4 U	0.4 U	**120**	**850**	**1000**	**650**	**110**	0.4 U	0.4 U
Trichlorofluoromethane	*2000*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	1.8 U	3.7 U	1.8 U	0.4 U	0.4 U	0.4 U
Vinyl Chloride	*1*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.2 U	2.4 U	1.2 U	0.2 U	0.2 U	0.2 U
Xylene (Total)	*1000*	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2.0 U	4.0 U	2.0 U	0.4 U	0.4 U	0.4 U
Total Confident Conc. VOAs (s)		5.4	4.1	0.4	0.6	125	854	1013	660	112	ND	ND
Total Estimated Conc. VOA TICs (s)	*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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-502A	MW-502B	MW-505A	MW-505B	MW-506B	MW-507A	MW-507B	MW-508A	MW-508B	PZ-522A	PZ-522B
Lab Sample Number	**New Jersey**	J86202-10	J86202-11	J86202-5	J86202-6	J86202-12	J86202-13	J86202-7	J86202-8	J86202-14	J86202-19	J86202-20
Sampling Date	**Ground Water**	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.18 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
Bromodichloromethane	*1*	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Bromoform	*4*	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
Bromomethane	*10*	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Carbon Tetrachloride	*1*	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
Chlorobenzene	*50*	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
Chloroethane	*– –*	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Chloroethyl Vinyl Ether	*– –*	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Chloroform	*70*	0.98 J	0.19 U	0.80 J	1.2	0.52 J	0.38 J	0.80 J	0.19 U	1.1	2.4	3.7
Chloromethane	*– –*	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
Dibromochloromethane	*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
1,1-Dichloroethane	*50*	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	2.7
1,2-Dichloroethane	*2*	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
1,1-Dichloroethene	*1*	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
cis-1,2-Dichloroethene	*70*	0.56 U	27.5	0.56 U	0.56 U	0.56 U	9.00	0.56 U	17.2	0.56 U	0.56 U	24.1
trans-1,2-Dichloroethene	*100*	0.38 U	0.71 J	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
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	*– –*	0.22 U	0.22 U	0.22 U	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-1,3-Dichloropropene	*– –*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Ethylbenzene	*700*	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	*3*	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
Tetrachloroethene	*1*	0.28 U	0.48 J	0.28 U	0.28 U	0.28 U	0.41 J	0.28 U	0.28 U	0.28 U	0.28 U	**1.7**
1,1,2,2-Tetrachloroethane	*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
Toluene	*600*	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
1,1,1-Trichloroethane	*30*	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	*3*	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
Trichloroethene	*1*	0.53 J	**25.9**	0.20 U	0.20 U	**7.1**	**174**	**14.7**	**9.3**	**21.6**	**2.4**	**9.0**
Trichlorofluoromethane	*2000*	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Vinyl Chloride	*1*	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.97 J	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Xylene (Total)	*1000*	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Total Confident Conc. VOAs (s)		1.5	54.6	0.80	1.2	7.6	185	15.5	26.5	22.7	4.8	41.2
Total Estimated Conc. VOA TICs (s)	*500*	ND	ND	ND	ND	ND	ND	ND	19 J	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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		PZ-522C	MW-532A	MW-544A	MW-544B	MW-544C	MW-545A	MW-545B	MW-545C	MW-546A	MW-549A	MW-549B
Lab Sample Number	**New Jersey**	J86202-21	J86202-9	J86202-22	J86202-23	J86202-24	J86202-25	J86202-26	J86202-27	J86202-15	J86202-16	J86202-17
Sampling Date	**Ground Water**	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08	03/19/08
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.5	5.0
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*	0.18 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	0.44 U	0.88 U
Bromodichloromethane	*1*	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35 U	0.70 U
Bromoform	*4*	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	0.68 U	1.36 U
Bromomethane	*10*	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	1.9 U	3.8 U
Carbon Tetrachloride	*1*	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	0.76 U	1.5 U
Chlorobenzene	*50*	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	0.31 U	0.63 U
Chloroethane	*– –*	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.81 U	1.6 U
2-Chloroethyl Vinyl Ether	*– –*	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	1.8 U	3.6 U
Chloroform	*70*	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.42 J	0.38 J	0.88 J	3.7	0.47 U	1.6 J
Chloromethane	*– –*	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	1.1 U	2.1 U
Dibromochloromethane	*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	0.44 U	0.88 U
1,1-Dichloroethane	*50*	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	1.8 U	3.5 U
1,2-Dichloroethane	*2*	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	1.2 U	2.4 U
1,1-Dichloroethene	*1*	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	1.4 U	2.9 U
cis-1,2-Dichloroethene	*70*	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.92 J	3.5	7.0
trans-1,2-Dichloroethene	*100*	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	0.95 U	1.9 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	1.0 U	2.0 U
cis-1,3-Dichloropropene	*– –*	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.54 U	1.1 U
trans-1,3-Dichloropropene	*– –*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.40 U	0.79 U
Ethylbenzene	*700*	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.57 U	1.1 U
Methylene Chloride	*3*	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	0.47 U	0.94 U
Tetrachloroethene	*1*	0.28 U	0.96 J	0.28 U	0.28 U	0.47 J	**3.7**	0.28 U	0.28 U	0.28 U	**1.2** J	**4.5** J
1,1,2,2-Tetrachloroethane	*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	0.65 U	1.3 U
Toluene	*600*	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	0.78 U	1.6 U
1,1,1-Trichloroethane	*30*	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.61 U	1.2 U
1,1,2-Trichloroethane	*3*	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	1.5 U	3.1 U
Trichloroethene	*1*	0.20 U	**33.0**	0.35 J	0.79 J	0.20 U	0.32 J	0.20 U	0.20 U	**116**	**801**	**867**
Trichlorofluoromethane	*2000*	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	3.1 U	6.2 U
Vinyl Chloride	*1*	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.88 U	1.80 U
Xylene (Total)	*1000*	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.61 U	1.50 J
Total Confident Conc. VOAs (s)		ND	34.0	0.35	0.79	0.47	4.4	0.38	0.88	121	806	882
Total Estimated Conc. VOA TICs (s)	*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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-550B	MW-550C	FB031808	FB031908	TB031908	MW-501A	MW-501B	MW-503A	MW-503B	MW-504A	MW-504B
Lab Sample Number	**New Jersey**	J86202-18	J87546-1	J86202-28	J86202-29	J86202-30	J92425-3	J92425-2	J92425-4	J92425-5	J92425-7	J92425-6
Sampling Date	**Ground Water**	03/19/08	04/04/08	03/19/08	03/19/08	03/19/08	06/02/08	06/02/08	06/02/08	06/02/08	06/04/08	06/04/08
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	2.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.44 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
Bromodichloromethane	*1*	0.35 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Bromoform	*4*	0.68 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
Bromomethane	*10*	1.9 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Carbon Tetrachloride	*1*	0.76 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
Chlorobenzene	*50*	0.31 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
Chloroethane	*– –*	0.81 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Chloroethyl Vinyl Ether	*– –*	1.8 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Chloroform	*70*	0.47 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.22 J	0.19 U	0.26 J	0.19 U	1.9
Chloromethane	*– –*	1.1 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
Dibromochloromethane	*1*	0.44 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
1,1-Dichloroethane	*50*	1.8 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
1,2-Dichloroethane	*2*	1.2 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
1,1-Dichloroethene	*1*	1.4 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
cis-1,2-Dichloroethene	*70*	5.8	0.98 J	0.56 U	0.56 U	0.56 U	0.56 U	9.5	0.56 U	1.3	0.56 U	0.56 U
trans-1,2-Dichloroethene	*100*	0.95 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
1,2-Dichloropropane	*1*	1.0 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	*– –*	0.54 U	0.22 U	0.22 U	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-1,3-Dichloropropene	*– –*	0.40 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Ethylbenzene	*700*	0.57 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	*3*	0.47 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
Tetrachloroethene	*1*	**4.3**	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.77 J	0.28 U	0.32 J	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	*1*	0.65 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
Toluene	*600*	0.78 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
1,1,1-Trichloroethane	*30*	0.61 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	*3*	1.5 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
Trichloroethene	*1*	**646**	**123**	0.20 U	0.20 U	0.20 U	**2.5**	**44.1**	0.20 U	**45.9**	0.29	0.20 U
Trichlorofluoromethane	*2000*	3.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Vinyl Chloride	*1*	0.88 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Xylene (Total)	*1000*	0.61 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Total Confident Conc. VOAs (s)		656	124	ND	ND	ND	2.5	54.6	ND	47.8	0.29	1.9
Total Estimated Conc. VOA TICs (s)	*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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-506A	PZ-521B	PZ-521C	PZ-523B	PZ-524A	PZ-524B	PZ-524C	MW-531A	MW-531B	MW-532B	MW-546B
Lab Sample Number	**New Jersey**	J92425-1	J92425-8	J92425-9	J92425-10	J92425-13	J92425-14	J92425-15	J92425-23	J92425-22	J92425-11	J92425-21
Sampling Date	**Ground Water**	06/02/08	06/04/08	06/04/08	06/04/08	06/04/08	06/04/08	06/04/08	06/05/08	06/05/08	06/04/08	06/05/08
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.18 U	0.18 U	0.26 J	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	*1*	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Bromoform	*4*	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
Bromomethane	*10*	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Carbon Tetrachloride	*1*	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
Chlorobenzene	*50*	0.13 U	0.13 U	0.90 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroethane	*– –*	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Chloroethyl Vinyl Ether	*– –*	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Chloroform	*70*	0.66 J	0.19 U	0.19 U	0.58 J	0.19 U	0.19 U	0.23 J	0.19 U	0.19 U	0.19 U	0.28 J
Chloromethane	*– –*	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
Dibromochloromethane	*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
1,1-Dichloroethane	*50*	0.70 U	0.70 U	4.0	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
1,2-Dichloroethane	*2*	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
1,1-Dichloroethene	*1*	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
cis-1,2-Dichloroethene	*70*	3.6	0.56 U	2.3	0.56 U	1.4	8.4	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
trans-1,2-Dichloroethene	*100*	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
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	*– –*	0.22 U	0.22 U	0.22 U	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-1,3-Dichloropropene	*– –*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Ethylbenzene	*700*	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	*3*	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
Tetrachloroethene	*1*	**1.8**	0.28 U	0.28 U	0.28 U	0.28 U	**48.6**	0.39 J	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	*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
Toluene	*600*	0.31 U	0.31 U	0.31 U	0.31 U	0.35 J	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1,1-Trichloroethane	*30*	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	*3*	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
Trichloroethene	*1*	**139**	**88.1**	0.24	**2.2**	0.20	**2.3**	0.62 J	0.20 U	0.20 U	0.28	**1.2**
Trichlorofluoromethane	*2000*	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Vinyl Chloride	*1*	0.35 U	0.35 U	**1.9**	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Xylene (Total)	*1000*	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Total Confident Conc. VOAs (s)		145	88.1	9.6	2.8	2.0	59.3	1.2	ND	ND	0.28	1.5
Total Estimated Conc. VOA TICs (s)	*500*	ND	ND	10.7 J	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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-546C	MW-547A	MW-547B	MW-547C	FB060408	FB060508	TB	MW-502A	MW-502B	MW-506A	MW-506B
Lab Sample Number	**New Jersey**	J92425-20	J92425-16	J92425-17	J92425-18	J92425-12	J92425-19	J92425-24	JA4976-5	JA4976-6	JA4976-7	JA4976-8
Sampling Date	**Ground Water**	06/05/08	06/04/08	06/04/08	06/04/08	06/04/08	06/05/08	06/05/08	11/06/08	11/06/08	11/06/08	11/06/08
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.12 U	0.12 U	0.12 U	0.12 U
Bromodichloromethane	*1*	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
Bromoform	*4*	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.19 U	0.19 U	0.19 U
Bromomethane	*10*	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon Tetrachloride	*1*	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorobenzene	*50*	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
Chloroethane	*– –*	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Chloroethyl Vinyl Ether	*– –*	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.96 U	0.96 U	0.96 U	0.96 U
Chloroform	*70*	0.19 U	0.19 U	1.1	0.19 U	0.35 J	0.19 U	0.19 U	1.0	0.6 J	0.7 J	0.6 J
Chloromethane	*– –*	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	*1*	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1-Dichloroethane	*50*	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.10 U	0.10 U	0.10 U	0.10 U
1,2-Dichloroethane	*2*	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-Dichloroethene	*1*	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.17 U	0.17 U	0.17 U	0.17 U
cis-1,2-Dichloroethene	*70*	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.15 U	6.8	1.3	0.15 U
trans-1,2-Dichloroethene	*100*	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.18 U	0.18 U	0.18 U	0.18 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	0.33 U	0.33 U	0.33 U	0.33 U
cis-1,3-Dichloropropene	*– –*	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.16 U	0.16 U	0.16 U
trans-1,3-Dichloropropene	*– –*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.21 U	0.21 U	0.21 U	0.21 U
Ethylbenzene	*700*	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	*3*	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.12 U
Tetrachloroethene	*1*	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.58 U	0.58 U	**1.6**	0.58 U
1,1,2,2-Tetrachloroethane	*1*	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.10 U	0.10 U	0.10 U	0.10 U
Toluene	*600*	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1,1-Trichloroethane	*30*	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1,2-Trichloroethane	*3*	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.15 U	0.15 U	0.15 U	0.15 U
Trichloroethene	*1*	0.20 U	0.20 U	**2.0**	0.22	0.20 U	0.20 U	0.20 U	0.6 J	**4.9**	**1.8**	**2.7**
Trichlorofluoromethane	*2000*	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	0.44 U	0.44 U	0.44 U
Vinyl Chloride	*1*	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.16 U	0.16 U	0.16 U	0.16 U
Xylene (Total)	*1000*	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.15 U	0.15 U
Total Confident Conc. VOAs (s)		ND	ND	3.1	0.22	0.35	ND	ND	1.6	12.3	5.4	3.3
Total Estimated Conc. VOA TICs (s)	*500*	ND	ND	ND	18 J	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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-507A	MW-508B	PZ-522A	PZ-522B	PZ-522C	MW-544A	MW-544B	MW-544C	MW-545A	MW-545B	MW-545C
Lab Sample Number	**New Jersey**	JA4976-9	JA4976-10	JA4976-16	JA4976-17	JA4976-18	JA4976-19	JA4976-20	JA4976-21	JA4976-22	JA4976-23	JA4976-24
Sampling Date	**Ground Water**	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Bromodichloromethane	*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
Bromoform	*4*	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
Bromomethane	*10*	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
Carbon Tetrachloride	*1*	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorobenzene	*50*	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
Chloroethane	*– –*	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
2-Chloroethyl Vinyl Ether	*– –*	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
Chloroform	*70*	0.8 J	2.1	3.7	3.4	0.09 U	0.09 U	0.09 U	0.9 J	0.09 U	0.09 U	0.09 U
Chloromethane	*– –*	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	*1*	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1-Dichloroethane	*50*	0.10 U	0.10 U	0.5 J	2.9	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
1,2-Dichloroethane	*2*	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
1,1-Dichloroethene	*1*	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
cis-1,2-Dichloroethene	*70*	5.0	0.15 U	0.15 U	17.6	0.15 U	0.15 U	0.15 U	0.62 J	0.15 U	0.15 U	0.15 U
trans-1,2-Dichloroethene	*100*	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
1,2-Dichloropropane	*1*	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
cis-1,3-Dichloropropene	*– –*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
trans-1,3-Dichloropropene	*– –*	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
Ethylbenzene	*700*	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	*3*	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Tetrachloroethene	*1*	0.7 J	0.58 U	0.58 U	**1.5**	0.58 U	0.58 U	0.58 U	**2.1**	**3.5**	0.58 U	0.58 U
1,1,2,2-Tetrachloroethane	*1*	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toluene	*600*	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
1,1,1-Trichloroethane	*30*	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1,2-Trichloroethane	*3*	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
Trichloroethene	*1*	**417**	**27.7**	**3.0**	**6.0**	0.45 U	0.45 U	0.87 J	**1.1**	0.45 U	0.45 U	0.45 U
Trichlorofluoromethane	*2000*	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Vinyl Chloride	*1*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Xylene (Total)	*1000*	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
Total Confident Conc. VOAs (s)		423	29.8	7.2	31.4	ND	ND	0.87	4.7	3.5	ND	ND
Total Estimated Conc. VOA TICs (s)	*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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-546A	MW-549A	MW-549B	MW-550B	MW-550C	FB090607	Trip Blank	MW-502A	MW-502B	MW-505A	MW-505B
Lab Sample Number	**New Jersey**	JA4976-11	JA4976-12	JA4976-13	JA4976-14	JA4976-15	JA4976-25	JA4976-26	JA13923-10	JA13923-11	JA13923-5	JA13923-6
Sampling Date	**Ground Water**	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	03/10/09	03/10/09	03/10/09	03/10/09
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.12 U	0.58 U	0.58 U	0.58 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Bromodichloromethane	*1*	0.13 U	0.67 U	0.67 U	0.67 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Bromoform	*4*	0.19 U	0.96 U	0.96 U	0.96 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bromomethane	*10*	0.18 U	0.90 U	0.90 U	0.90 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon Tetrachloride	*1*	0.10 U	0.50 U	0.50 U	0.50 U	0.10 U	0.10 U	0.10 U	0.099 U	0.099 U	0.099 U	0.099 U
Chlorobenzene	*50*	0.13 U	0.66 U	0.66 U	0.66 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroethane	*– –*	0.20 U	1.0 U	1.0 U	1.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Chloroethyl Vinyl Ether	*– –*	0.96 U	4.8 U	4.8 U	4.8 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
Chloroform	*70*	4.2	0.47 U	2.0 J	0.47 U	0.36 J	0.09 U	0.09 U	0.84 J	0.094 U	0.69 J	1.1
Chloromethane	*– –*	0.17 U	0.86 U	0.86 U	0.86 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	*1*	0.11 U	0.56 U	0.56 U	0.56 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1-Dichloroethane	*50*	0.10 U	0.51 U	0.51 U	0.51 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
1,2-Dichloroethane	*2*	0.31 U	1.6 U	1.6 U	1.6 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-Dichloroethene	*1*	0.17 U	0.87 U	0.87 U	0.87 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
cis-1,2-Dichloroethene	*70*	0.9 J	3.6 J	6.5	4.8 J	0.9 J	0.15 U	0.15 U	0.15 U	10.5	0.15 U	0.15 U
trans-1,2-Dichloroethene	*100*	0.18 U	0.88 U	0.88 U	0.88 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2-Dichloropropane	*1*	0.33 U	1.7 U	1.7 U	1.7 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
cis-1,3-Dichloropropene	*– –*	0.16 U	0.81 U	0.81 U	0.81 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
trans-1,3-Dichloropropene	*– –*	0.21 U	1.0 U	1.0 U	1.0 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Ethylbenzene	*700*	0.23 U	1.1 U	1.1 U	1.1 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	*3*	0.12 U	0.58 U	0.58 U	0.58 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Tetrachloroethene	*1*	0.58 U	2.9 U	**5.7**	**3.7** J	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
1,1,2,2-Tetrachloroethane	*1*	0.10 U	0.51 U	0.51 U	0.51 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toluene	*600*	0.20 U	1.0 U	1.0 U	1.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1,1-Trichloroethane	*30*	0.11 U	0.57 U	0.57 U	0.57 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1,2-Trichloroethane	*3*	0.15 U	0.74 U	0.74 U	0.74 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Trichloroethene	*1*	**100**	**837**	**767**	**560**	**58.9**	0.45 U	0.45 U	0.50 J	**11.1**	0.45 U	0.45 U
Trichlorofluoromethane	*2000*	0.44 U	0.44 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Vinyl Chloride	*1*	0.16 U	0.16 U	0.80 U	0.80 U	0.80 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Xylene (Total)	*1000*	0.15 U	0.15 U	0.75 U	0.75 U	0.75 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Total Confident Conc. VOAs (s)		105	841	781	569	60.2	ND	ND	1.3	22.2	0.69	1.1
Total Estimated Conc. VOA TICs (s)	*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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-506A	MW-506B	MW-507A	MW-507B	MW-508A	MW-508B	PZ-522A	PZ-522B	PZ-522C	MW-532A	MW-544A
Lab Sample Number	**New Jersey**	JA13923-12	JA13923-13	JA13923-14	JA13923-7	JA13923-8	JA13923-15	JA13923-21	JA13923-22	JA13923-23	JA13923-9	JA13923-24
Sampling Date	**Ground Water**	03/11/09	03/11/09	03/11/09	03/11/09	03/11/09	03/11/09	03/10/09	03/10/09	03/10/09	03/10/09	03/10/09
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Bromodichloromethane	*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
Bromoform	*4*	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
Bromomethane	*10*	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
Carbon Tetrachloride	*1*	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U
Chlorobenzene	*50*	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
Chloroethane	*– –*	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
2-Chloroethyl Vinyl Ether	*– –*	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
Chloroform	*70*	0.54 J	0.43 J	0.64 J	0.83 J	0.094 U	2.3	2.5	3.4	0.094 U	0.094 U	0.094 U
Chloromethane	*– –*	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	*1*	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1-Dichloroethane	*50*	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	2.7	0.10 U	0.10 U	0.10 U
1,2-Dichloroethane	*2*	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
1,1-Dichloroethene	*1*	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
cis-1,2-Dichloroethene	*70*	0.68 J	0.15 U	1.2	0.15 U	10.0	0.15 U	0.15 U	19.4	0.15 U	0.15 U	0.15 U
trans-1,2-Dichloroethene	*100*	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
1,2-Dichloropropane	*1*	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
cis-1,3-Dichloropropene	*– –*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
trans-1,3-Dichloropropene	*– –*	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
Ethylbenzene	*700*	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	*3*	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Tetrachloroethene	*1*	**1.4**	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	**1.3**	0.58 U	**1.2**	0.58 U
1,1,2,2-Tetrachloroethane	*1*	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toluene	*600*	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
1,1,1-Trichloroethane	*30*	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1,2-Trichloroethane	*3*	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
Trichloroethene	*1*	**2.5**	**1.9**	**47.9**	**1.9**	**4.5**	**16.7**	**2.2**	**5.3**	0.45 U	**31.3**	0.45 U
Trichlorofluoromethane	*2000*	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Vinyl Chloride	*1*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Xylene (Total)	*1000*	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
Total Confident Conc. VOAs (s)		4.4	2.3	49.7	2.7	14.5	19	4.7	32.1	ND	32.5	ND
Total Estimated Conc. VOA TICs (s)	*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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		MW-544B	MW-544C	MW-545A	MW-545B	MW-545C	MW-546A	MW-549A	MW-549B	MW-550B	MW-550C	Field Blank
Lab Sample Number	**New Jersey**	JA13923-25	JA13923-26	JA13923-27	JA13923-28	JA13923-29	JA13923-16	JA13923-17	JA13923-18	JA13923-19	JA13923-20	JA13923-30
Sampling Date	**Ground Water**	03/10/09	03/10/09	03/10/09	03/10/09	03/10/09	03/11/09	03/10/09	03/10/09	03/10/09	03/10/09	03/10/09
Matrix	**Quality**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.5	1.0	1.0
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*	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.29 U	0.12 U	0.12 U
Bromodichloromethane	*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	0.33 U	0.13 U	0.13 U
Bromoform	*4*	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.48 U	0.19 U	0.19 U
Bromomethane	*10*	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.45 U	0.18 U	0.18 U
Carbon Tetrachloride	*1*	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.25 U	0.099 U	0.099 U
Chlorobenzene	*50*	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.33 U	0.13 U	0.13 U
Chloroethane	*– –*	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.50 U	0.20 U	0.20 U
2-Chloroethyl Vinyl Ether	*– –*	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	2.4 U	0.96 U	0.96 U
Chloroform	*70*	0.094 U	0.094 U	0.33 J	0.32 J	1.0	3.6	0.094 U	1.4	0.23 U	0.094 U	0.094 U
Chloromethane	*– –*	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.43 U	0.17 U	0.17 U
Dibromochloromethane	*1*	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.28 U	0.11 U	0.11 U
1,1-Dichloroethane	*50*	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.25 U	0.10 U	0.10 U
1,2-Dichloroethane	*2*	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.78 U	0.31 U	0.31 U
1,1-Dichloroethene	*1*	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U
cis-1,2-Dichloroethene	*70*	0.15 U	1.3	0.15 U	0.15 U	0.15 U	0.57 J	2.4	4.1	4.4	0.36 J	0.15 U
trans-1,2-Dichloroethene	*100*	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.44 U	0.18 U	0.18 U
1,2-Dichloropropane	*1*	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.84 U	0.33 U	0.33 U
cis-1,3-Dichloropropene	*– –*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.40 U	0.16 U	0.16 U
trans-1,3-Dichloropropene	*– –*	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.52 U	0.21 U	0.21 U
Ethylbenzene	*700*	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.56 U	0.23 U	0.23 U
Methylene Chloride	*3*	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.29 U	0.12 U	0.12 U
Tetrachloroethene	*1*	0.58 U	**3.3**	**3.4**	0.58 U	0.58 U	0.58 U	0.62 J	**2.6**	**4.5**	0.58 U	0.58 U
1,1,2,2-Tetrachloroethane	*1*	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.25 U	0.10 U	0.10 U
Toluene	*600*	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.51 U	0.20 U	0.20 U
1,1,1-Trichloroethane	*30*	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.28 U	0.11 U	0.11 U
1,1,2-Trichloroethane	*3*	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.37 U	0.15 U	0.15 U
Trichloroethene	*1*	0.70	**2.1**	0.45 U	0.45 U	0.45 U	**74.6**	**714**	**724**	**494**	**9.3**	0.45 U
Trichlorofluoromethane	*2000*	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	1.1 U	0.44 U	0.44 U
Vinyl Chloride	*1*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.40 U	0.16 U	0.16 U
Xylene (Total)	*1000*	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.37 U	0.15 U	0.15 U
Total Confident Conc. VOAs (s)		0.70	6.7	4.2	0.32	1.0	78.8	717	732	503	9.7	ND
Total Estimated Conc. VOA TICs (s)	*500*	ND	ND	ND	ND	ND	3.1	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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

TABLE 4
GROUND WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 2009
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Sample ID		Trip Blank 1	Trip Blank 2
Lab Sample Number	**New Jersey**	JA13923-31	JA13923-32
Sampling Date	**Ground Water**	03/11/09	03/11/09
Matrix	**Quality**	WATER	WATER
Dilution Factor	**Standard (GWQS)**	1.0	1.0
Units	**ug/L**	ug/L	ug/L
VOLATILE COMPOUNDS (GC/MS)			
Benzene	*1*	0.12 U	0.12 U
Bromodichloromethane	*1*	0.13 U	0.13 U
Bromoform	*4*	0.19 U	0.19 U
Bromomethane	*10*	0.18 U	0.18 U
Carbon Tetrachloride	*1*	0.099 U	0.099 U
Chlorobenzene	*50*	0.13 U	0.13 U
Chloroethane	– –	0.20 U	0.20 U
2-Chloroethyl Vinyl Ether	– –	0.96 U	0.96 U
Chloroform	*70*	0.094 U	0.094 U
Chloromethane	– –	0.17 U	0.17 U
Dibromochloromethane	*1*	0.11 U	0.11 U
1,1-Dichloroethane	*50*	0.10 U	0.10 U
1,2-Dichloroethane	*2*	0.31 U	0.31 U
1,1-Dichloroethene	*1*	0.17 U	0.17 U
cis-1,2-Dichloroethene	*70*	0.15 U	0.15 U
trans-1,2-Dichloroethene	*100*	0.18 U	0.18 U
1,2-Dichloropropane	*1*	0.33 U	0.33 U
cis-1,3-Dichloropropene	– –	0.16 U	0.16 U
trans-1,3-Dichloropropene	– –	0.21 U	0.21 U
Ethylbenzene	*700*	0.23 U	0.23 U
Methylene Chloride	*3*	0.12 U	0.12 U
Tetrachloroethene	*1*	0.58 U	0.58 U
1,1,2,2-Tetrachloroethane	*1*	0.10 U	0.10 U
Toluene	*600*	0.20 U	0.20 U
1,1,1-Trichloroethane	*30*	0.11 U	0.11 U
1,1,2-Trichloroethane	*3*	0.15 U	0.15 U
Trichloroethene	*1*	0.45 U	0.45 U
Trichlorofluoromethane	*2000*	0.44 U	0.44 U
Vinyl Chloride	*1*	0.16 U	0.16 U
Xylene (Total)	*1000*	0.15 U	0.15 U
Total Confident Conc. VOAs (s)		ND	ND
Total Estimated Conc. VOA TICs (s)	*500*	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 GWQC
Numbers in italics are NJ Fresh Water Quality Criteria.

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

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

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

Q - Qualifiers
ug/L - micrograms/Liter
D - Concentration reported at dilution
GWQS = New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
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	Units	Q
08/11/93	MW-505A	<GWQS	ug/L	U
10/19/93	MW-505A	<GWQS	ug/L	U
04/26/94	MW-505A	<GWQS	ug/L	U
11/08/94	MW-505A	<GWQS	ug/L	U
05/31/95	MW-505A	<GWQS	ug/L	U
04/02/96	MW-505A	<GWQS	ug/L	J
09/23/97	MW-505A	<GWQS	ug/L	U
09/24/98	MW-505A	<GWQS	ug/L	U
11/09/99	MW-505A	<GWQS	ug/L	U
11/20/02	MW-505A	<GWQS	ug/L	U
03/25/03	MW-505A	<GWQS	ug/L	U
03/25/04	MW-505A	<GWQS	ug/L	U
03/03/05	MW-505A	<GWQS	ug/L	U
03/07/06	MW-505A	<GWQS	ug/L	U
03/22/07	MW-505A	<GWQS	ug/L	U
03/19/08	MW-505A	0.20	ug/L	U
03/10/09	MW-505A	0.45	ug/L	U
08/11/93	MW-505B	<GWQS	ug/L	U
10/19/93	MW-505B	<GWQS	ug/L	U
04/26/94	MW-505B	<GWQS	ug/L	U
11/08/94	MW-505B	<GWQS	ug/L	U
05/31/95	MW-505B	<GWQS	ug/L	U
04/02/96	MW-505B	**1.1**	ug/L	
09/23/97	MW-505B	<GWQS	ug/L	U
09/24/98	MW-505B	<GWQS	ug/L	U
11/09/99	MW-505B	<GWQS	ug/L	U
11/20/02	MW-505B	<GWQS	ug/L	U
03/25/03	MW-505B	<GWQS	ug/L	U
03/25/04	MW-505B	<GWQS	ug/L	U
03/03/05	MW-505B	<GWQS	ug/L	U
03/07/06	MW-505B	<GWQS	ug/L	U
03/08/07	MW-505B	<GWQS	ug/L	U
03/19/08	MW-505B	0.20	ug/L	U
03/10/09	MW-505B	0.45	ug/L	U

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

Q - Qualifiers
ug/L - micrograms/Liter
D - Concentration reported at dilution
GWQS = New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
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	Units	Q
08/11/93	MW-506B	**18**	ug/L	
10/20/93	MW-506B	**48**	ug/L	J
04/26/94	MW-506B	**18**	ug/L	
11/11/94	MW-506B	**19**	ug/L	
06/01/95	MW-506B	**40.4**	ug/L	
04/01/96	MW-506B	**25**	ug/L	J
09/25/97	MW-506B	**34**	ug/L	
04/30/98	MW-506B	**27**	ug/L	*
09/24/98	MW-506B	**32**	ug/L	
11/08/99	MW-506B	**50**	ug/L	
11/19/02	MW-506B	**74**	ug/L	
03/24/03	MW-506B	**24**	ug/L	
06/25/03	MW-506B	**12**	ug/L	
09/23/03	MW-506B	**14**	ug/L	
12/10/03	MW-506B	**15**	ug/L	
03/09/04	MW-506B	**16**	ug/L	
06/04/04	MW-506B	**13**	ug/L	
09/23/04	MW-506B	**12**	ug/L	
12/09/04	MW-506B	**15**	ug/L	
03/03/05	MW-506B	**16**	ug/L	
06/03/05	MW-506B	**14**	ug/L	
10/01/05	MW-506B	**36**	ug/L	
03/07/06	MW-506B	**12**	ug/L	
09/20/06	MW-506B	**13**	ug/L	
03/08/07	MW-506B	**7.6**	ug/L	
09/06/07	MW-506B	**7.4**	ug/L	
03/19/08	MW-506B	**7.1**	ug/L	
11/06/08	MW-506B	**2.7**	ug/L	
03/11/09	MW-506B	**1.9**	ug/L	

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

Q - Qualifiers
ug/L - micrograms/Liter
D - Concentration reported at dilution
GWQS = New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
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	Units	Q
10/25/93	MW-508A	**30**	ug/L	
05/02/94	MW-508A	**35**	ug/L	
11/12/94	MW-508A	**36.8**	ug/L	
06/03/95	MW-508A	**38.4**	ug/L	
04/02/96	MW-508A	**32**	ug/L	J
04/02/96	MW-508A	**38**	ug/L	J
09/26/97	MW-508A	**35**	ug/L	
05/02/98	MW-508A	**34**	ug/L	
09/25/98	MW-508A	**33**	ug/L	
11/11/99	MW-508A	**34**	ug/L	
11/21/02	MW-508A	**13**	ug/L	
03/26/03	MW-508A	**30**	ug/L	
03/25/04	MW-508A	**35**	ug/L	
03/04/05	MW-508A	**1.2**	ug/L	
03/07/06	MW-508A	0.5	ug/L	
03/08/07	MW-508A	**2.3**	ug/L	
03/19/08	MW-508A	**9.3**	ug/L	
03/11/09	MW-508A	**4.5**	ug/L	
08/13/93	MW-508B	**960**	ug/L	
10/25/93	MW-508B	**860**	ug/L	
04/29/94	MW-508B	**640**	ug/L	J*
11/11/94	MW-508B	**1120**	ug/L	
06/02/95	MW-508B	**943**	ug/L	
04/02/96	MW-508B	**1600**	ug/L	J
09/26/97	MW-508B	**320**	ug/L	
05/02/98	MW-508B	**360**	ug/L	
09/25/98	MW-508B	**210**	ug/L	
11/11/99	MW-508B	**670**	ug/L	
11/21/02	MW-508B	**120**	ug/L	
03/26/03	MW-508B	**73**	ug/L	
06/25/03	MW-508B	**58**	ug/L	
09/23/03	MW-508B	**69**	ug/L	
12/11/03	MW-508B	**40**	ug/L	
03/09/04	MW-508B	**41**	ug/L	
06/04/04	MW-508B	**32**	ug/L	
09/23/04	MW-508B	**30**	ug/L	
12/09/04	MW-508B	**31**	ug/L	
03/04/05	MW-508B	**26**	ug/L	
06/03/05	MW-508B	**40**	ug/L	
09/08/05	MW-508B	**40**	ug/L	
03/07/06	MW-508B	**31**	ug/L	
09/20/06	MW-508B	**34**	ug/L	
03/08/07	MW-508B	**27**	ug/L	
09/06/07	MW-508B	**28**	ug/L	
03/19/08	MW-508B	**21.6**	ug/L	
11/06/08	MW-508B	**27.7**	ug/L	
03/11/09	MW-508B	**16.7**	ug/L	

Sample Date	Well #	TCE Concentration	Units	Q
11/28/95	MW-532A	**30**	ug/L	
01/16/96	MW-532A	**31**	ug/L	
03/28/96	MW-532A	**18**	ug/L	
09/23/97	MW-532A	**39**	ug/L	
04/28/98	MW-532A	**34**	ug/L	
09/22/98	MW-532A	**30**	ug/L	
11/10/99	MW-532A	**32**	ug/L	
11/20/02	MW-532A	**37**	ug/L	
03/27/03	MW-532A	**26**	ug/L	
03/25/04	MW-532A	**33**	ug/L	
03/03/05	MW-532A	**37**	ug/L	
03/07/06	MW-532A	**40**	ug/L	
03/08/07	MW-532A	**29**	ug/L	
03/19/08	MW-532A	**33.0**	ug/L	
03/10/09	MW-532A	**31.3**	ug/L	
11/09/99	MW-544A	<GWQS	ug/L	U
11/18/02	MW-544A	<GWQS	ug/L	U
03/24/03	MW-544A	0.5	ug/L	
09/23/03	MW-544A	0.8	ug/L	*
03/09/04	MW-544A	<GWQS	ug/L	U
09/24/04	MW-544A	<GWQS	ug/L	U
03/03/05	MW-544A	0.4	ug/L	U
09/08/05	MW-544A	0.4	ug/L	U
03/07/06	MW-544A	0.4	ug/L	U
09/20/06	MW-544A	0.4	ug/L	
03/08/07	MW-544A	0.4	ug/L	U
09/06/07	MW-544A	0.4	ug/L	U
03/19/08	MW-544A	0.35	ug/L	J
11/06/08	MW-544A	0.45	ug/L	U
03/10/09	MW-544A	0.45	ug/L	U
11/09/99	MW-544B	0.4	ug/L	
11/18/02	MW-544B	0.5	ug/L	
03/24/03	MW-544B	0.8	ug/L	
09/23/03	MW-544B	0.6	ug/L	
03/09/04	MW-544B	0.8	ug/L	
09/24/04	MW-544B	0.6	ug/L	
03/03/05	MW-544B	0.4	ug/L	U
09/08/05	MW-544B	0.4	ug/L	U
03/07/06	MW-544B	0.6	ug/L	
09/20/06	MW-544B	0.8	ug/L	
03/08/07	MW-544B	0.7	ug/L	
09/06/07	MW-544B	0.7	ug/L	
03/19/08	MW-544B	0.79	ug/L	J
11/06/08	MW-544B	0.87	ug/L	J
03/10/09	MW-544B	0.70	ug/L	

Q - Qualifiers
ug/L - micrograms/Liter
D - Concentration reported at dilution
GWQS = New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
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	Units	Q
11/09/99	MW-544C	**4.9**	ug/L	
11/18/02	MW-544C	**1.7**	ug/L	
03/24/03	MW-544C	0.4	ug/L	
09/23/03	MW-544C	**1.3**	ug/L	
03/09/04	MW-544C	**1.8**	ug/L	
09/24/04	MW-544C	**1.3**	ug/L	
03/03/05	MW-544C	**1.8**	ug/L	
09/08/05	MW-544C	**1.2**	ug/L	
03/07/06	MW-544C	**1.5**	ug/L	
09/20/06	MW-544C	**1.1**	ug/L	
03/08/07	MW-544C	0.7	ug/L	
09/06/07	MW-544C	**1.6**	ug/L	
03/19/08	MW-544C	0.20	ug/L	U
11/06/08	MW-544C	**1.1**	ug/L	
03/10/09	MW-544C	**2.1**	ug/L	
11/09/99	MW-545A	<GWQS	ug/L	U
11/18/02	MW-545A	0.2	ug/L	
03/25/03	MW-545A	0.4	ug/L	
09/23/03	MW-545A	<GWQS	ug/L	U
03/09/04	MW-545A	<GWQS	ug/L	U
09/24/04	MW-545A	0.4	ug/L	U
03/03/05	MW-545A	0.4	ug/L	U
09/08/05	MW-545A	0.4	ug/L	U
03/07/06	MW-545A	0.4	ug/L	U
09/20/06	MW-545A	0.5	ug/L	
03/08/07	MW-545A	0.4	ug/L	U
09/06/07	MW-545A	0.4	ug/L	U
03/19/08	MW-545A	0.32	ug/L	J
11/06/08	MW-545A	0.45	ug/L	U
03/10/09	MW-545A	0.45	ug/L	U
11/09/99	MW-545B	<GWQS	ug/L	U
11/18/02	MW-545B	<GWQS	ug/L	U
03/25/03	MW-545B	<GWQS	ug/L	U
09/23/03	MW-545B	<GWQS	ug/L	U
03/09/04	MW-545B	<GWQS	ug/L	U
09/24/04	MW-545B	0.4	ug/L	U
03/03/05	MW-545B	0.4	ug/L	U
09/08/05	MW-545B	0.4	ug/L	U
09/20/06	MW-545B	0.4	ug/L	U
03/08/07	MW-545B	0.4	ug/L	U
09/06/07	MW-545B	0.4	ug/L	U
03/19/08	MW-545B	0.20	ug/L	U
11/06/08	MW-545B	0.450	ug/L	U
03/10/09	MW-545B	0.450	ug/L	U

Sample Date	Well #	TCE Concentration	Units	Q
11/09/99	MW-545C	<GWQS	ug/L	U
11/18/02	MW-545C	<GWQS	ug/L	U
03/25/03	MW-545C	<GWQS	ug/L	U
09/23/03	MW-545C	<GWQS	ug/L	U
03/09/04	MW-545C	<GWQS	ug/L	U
09/24/04	MW-545C	0.4	ug/L	U
03/03/05	MW-545C	0.4	ug/L	U
09/08/05	MW-545C	0.4	ug/L	U
09/20/06	MW-545C	0.2	ug/L	U
03/08/07	MW-545C	0.3	ug/L	U
09/06/07	MW-545C	0.4	ug/L	U
03/19/08	MW-545C	0.2	ug/L	U
11/06/08	MW-545C	0.45	ug/L	U
03/10/09	MW-545C	0.45	ug/L	U
11/09/99	MW-546A	**130**	ug/L	
11/19/02	MW-546A	**120**	ug/L	
03/25/03	MW-546A	**120**	ug/L	
06/25/03	MW-546A	**150**	ug/L	
09/24/03	MW-546A	**91**	ug/L	
12/11/03	MW-546A	**88**	ug/L	
03/09/04	MW-546A	**90**	ug/L	
06/04/04	MW-546A	**82**	ug/L	
09/24/04	MW-546A	**110**	ug/L	
12/09/04	MW-546A	**110**	ug/L	
03/04/05	MW-546A	**110**	ug/L	
06/03/05	MW-546A	**120**	ug/L	
09/08/05	MW-546A	**130**	ug/L	
09/20/06	MW-546A	**120**	ug/L	
03/08/07	MW-546A	**110**	ug/L	
09/06/07	MW-546A	**120**	ug/L	
03/19/08	MW-546A	**116**	ug/L	
11/06/08	MW-546A	**100**	ug/L	
03/10/09	MW-546A	**74.6**	ug/L	

Q - Qualifiers
ug/L - micrograms/Liter
D - Concentration reported at dilution
GWQS = New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
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	Units	Q
11/21/02	MW-549A	**760**	ug/L	
03/26/03	MW-549A	**760**	ug/L	
06/25/03	MW-549A	**1200**	ug/L	
09/24/03	MW-549A	**1100**	ug/L	
12/10/03	MW-549A	**900**	ug/L	
03/09/04	MW-549A	**1000**	ug/L	
06/04/04	MW-549A	**880**	ug/L	
09/23/04	MW-549A	**820**	ug/L	
12/09/04	MW-549A	**850**	ug/L	
03/03/05	MW-549A	**820**	ug/L	
06/03/05	MW-549A	**98**	ug/L	
10/14/05	MW-549A	**1100**	ug/L	
09/20/06	MW-549A	**940**	ug/L	
03/08/07	MW-549A	**870**	ug/L	
09/06/07	MW-549A	**850**	ug/L	
03/19/08	MW-549A	**801**	ug/L	
11/06/08	MW-549A	**837**	ug/L	
03/10/09	MW-549A	**714**	ug/L	
11/21/02	MW-549B	**1400**	ug/L	
03/26/03	MW-549B	**1900**	ug/L	
06/25/03	MW-549B	**2800**	ug/L	
09/24/03	MW-549B	**2300**	ug/L	
12/10/03	MW-549B	**1800**	ug/L	
03/09/04	MW-549B	**1200**	ug/L	
06/04/04	MW-549B	**1400**	ug/L	
09/23/04	MW-549B	**1500**	ug/L	
12/09/04	MW-549B	**1200**	ug/L	
03/03/05	MW-549B	**1200**	ug/L	
06/03/05	MW-549B	**650**	ug/L	
10/14/05	MW-549B	**1300**	ug/L	
09/06/07	MW-549B	**1000**	ug/L	
03/19/08	MW-549B	**867**	ug/L	
11/06/08	MW-549B	**767**	ug/L	
03/10/09	MW-549B	**724**	ug/L	

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

Q - Qualifiers
ug/L - micrograms/Liter
D - Concentration reported at dilution
GWQS = New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
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	Units	Q
11/10/94	P-522A	**2.2**	ug/L	
12/14/94	P-522A	**4.8**	ug/L	
03/31/96	P-522A	0.4	ug/L	J
09/27/97	P-522A	0.8	ug/L	J
05/01/98	P-522A	1.8	ug/L	
09/26/98	P-522A	**1.1**	ug/L	
11/10/99	P-522A	0.9	ug/L	
11/19/02	P-522A	**1.6**	ug/L	
03/25/03	P-522A	**14**	ug/L	
09/23/03	P-522A	**3.8**	ug/L	
03/09/04	P-522A	**3.0**	ug/L	
09/24/04	P-522A	**3.6**	ug/L	
03/03/05	P-522A	**3.3**	ug/L	
09/08/05	P-522A	**3.0**	ug/L	
03/08/07	P-522A	**2.2**	ug/L	
09/06/07	P-522A	**3.1**	ug/L	
03/19/08	P-522A	**2.4**	ug/L	
11/06/08	P-522A	**3.0**	ug/L	
03/10/09	P-522A	**2.2**	ug/L	
12/14/94	P-522B	**157**	ug/L	
03/31/96	P-522B	**230**	ug/L	
09/27/97	P-522B	**190**	ug/L	*
05/01/98	P-522B	**140**	ug/L	
09/27/98	P-522B	**180**	ug/L	
11/10/99	P-522B	**200**	ug/L	
11/19/02	P-522B	**120**	ug/L	
03/25/03	P-522B	**160**	ug/L	
09/23/03	P-522B	**220**	ug/L	
03/09/04	P-522B	**220**	ug/L	
09/24/04	P-522B	**200**	ug/L	
03/03/05	P-522B	**190**	ug/L	
09/08/05	P-522B	**210**	ug/L	
09/20/06	P-522B	**190**	ug/L	
03/08/07	P-522B	**34**	ug/L	
09/06/07	P-522B	**12**	ug/L	
03/19/08	P-522B	**9.0**	ug/L	
11/06/08	P-522B	**6.0**	ug/L	
03/10/09	P-522B	**5.3**	ug/L	

Sample Date	Well #	TCE Concentration	Units	Q
11/10/94	P-522C	**18.6**	ug/L	
12/13/94	P-522C	**20.9**	ug/L	
03/31/96	P-522C	**50**	ug/L	
09/27/97	P-522C	**6.1**	ug/L	
05/01/98	P-522C	**67**	ug/L	
09/27/98	P-522C	**16**	ug/L	
11/10/99	P-522C	**12**	ug/L	
11/19/02	P-522C	**17**	ug/L	
03/25/03	P-522C	**22**	ug/L	
09/23/03	P-522C	**16**	ug/L	
03/09/04	P-522C	0.2	ug/L	U
09/24/04	P-522C	0.4	ug/L	U
03/03/05	P-522C	**25**	ug/L	
09/08/05	P-522C	0.4	ug/L	U
09/20/06	P-522C	0.5	ug/L	
03/08/07	P-522C	0.4	ug/L	U
09/06/07	P-522C	0.4	ug/L	U
03/19/08	P-522C	0.20	ug/L	U
11/06/08	P-522C	0.45	ug/L	U
03/10/09	P-522C	0.45	ug/L	U

Q - Qualifiers
ug/L - micrograms/Liter
D - Concentration reported at dilution
GWQS = New Jersey Groundwater Quality Standard
Bold- Concentration exceeds GWQS for TCE of 1 micrograms/Liter
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 6
Ground Water Sampling Measurements and Calculations
Former LEC Site - Watchung, New Jersey
(Page 4 of 4)

SAMPLING DATE: 06/05/08 **Weather:** Overcast, 55°F **Site Name/Location:** Former LEC Site

PRE-PURGE INFORMATION									
Well No. or Name	Time	Total Depth (ft)	Depth To Water (ft)	Water Column (ft)	Multi-plier	Est. Purge Vol.(gal)	PID (ppm)	Depth to Prod. (ft)	Prod. Thick. (ft)
MW-546B	09:25	100.0	13.51	86.49	0.49	42.4	NM	ND	ND
MW-546C	09:30	32.0	10.50	21.50	0.49	10.5	NM	ND	ND
MW-531B	11:05	48.1	9.06	39.02	0.49	19.1	NM	ND	ND
MW-531A	11:37	144.0	11.78	132.22	0.49	64.8	NM	ND	ND

PRE-PURGE					
Temp (°C)	pH (su)	K_{25} (uS/cm)	Salinity (ppt)	ORP (mV)	D.O. (ppm)
15.2	6.70	493	0	140	4.3
16.0	6.22	455	0	130	4.2
15.0	7.07	340	0	140	0.6
13.7	7.27	340	0	129	3.5

PURGING INFORMATION								
Well No. or Name	Pump Intake Depth (ft)	Time Pump On	Time Pump Off	Flow Rate per Volume (gpm) 1st & 2nd	Flow Rate per Volume (gpm) 3rd	Total Purge Vol. (gal)	Pump Type	Water Conditions (During Purging)
MW-546B	70	09:48	10:31	1	1	43	Monsoon	Clear
MW-546C	20	09:36	09:47	1	1	11	Monsoon	Silty Orange
MW-531B	35	11:15	11:35	1	1	20	Monsoon	Clear
MW-531A	100	11:38	12:30	1.25	1.25	65	Monsoon	Clear

POST-PURGE					
Temp (°C)	pH (su)	K_{25} (uS/cm)	Salinity (ppt)	ORP (mV)	D.O. (ppm)
15.6	7.13	456	0	126	5.1
15.5	5.83	423	0	165	4.2
13.6	6.47	326	0	143	0.0
16.1	7.75	342	0	104	3.0

SAMPLING INFORMATION					
Well No. or Name	80% Recov. (ft)	Depth To Water (ft)	Sample Time	Sample Method*	Comments/Water Condition at Time of Sample
MW-546B	30.81	13.25	10:35	Bailer	Sl. Silty Tan
MW-546C	14.80	10.68	10:32	Bailer	Silty Orange
MW-531B	16.86	9.05	11:38	Bailer	Clear
MW-531A	38.22	27.30	12:35	Bailer	Clear

POST-SAMPLE					
Temp (°C)	pH (su)	K_{25} (uS/cm)	Salinity (ppt)	ORP (mV)	D.O. (ppm)
17.2	7.43	496	0	106	4.6
16.4	6.20	625	0	140	3.5
15.2	7.22	281	0	126	8.0
15.1	7.85	336	0	112	7.7

Total depth includes stick-up height, if applicable.
Multiplier includes a factor of 3 to calculate the required volume of ground water to be removed from the well.
80% recovery is calculated by subtracting 80% of the water column height from the total depth [Total Depth - (0.80 x Water Column)].
PID lamp is 10.6 eV, unless otherwise noted.
Analytical Methods (EPA): Temp (170.1); pH (150.1); Cond (120.1); DO (360.1)
K_{25} = conductivity corrected to 25°C.
*Sample method: bailer, submersible pump, peristaltic, etc.

NJDEP Certification No. 07734

Reviewed & Approved by: _____
Laboratory Manager or Designated Supervisor

TRC Meter Numbers			Rental Meter	
pH: -	Cond: -	D.O.: -	Name:	Horiba U-22
ORP: -			Serial No.:	7062006

Table 7
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)	2008 TCE Concentration (µg/L)	Approximate Percent Reduction
MW-501B	18	8 to 18	113 to 103	25	44.1	0%
MW-502B	18	8 to 18	96 to 86	1,500	25.9	98%
MW-503B	23.7	8.7 to 23.7	102 to 87	44	45.9	0%
MW-504B	19.5	6.5 to 19.5	106 to 93	ND	ND	N/A
MW-505B	19.7	9.7 to 19.7	94 to 84	ND	ND	N/A
MW-506B	24.6	14.6 to 24.6	107 to 97	50	7.1	86%
MW-507B	59.7	49.7 to 59.7	127 to 117	93	14.7	84%
MW-508B	67.7	57.7 to 67.7	129 to 119	670	21.6	97%
MW-531B	48	38 to 48	100 to 90	ND	ND	N/A
MW-532B	102.7	93 to 103	92 to 82	<GWQS	<GWQS	N/A
MW-544C	23	3 to 23	83 to 63	4.9	ND	96%
MW-545C	35	15 to 35	71 to 51	ND	ND	N/A
MW-546C	32	12 to 32	96 to 76	3.7	ND	95%
MW-547C	22	2 to 22	96 to 76	110	<GWQS	100%
MW-549B	110	90 to 110	90 to 70	2,800*	867	69%
MW-550C	50	30 to 50	102 to 82	180*	123	32%
PZ-521C	15.2	5.2 to 15.2	95 to 85	130	<GWQS	100%
PZ-522C	17.7	7.7 to 17.7	86 to 76	12	ND	100%
PZ-524C	14.7	4.7 to 14.7	63 to 53	6.6	<GWQS	91%

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)	2008 TCE Concentration (µg/L)	Approximate Percent Reduction
MW-501A	74.5	64.5 to 74.5	56 to 46	2.6	2.5	4%
MW-502A	74.7	64.7 to 74.7	39 to 29	5.9	<GWQS	100%
MW-503A	71.5	61.5 to 71.5	49 to 39	2.0	ND	100%
MW-504A	76	66 to 76	46 to 36	ND	<GWQS	N/A
MW-505A	75	65 to 75	39 to 29	ND	ND	N/A
MW-506A	99	89 to 99	34 to 24	1,700	139	92%
MW-507A	152	142 to 152	35 to 25	970	174	82%
MW-531A	142	132 to 142	6 to -4	2.1	ND	90%
MW-544B	100	80 to 100	6 to -14	<GWQS	<GWQS	N/A
MW-545B	93	73 to 93	13 to -7	ND	ND	N/A
MW-546B	100	80 to 100	27 to 7	93	1.2	99%
MW-547B	100	80 to 100	18 to -2	22	2.0	91%
MW-549A	210	190 to 210	-11 to -31	1200*	801	33%
MW-550B	100	80 to 100	53 to 33	870**	646	26%
PZ-521B	102.6	92.6 to 102.6	7 to -3	82	88.1	0%
PZ-522B	101	91 to 101	3 to -7	200	9.0	96%
PZ-523B	102	92 to 102	2 to -8	32	2.2	93%
PZ-524B	97.7	87.7 to 97.7	-20 to -30	4.9	2.3	53%

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)	2008 TCE Concentration (µg/L)	Approximate Percent Reduction
MW-508A	262.7	252.7 to 262.7	-66 to -76	34	9.3	73%
MW-532A	263	253 to 263	-66 to -76	32	33	0%
MW-544A	200	180 to 200	-94 to -114	ND	<GWQS	N/A
MW-545A	200	180 to 200	-94 to -114	ND	<GWQS	N/A
MW-546A	200	180 to 200	-73 to -93	130	116	11%
MW-547A	200	180 to 200	-82 to -102	3.1	ND	94%
PZ-522A	197.7	187.7 to 197.7	-94 to -104	<GWQS	2.4	0%
PZ-524A	195.7	185.7 to 195.7	-118 to -128	<GWQS	<GWQS	N/A

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.
2008 Data from samples collected in March and June 2008.

* = June 2003 Data
** = March 2003 Data

TABLE 8
SURFACE WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 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**	858910	858909	858908	858907	J86202-1	J86202-2	J86202-3	J86202-4
Sampling Date	**Quality**	09/05/07	09/05/07	09/05/07	09/05/07	03/18/08	03/18/08	03/18/08	03/18/08
Matrix	**Criteria**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**(FWQC)**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.2 U	0.2 U	0.2 U	0.2 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	*0.55*	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.14 U	0.14 U	0.14 U
Bromomethane	*– –*	0.4 U	0.4 U	0.4 U	0.4 U	0.27 U	0.27 U	0.27 U	0.27 U
Bromoform	*4.3*	0.2 U	0.2 U	0.2 U	0.2 U	0.75 U	0.75 U	0.75 U	0.75 U
Carbon Tetrachloride	*0.33*	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorobenzene	*210*	0.2 U	0.2 U	0.2 U	0.2 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroethane	*– –*	0.4 U	0.4 U	0.4 U	0.4 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Chloroethyl Vinyl Ether	*– –*	0.2 U	0.2 U	0.2 U	0.2 U	0.73 U	0.73 U	0.73 U	0.73 U
Chloroform	*68*	0.2 U	0.3	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U
Chloromethane	*– –*	0.4 U	0.4 U	0.4 U	0.4 U	0.42 U	0.42 U	0.42 U	0.42 U
Dibromochloromethane	*0.40*	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.18 U
1,1-Dichloroethane	*– –*	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.7 U	0.7 U	0.7 U
1,2-Dichloroethane	*0.29*	0.3 U	0.3 U	0.3 U	0.3 U	0.48 U	0.48 U	0.48 U	0.48 U
1,1-Dichloroethene	*4.7*	0.5 U	0.5 U	0.5 U	0.5 U	0.58 U	0.58 U	0.58 U	0.58 U
cis-1,2-Dichloroethene	*– –*	0.3 U	1.4	0.6	0.3 U	0.56 U	0.56 U	0.56 U	0.56 U
trans-1,2-Dichloroethene	*590*	0.4 U	0.4 U	0.4 U	0.4 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichloropropane	*0.50*	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	0.4 U	0.4 U	0.4 U
cis-1,3-Dichloropropene	*0.34*	0.1 U	0.1 U	0.1 U	0.1 U	0.22 U	0.22 U	0.22 U	0.22 U
trans-1,3-Dichloropropene	*0.34*	0.2 U	0.2 U	0.2 U	0.2 U	0.16 U	0.16 U	0.16 U	0.16 U
Ethylbenzene	*530*	0.4 U	0.4 U	0.4 U	0.4 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	*– –*	0.4 U	0.4 U	0.4 U	0.4 U	0.19 U	0.19 U	0.19 U	0.19 U
Tetrachloroethene	*0.34*	0.4 U	0.4 U	0.4 U	0.4 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	*4.7*	0.4 U	0.4 U	0.4 U	0.4 U	0.26 U	0.26 U	0.26 U	0.26 U
Toluene	*1300*	0.3 U	0.3 U	0.3 U	0.3 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1,1-Trichloroethane	*120*	0.4 U	0.4 U	0.4 U	0.4 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	*13*	0.2 U	0.2 U	0.2 U	0.2 U	0.61 U	0.61 U	0.61 U	0.61 U
Trichloroethene	*1.0*	0.4 U	**1.1**	0.4	0.4 U	0.42 J	0.77 J	0.51 J	0.28 J
Trichlorofluoromethane	*– –*	0.4 U	0.4 U	0.4 U	0.4 U	1.2 U	1.2 U	1.2 U	1.2 U
Vinyl Chloride	*0.082*	0.2 U	0.2 U	0.2 U	0.2 U	0.35 U	0.35 U	0.35 U	0.35 U
Xylene (Total)	*– –*	0.4 U	0.4 U	0.4 U	0.4 U	0.25 U	0.25 U	0.25 U	0.25 U
Total Confident Conc. VOAs (s)		ND	2.8	1.0	ND	0.42	0.77	0.51	0.28
Total Estimated Conc. VOA TICs (s)		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
SURFACE WATER ANALYTICAL RESULTS
SEPTEMBER 2007 THROUGH MARCH 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**	JA4976-1	JA4976-2	JA4976-3	JA4976-4	JA13923-1	JA13923-2	JA13923-3	JA13923-4
Sampling Date	**Quality**	11/06/08	11/06/08	11/06/08	11/06/08	03/10/09	03/10/09	03/10/09	03/10/09
Matrix	**Criteria**	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	**(FWQC)**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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*	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Bromodichloromethane	*0.55*	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Bromomethane	– –	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bromoform	*4.3*	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon Tetrachloride	*0.33*	0.10 U	0.10 U	0.10 U	0.10 U	0.099 U	0.099 U	0.099 U	0.099 U
Chlorobenzene	*210*	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroethane	– –	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
2-Chloroethyl Vinyl Ether	– –	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
Chloroform	*68*	0.09 U	0.26 J	0.09 U	0.09 U	0.094 U	0.094 U	0.094 U	0.094 U
Chloromethane	– –	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	*0.40*	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1-Dichloroethane	– –	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
1,2-Dichloroethane	*0.29*	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-Dichloroethene	*4.7*	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
cis-1,2-Dichloroethene	– –	0.15 U	0.66 J	0.34 J	0.21 J	0.34 J	0.15 U	0.15 U	0.15 U
trans-1,2-Dichloroethene	*590*	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2-Dichloropropane	*0.50*	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
cis-1,3-Dichloropropene	*0.34*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
trans-1,3-Dichloropropene	*0.34*	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Ethylbenzene	*530*	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methylene Chloride	– –	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Tetrachloroethene	*0.34*	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
1,1,2,2-Tetrachloroethane	*4.7*	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Toluene	*1300*	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1,1-Trichloroethane	*120*	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,1,2-Trichloroethane	*13*	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Trichloroethene	*1.0*	0.45 U	1.0	0.59 J	0.45 U	**1.5**	0.45 U	0.73 J	0.49 J
Trichlorofluoromethane	– –	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Vinyl Chloride	*0.082*	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Xylene (Total)	– –	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Total Confident Conc. VOAs (s)		ND	1.9	0.93	0.21	1.8	ND	0.73 J	0.49 J
Total Estimated Conc. VOA TICs (s)		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 9
HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS
FORMER LEC SITE - WATCHUNG, NEW JERSEY

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

ug/L	micrograms/Liter
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
HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS
FORMER LEC SITE - WATCHUNG, NEW JERSEY

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

ug/L	micrograms/Liter
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
HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS
FORMER LEC SITE - WATCHUNG, NEW JERSEY

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

ug/L	micrograms/Liter
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
HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS
FORMER LEC SITE - WATCHUNG, NEW JERSEY

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

ug/L	micrograms/Liter
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
HISTORICAL TCE CONCENTRATIONS IN STREAM LOCATIONS
FORMER LEC SITE - WATCHUNG, NEW JERSEY

Location	Sample Date	Analyte	Conc	Result Unit	Qualifiers
SW-12	Dec-02	Trichloroethene	7.8	ug/L	
SW-12	Mar-03	Trichloroethene	5	ug/L	
SW-12	Mar-03	Trichloroethene	3	ug/L	
SW-12	Jul-03	Trichloroethene	1.7	ug/L	
SW-12	Aug-03	Trichloroethene	2.2	ug/L	
SW-12	Sep-03	Trichloroethene	3	ug/L	
SW-12	Oct-03	Trichloroethene	3.4	ug/L	U
SW-12	Nov-03	Trichloroethene	3.2	ug/L	
SW-12	Dec-03	Trichloroethene	1.1	ug/L	
SW-12	Jan-04	Trichloroethene	2.1	ug/L	
SW-12	Feb-04	Trichloroethene	1.4	ug/L	
SW-12	Mar-04	Trichloroethene	0.2	ug/L	U
SW-12	Apr-04	Trichloroethene	2.3	ug/L	
SW-12	May-04	Trichloroethene	2.4	ug/L	
SW-12	Jun-04	Trichloroethene	1.3	ug/L	
SW-12	Jul-04	Trichloroethene	2.5	ug/L	
SW-12	Aug-04	Trichloroethene	2.4	ug/L	
SW-12	Sep-04	Trichloroethene	2.1	ug/L	
SW-12	Oct-04	Trichloroethene	2.2	ug/L	
SW-12	Nov-04	Trichloroethene	2.4	ug/L	
SW-12	Dec-04	Trichloroethene	1.1	ug/L	
SW-12	Feb-05	Trichloroethene	2.3	ug/L	
SW-12	Mar-05	Trichloroethene	1.0	ug/L	
SW-12	Apr-05	Trichloroethene	1.2	ug/L	
SW-12	May-05	Trichloroethene	0.4	ug/L	U
SW-12	Jun-05	Trichloroethene	2.9	ug/L	
SW-12	Jul-05	Trichloroethene	3.3	ug/L	
SW-12	Aug-05	Trichloroethene	3.0	ug/L	
SW-12	Sep-05	Trichloroethene	3.6	ug/L	
SW-12	Oct-05	Trichloroethene	0.4	ug/L	U
SW-12	Nov-05	Trichloroethene	0.4	ug/L	U

ug/L	micrograms/Liter
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 10
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

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 11
Summary of Findings - Investigaiton of Status of Missing Monitoring Wells
Former Lockheed Electronics Corporation Facility - Watchung, New Jersey

Well Designation	Permit Number	Date Installed	Measuring Point Elevation (ft.msl)	Type/Diameter	Depth (feet)	Hydrogeologic Zone Monitored	Findings
MW-501A	25-43363	7/7/1993	120.90	PVC/2	74.5	Intermediate	Well was found.
MW-501B	25-43364	7/6/1993	121.09	PVC/2	18	Shallow	Well was found.
MW-503A	25-43367	6/30/1993	110.26	PVC/2	71.5	Intermediate	Well was found.
MW-503B	25-43368	6/22/1993	110.58	PVC/2	23.7	Shallow	Well was found.
MW-504B	25-43520	7/15/1993	112.09	PVC/2	19.5	Shallow	Well was found.
MW-509A	25-43825	9/28/1993	231.30	PVC/4	425	Deep	Well was not found. Grade at well location was cut by tens of feet during site redevelopement. It appears that well was destroyed during site redevelopment.
MW-509B	25-43826	9/23/1993	230.77	PVC/2	86	Shallow	Well was not found. Grade at well location was cut by tens of feet during site redevelopement. It appears that well was destroyed during site redevelopment.
MW-510A	25-43824	9/14/1993	182.22	PVC/4	203	Intermediate	Well was not found. Based on coordinates, well location may be within footprint of Home Depot building. It appears that well was destroyed during site redevelopment.
MW-510B	25-43823	9/8/1993	182.17	PVC/2	72	Shallow	Well was not found. Based on coordinates, well location may be within footprint of Home Depot building. It appears that well was destroyed during site redevelopment.
MW-542A	25-54834	8/23/1999	99.65	PVC/2	200	Deep	Well was not found. Well location is within footprint of school building. It iappears that well was destroyed during site redevelopment.
MW-542B	25-54835	8/20/1999	99.71	PVC/2	100	Intermediate	Well was not found. Well location is within footprint of school building. It iappears that well was destroyed during site redevelopment.
MW-542C	25-54836	8/16/1999	99.57	PVC/2	33	Shallow	Well was not found. Well location is within footprint of school building. It iappears that well was destroyed during site redevelopment.
MW-549C	25-60739	10/31/2002	179.41	PVC/2	70	Shallow	Well was not found. Well locaiton is within 6-foot high earth berm near Wal-Mart building. It is not known whether the well is intact or destroyed.
PZ-523A	25-45021	6/28/1994	94.13	PVC/2	197.7	Deep	Well was not found. Well was reported missing during constrction of adjacent bridge crossing Stony Brook. It appears that well was destroyed during bridge construction.
PZ-523C	25-45023	6/29/1994	93.91	PVC/2	13.5	Shallow	Well was not found. Well was reported missing during constrction of adjacent bridge crossing Stony Brook. It appears that well was destroyed during bridge construction.

Note: Each monitoring well location was identified in the field by Casey and Keller (Millburn, NJ) (licensed land surveyor) based on the well's previously-surveyed coordinates. Following the determineation of the locaiton of each well by Casey and Keller, each locaiton was searched using electromagnetic and ground penetrating radar geophysical survey techniques by National Subsurface Investigation Services (Somerset, NJ) to determine whether the monitoring well was present.

ft.msl = Feet Above Mean Sea Level

Table 12
Summary of Monitoring Well Network Recommendations
Former Lockheed Electronics Corporation Facility - Watchung, New Jersey

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

Well Designation	Permit Number	Type/ Diameter	Depth (feet)	TCE Exceeded GWQS Prior to GWES	TCE Exceeded GWQS 2007-2008	Assists in Avaluating GWES Performance	Required to Define Plume or Ground Water Flow	Recommendations
MW-501B	25-43364	PVC/2	18	X	X			Abandonment by Licensed Driller
MW-502B	25-43366	PVC/2	18	X	X	X		Continued Monitoring Per Schedule
MW-503B	25-43368	PVC/2	23.7	X	X			Abandonment by Licensed Driller
MW-504B	25-43520	PVC/2	19.5				X	Continued Semi-Annual Ground Water Gauging
MW-505B	25-43522	PVC/2	19.7				X	Continued Monitoring Per Schedule
MW-506B	25-43517	PVC/2	24.6	X	X	X	X	Continued Monitoring Per Schedule
MW-507B	25-43516	PVC/2	59.7	X	X	X	X	Continued Monitoring Per Schedule
MW-508B	25-43524	PVC/2	67.7	X	X	X	X	Continued Monitoring Per Schedule
MW-509B *	25-43826	PVC/2	86		N/A	N/A	N/A	Obtain variance for abandonment from BWA
MW-510B *	25-43823	PVC/2	72		N/A	N/A	N/A	Obtain variance for abandonment from BWA
MW-531B	N/A	PVC/2	48					Abandonment by Licensed Driller
MW-532B	N/A	PVC/2	102.7					Continued Semi-Annual Ground Water Gauging
MW-542C *	25-54836	PVC/2	33		N/A	N/A	N/A	Obtain variance for abandonment from BWA
MW-544C	25-54779	PVC/2	23	X				Continued Monitoring Per Schedule
MW-545C	25-54786	PVC/2	35				X	Continued Monitoring Per Schedule
MW-546C	25-55005	PVC/2	32	X		X	X	Continued Semi-Annual Ground Water Gauging
MW-547C	25-54780	PVC/2	22	X		X	X	Continued Semi-Annual Ground Water Gauging
MW-549B	25-60735	PVC/2	110	X	X	X		Continued Monitoring Per Schedule
MW-549C *	25-60739	PVC/2	70	X	N/A	N/A		See Notes
MW-550C	25-60738	PVC/2	50	X	X	X	X	Continued Monitoring Per Schedule
PZ-521C	25-45029	PVC/2	15.2	X		X	X	Continued Semi-Annual Ground Water Gauging
PZ-522C	25-45020	PVC/2	17.7	X			X	Continued Monitoring Per Schedule
PZ-523C *	25-45023	PVC/2	13.5	X	N/A	N/A	N/A	Obtain variance for abandonment from BWA
PZ-524C	25-45026	PVC/2	14.7	X			X	Continued Semi-Annual Ground Water Gauging

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

Well Designation	Permit Number	Type/ Diameter	Depth (feet)	TCE Exceeded GWQS Prior to GWES	TCE Exceeded GWQS 2007-2008	Assists in Avaluating GWES Performance	Required to Define Plume or Ground Water Flow	Recommendations
MW-501A	25-43363	PVC/2	74.5	X	X			Abandonment by Licensed Driller
MW-502A	25-43365	PVC/2	74.7	X		X	X	Continued Monitoring Per Schedule
MW-503A	25-43367	PVC/2	71.5	X				Abandonment by Licensed Driller
MW-504A	25-43521	PVC/2	76				X	Continued Semi-Annual Ground Water Gauging
MW-505A	25-43523	PVC/2	75				X	Continued Monitoring Per Schedule
MW-506A	25-43518	PVC/2	99	X	X	X	X	Continued Monitoring Per Schedule
MW-507A	25-43821	PVC/4	152	X	X	X	X	Continued Monitoring Per Schedule
MW-510A *	25-43824	PVC/4	203		N/A	N/A	N/A	Obtain variance for abandonment from BWA
MW-531A	N/A	PVC/2	142	X				Abandonment by Licensed Driller
MW-542B *	25-54835	PVC/2	100	X	N/A	N/A	N/A	Obtain variance for abandonment from BWA
MW-544B	25-54778	PVC/2	100					Continued Monitoring Per Schedule
MW-545B	25-54785	PVC/2	93				X	Continued Monitoring Per Schedule
MW-546B	25-55004	PVC/2	100	X	X	X	X	Continued Semi-Annual Ground Water Gauging
MW-547B	25-54781	PVC/2	100	X	X	X	X	Continued Semi-Annual Ground Water Gauging
MW-549A	25-60736	PVC/2	210	X	X	X	X	Continued Monitoring Per Schedule
MW-550B	25-60737	PVC/2	100	X	X	X	X	Continued Monitoring Per Schedule
PZ-521B	25-45028	PVC/2	102.6	X	X	X	X	Continued Semi-Annual Ground Water Gauging
PZ-522B	25-45019	PVC/2	101	X	X	X	X	Continued Monitoring Per Schedule
PZ-523B	25-45022	PVC/2	102	X	X			Abandonment by Licensed Driller
PZ-524B	25-45025	PVC/2	97.7	X	X		X	Continued Semi-Annual Ground Water Gauging

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

Well Designation	Permit Number	Type/ Diameter	Depth (feet)	TCE Exceeded GWQS Prior to GWES	TCE Exceeded GWQS 2007-2008	Assists in Avaluating GWES Performance	Required to Define Plume or Ground Water Flow	Recommendations
MW-508A	25-43525	PVC/4	262.7	X	X	X	X	Continued Monitoring Per Schedule
MW-509A *	25-43825	PVC/4	425	X	N/A	N/A		Obtain variance for abandonment from BWA
MW-532A	N/A	PVC/2	263	X	X			Continued Monitoring Per Schedule
MW-542A *	25-54834	PVC/2	200		N/A	N/A		Obtain variance for abandonment from BWA
MW-544A	25-54777	PVC/2	200					Continued Monitoring Per Schedule
MW-545A	25-54784	PVC/2	200			X	X	Continued Monitoring Per Schedule
MW-546A	25-55003	PVC/2	200	X	X	X	X	Continued Monitoring Per Schedule
MW-547A	25-54782	PVC/2	200	X		X	X	Continued Semi-Annual Ground Water Gauging
PZ-522A	25-45018	PVC/2	197.7		X	X	X	Continued Monitoring Per Schedule
PZ-523A *	25-45021	PVC/2	197.7		N/A	N/A		Obtain variance for abandonment from BWA
PZ-524A	25-45024	PVC/2	195.7			X	X	Continued Semi-Annual Ground Water Gauging

Note: Well MW-549C is in thhe same hydrogeologic zone as well MW-549B, and has historically displayed lower concentrations than MW-549B. Its location is under a 6-foot high earth berm that was constructed during Site re-development. TRC proposes to ener into access negotiations with the property owner to test pit at the assumed location of MW-549C, and to request a variance for well abandonment brom BWA if access is unattainable, or if the well is not found following the securing of access and test pitting activities.

N/A = Not Available

* = Well Not Found During 2008 Missing Well Investigation Activities

TABLE 13
IMPLEMENTATION SCHEDULE
FORMER LEC SITE - WATCHUNG, NEW JERSEY

TASKS	2009						20010				
	July	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											

APPENDIX A

NJDEP Contour Map Reporting Forms

CONTOUR MAP REPORTING FORM –
Shallow Zone
September 5, 2007

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 5, 2007

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 5, 2007

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 18, 2008

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
March 18, 2008

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
March 18, 2008

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
June 2, 2008

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 for the wells used in the shallow 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 –
Intermediate Zone
June 2, 2008

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
June 2, 2008

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
November 6, 2008

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 for the wells used in the shallow 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 –
Intermediate Zone
November 6, 2008

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
November 6, 2008

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 10, 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 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 10, 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 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 10, 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 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.

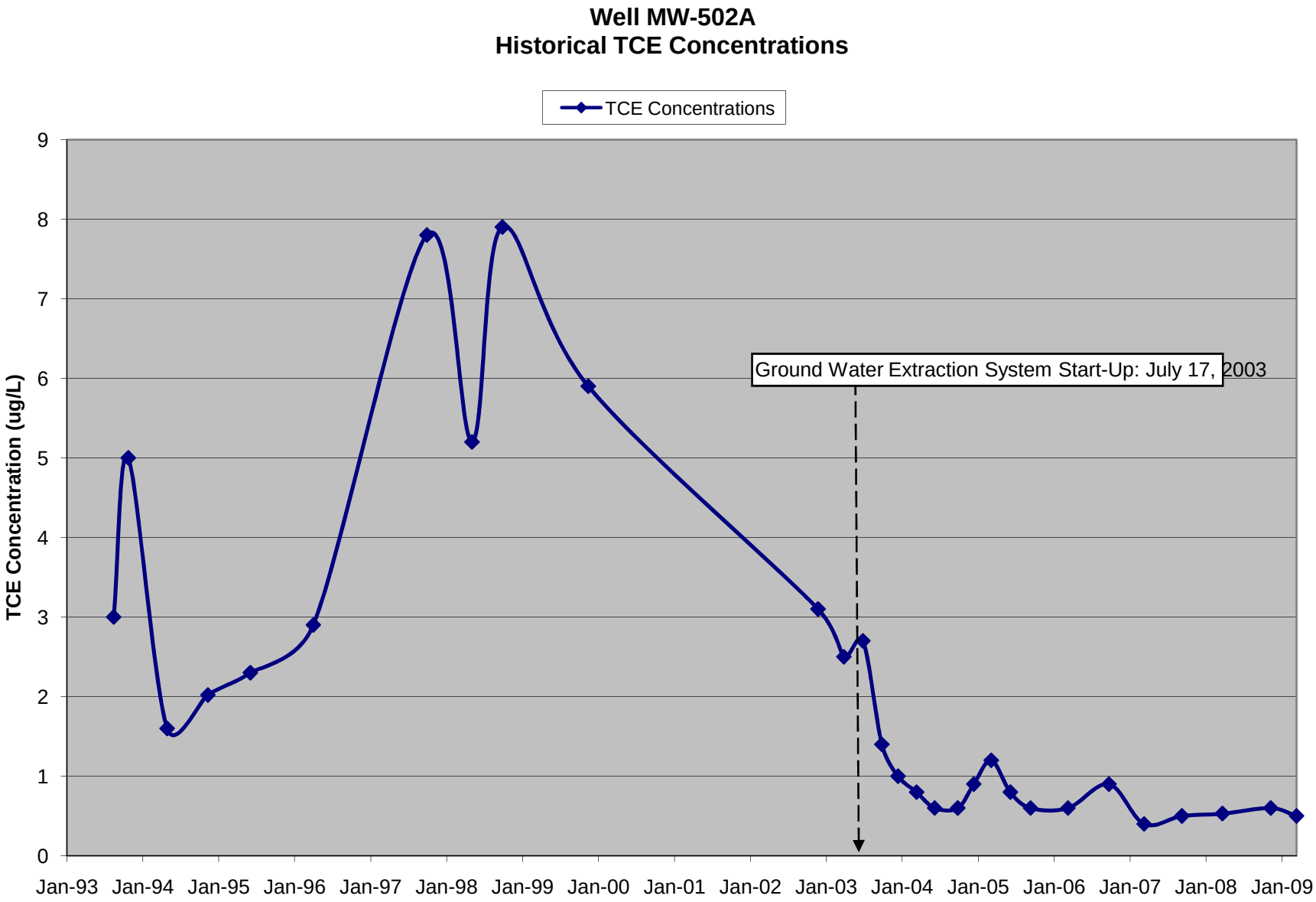
6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes_____No___X Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

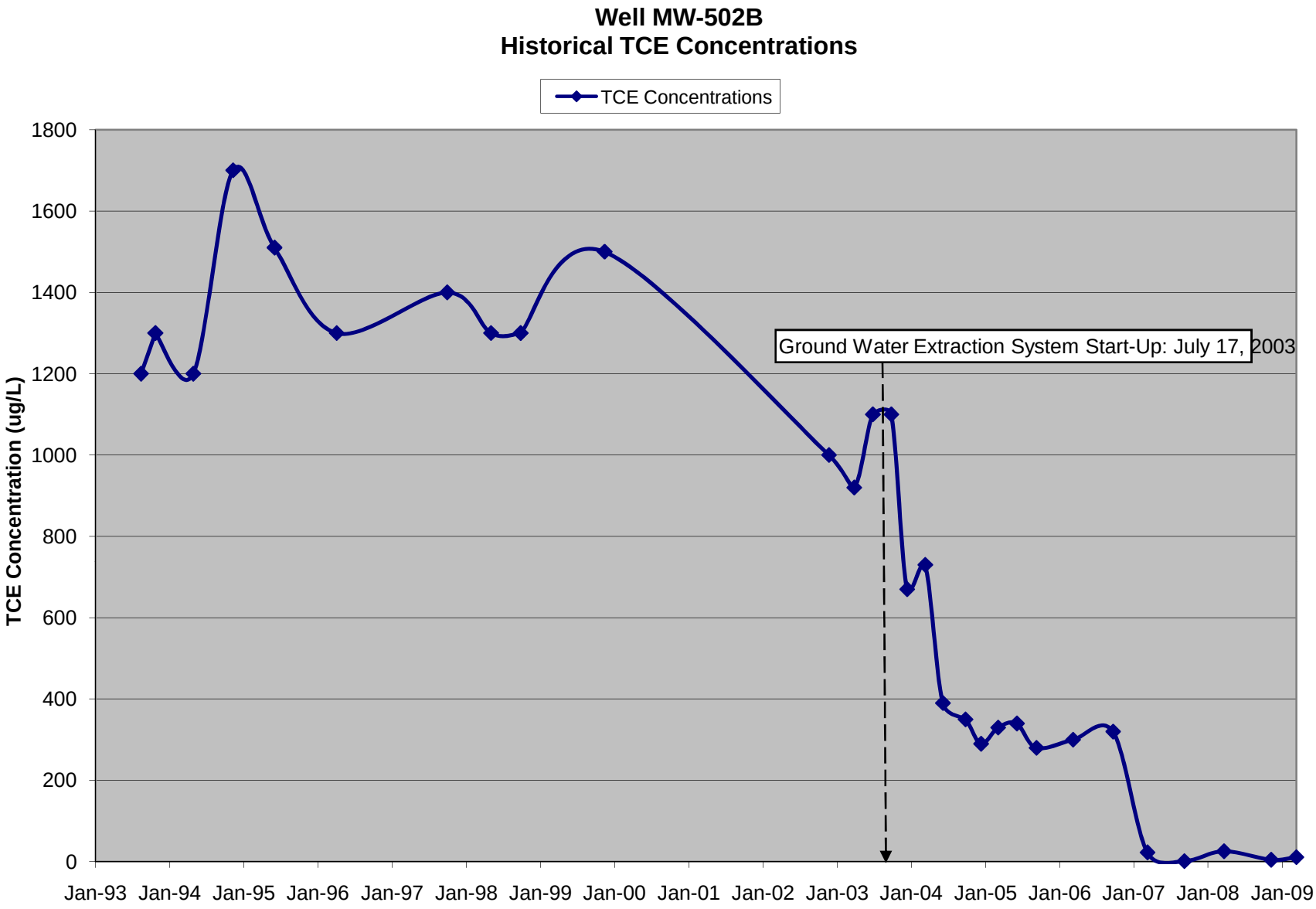
7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No___. If no, justify inclusion of those wells. See Table 3 for the wells used in the deep zone contour map

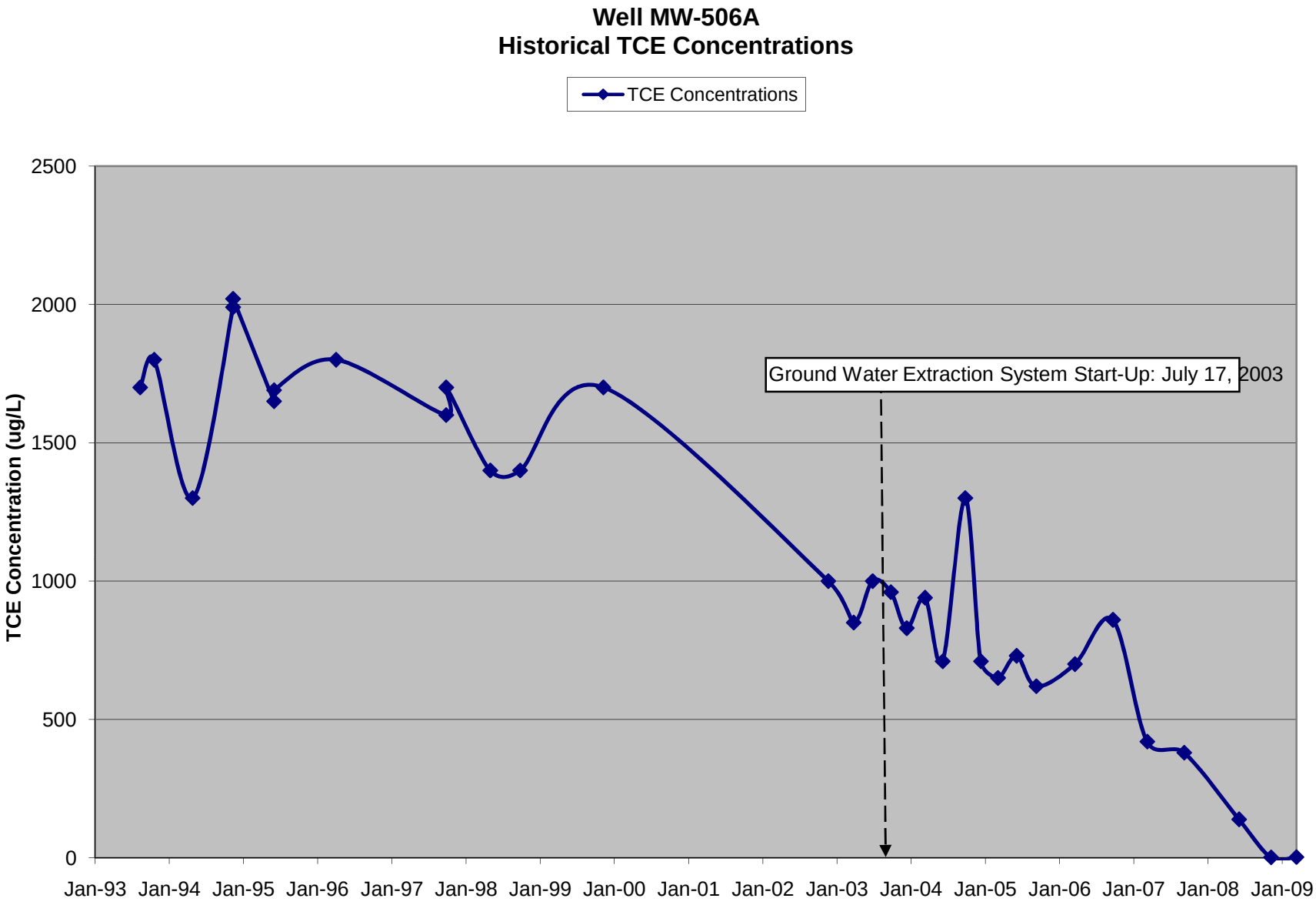
8. Were the ground water contours computer generated __, computer aided __, or hand-drawn X ? If computer aided or generated, identify the interpolation method(s) used.

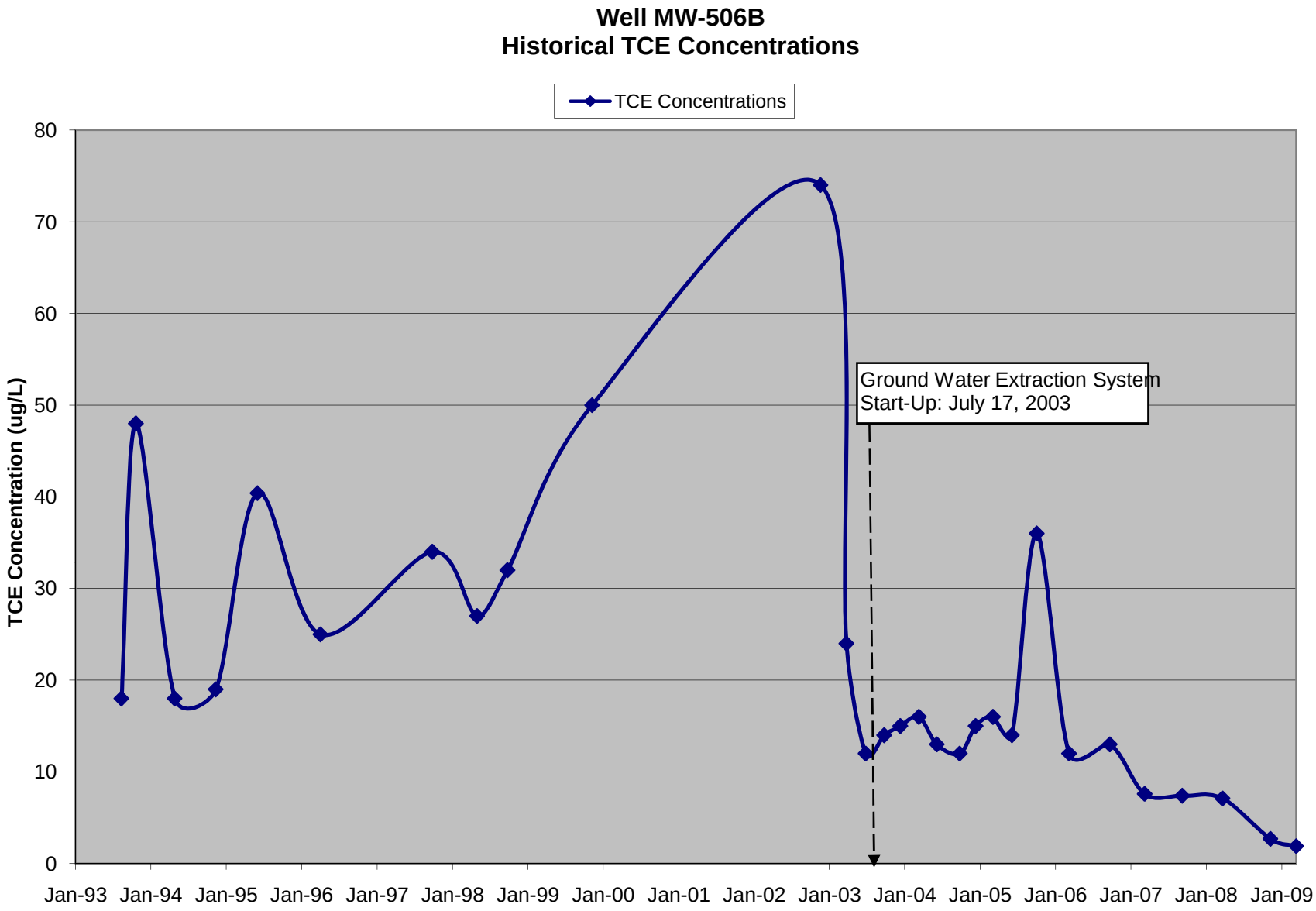
APPENDIX B

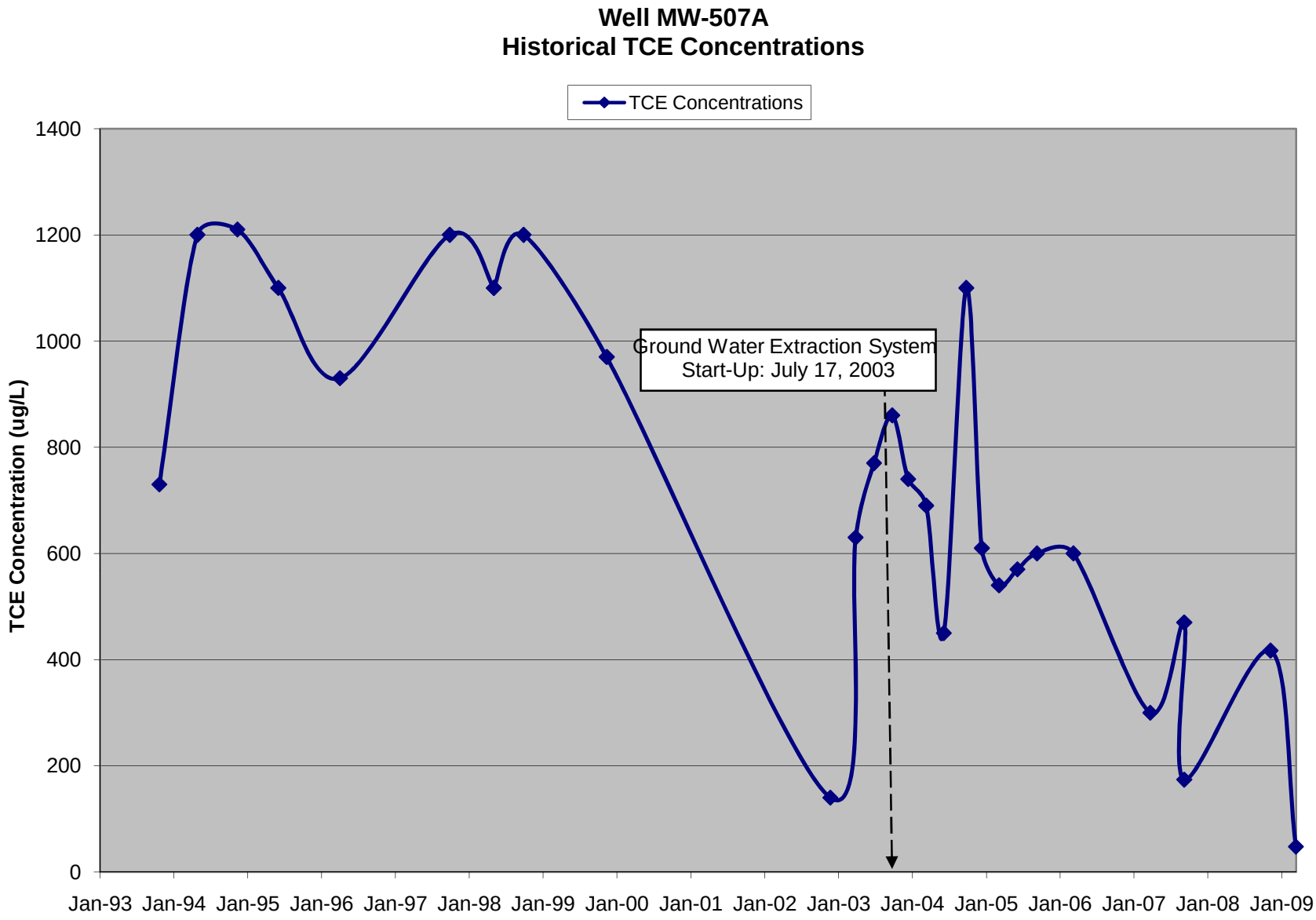
Plots of TCE Concentration Versus Time for Selected Monitoring Wells

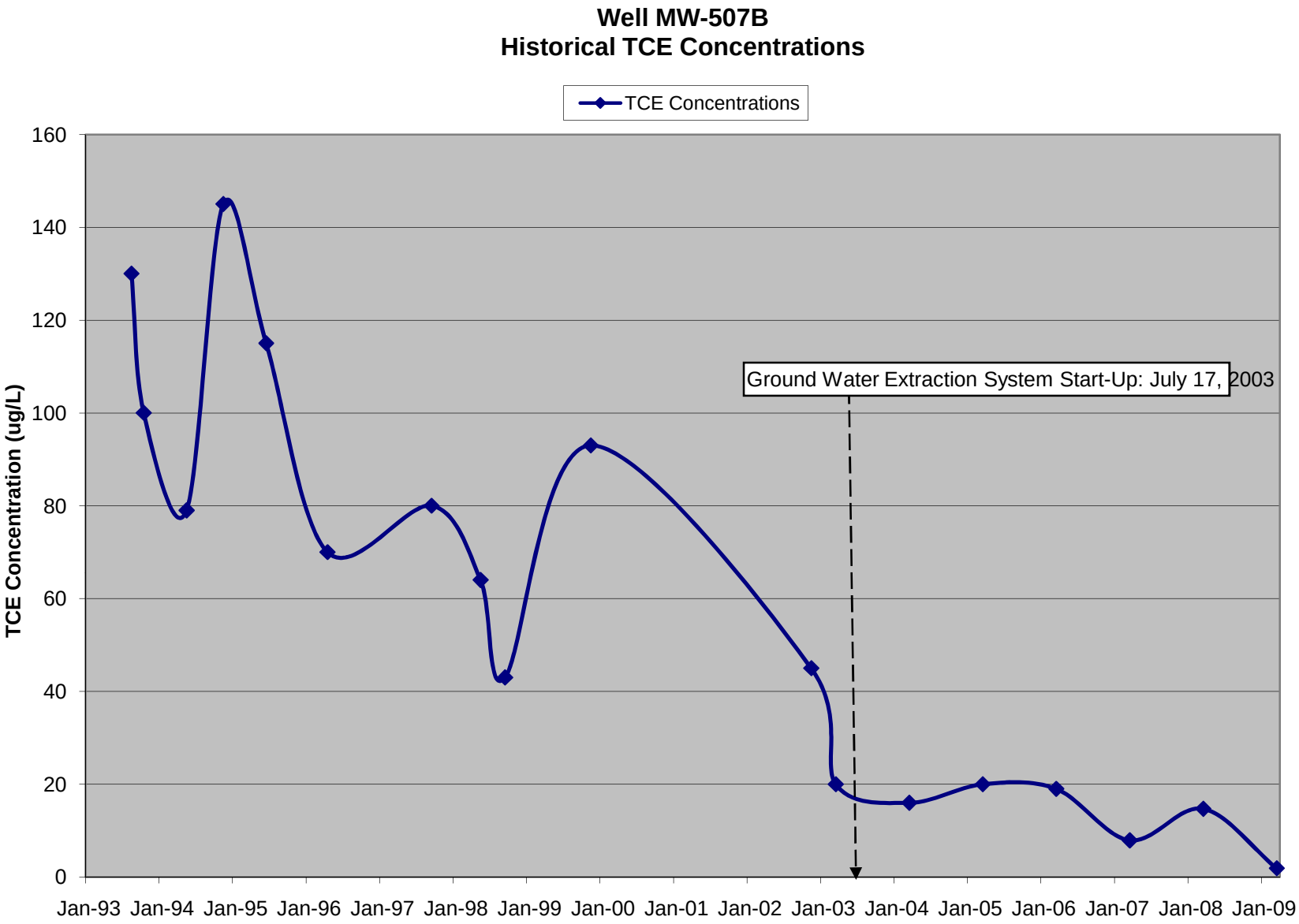

Well MW-502A
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
0
1
2
3
4
5
6
7
8
9
Ground Water Extraction System Start-Up: July 17, 2003
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

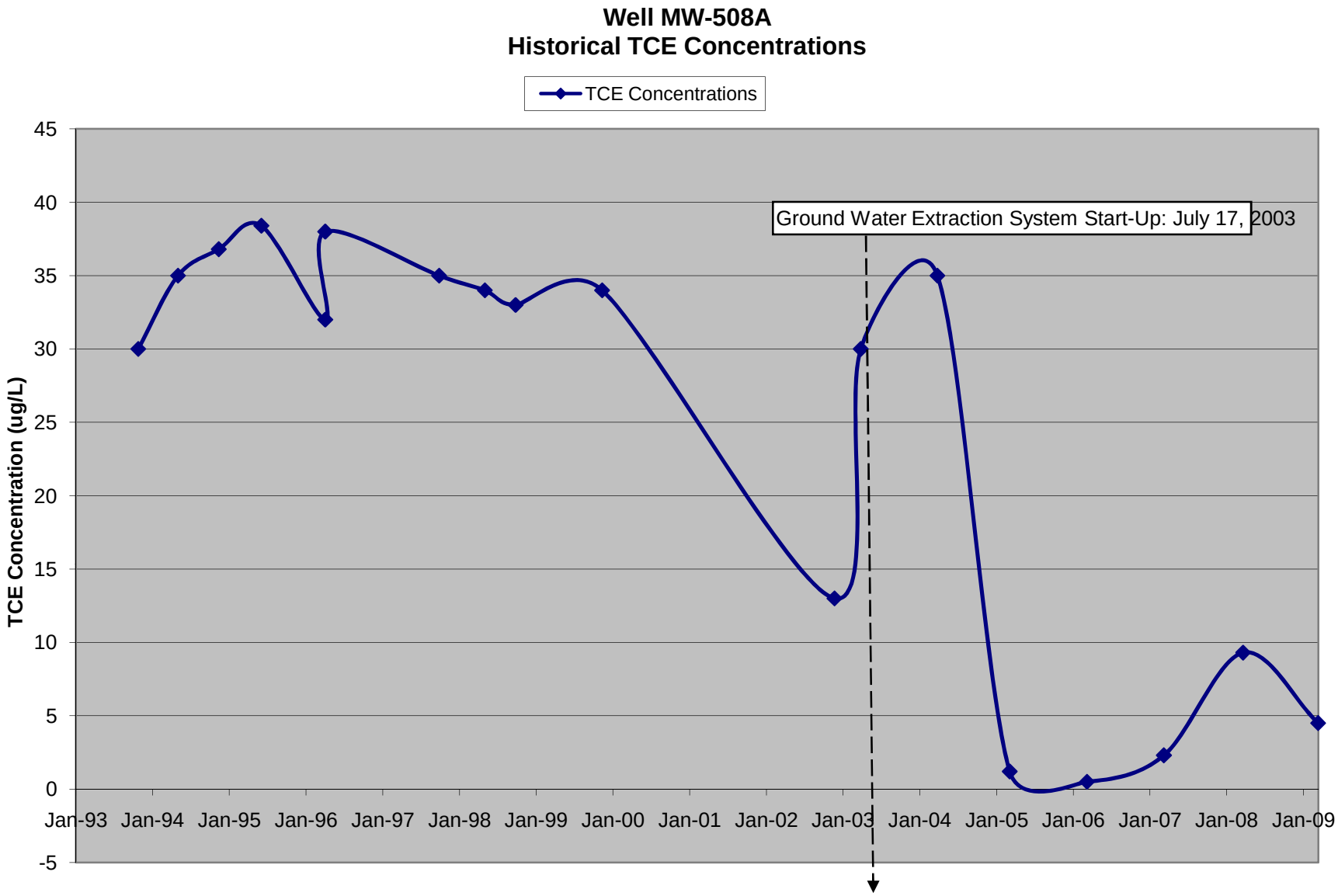

Well MW-502B
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
1800
1600
1400
1200
1000
800
600
400
200
0
Ground Water Extraction System Start-Up: July 17, 2003
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

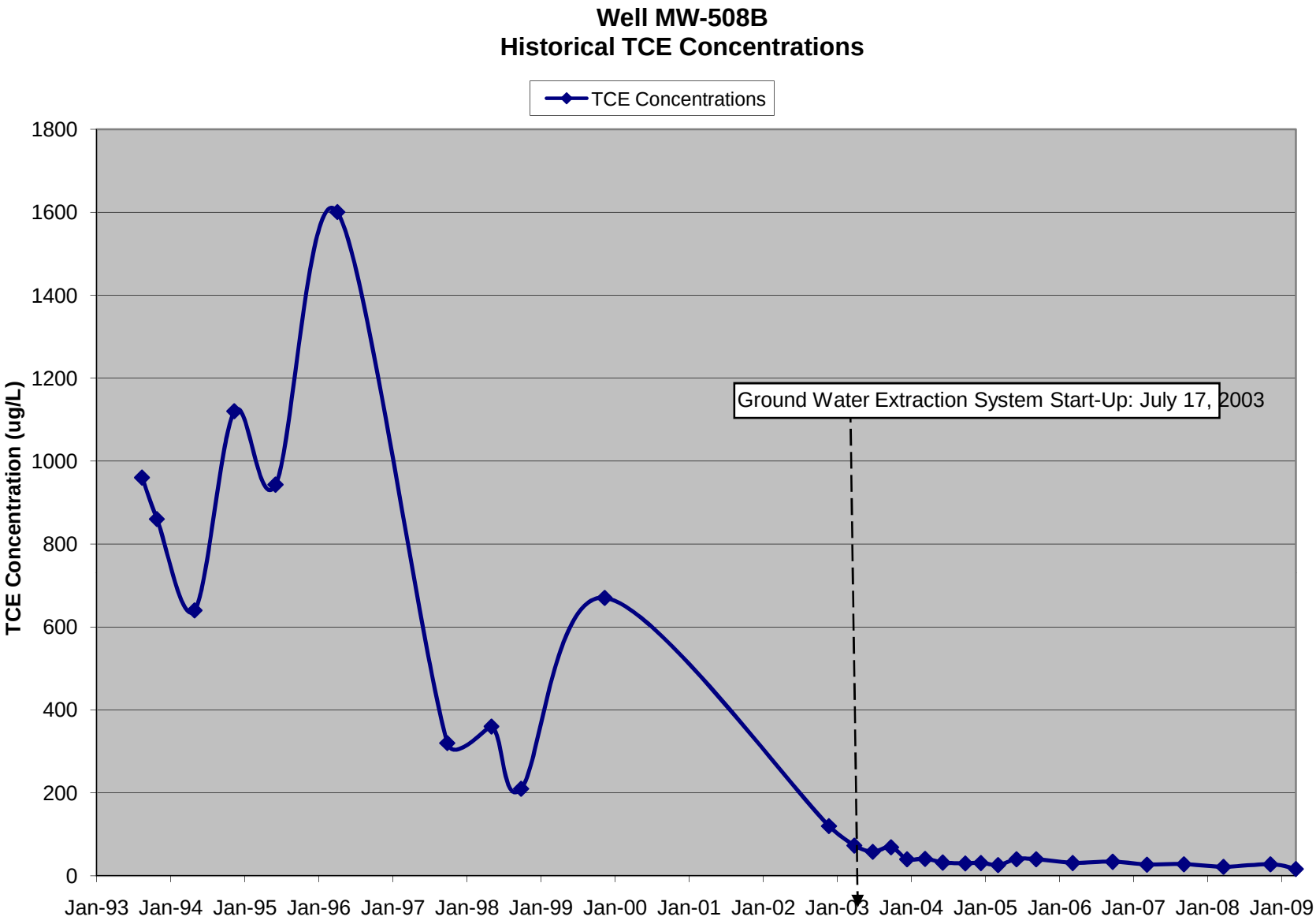

Well MW-506A
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
2500
2000
1500
1000
500
0
Ground Water Extraction System Start-Up: July 17, 2003
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

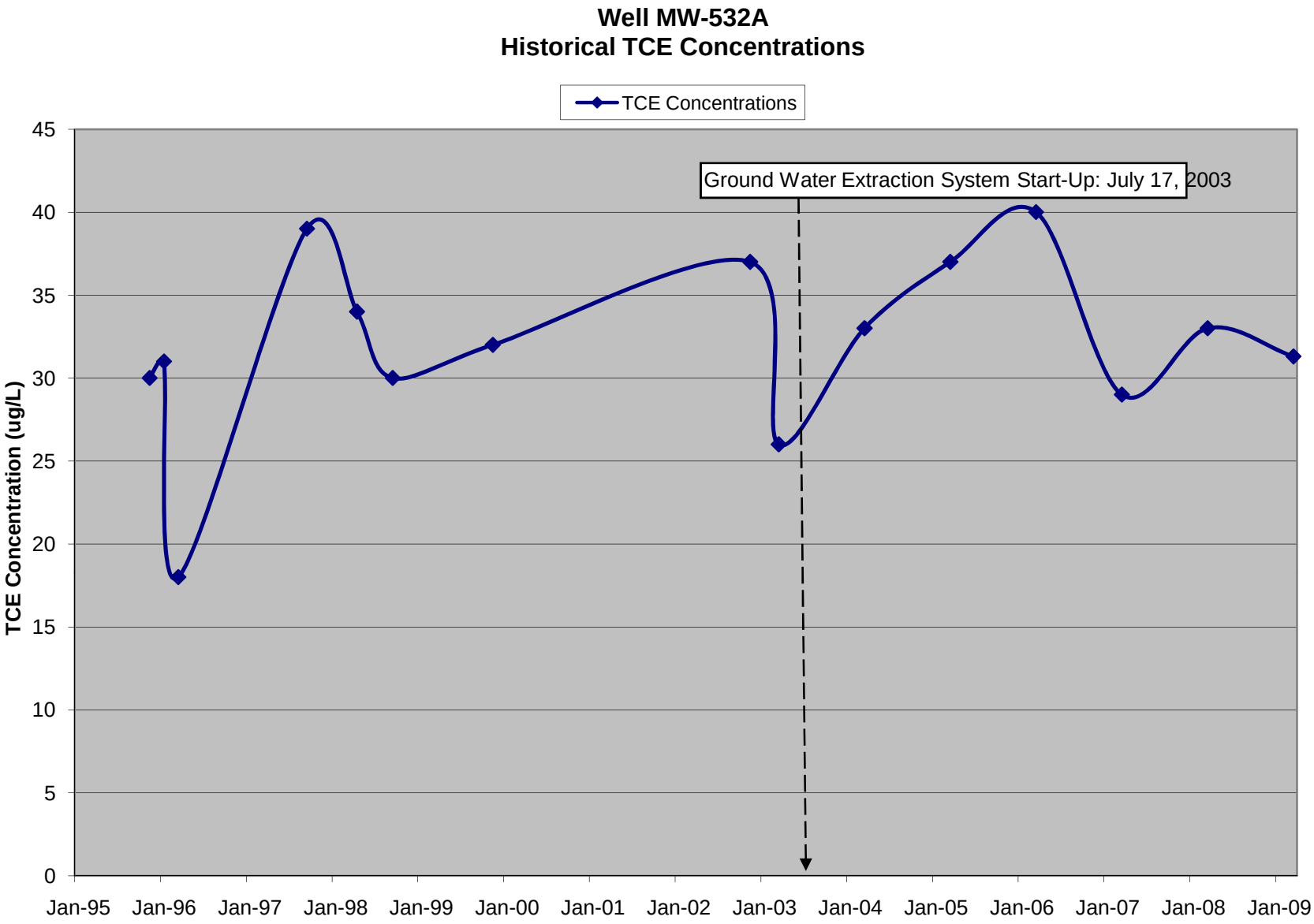

Well MW-506B
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
80
70
60
50
40
30
20
10
0
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Ground Water Extraction System
Start-Up: July 17, 2003

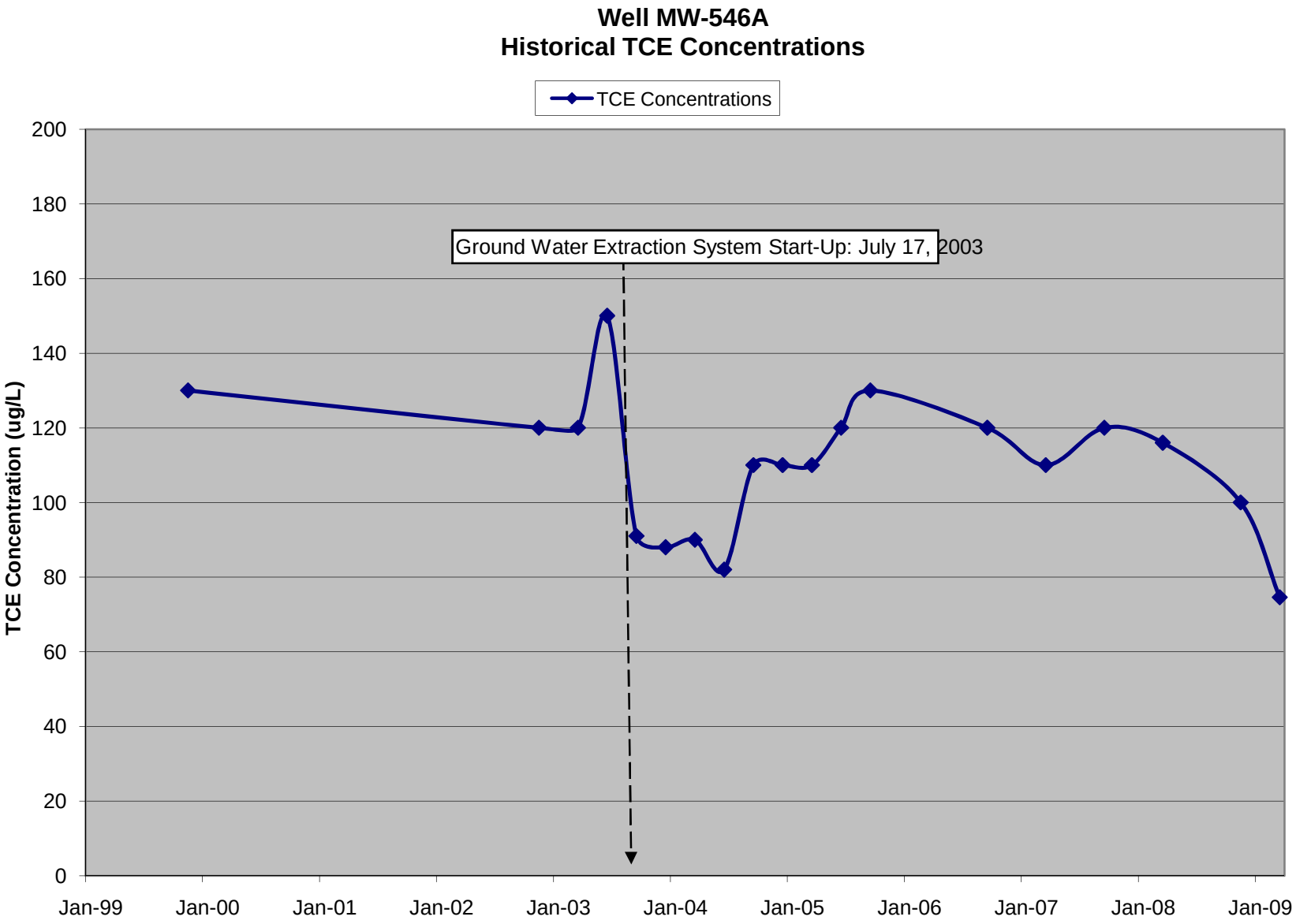

Well MW-507A
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
1400
1200
1000
800
600
400
200
0
Ground Water Extraction System
Start-Up: July 17, 2003
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

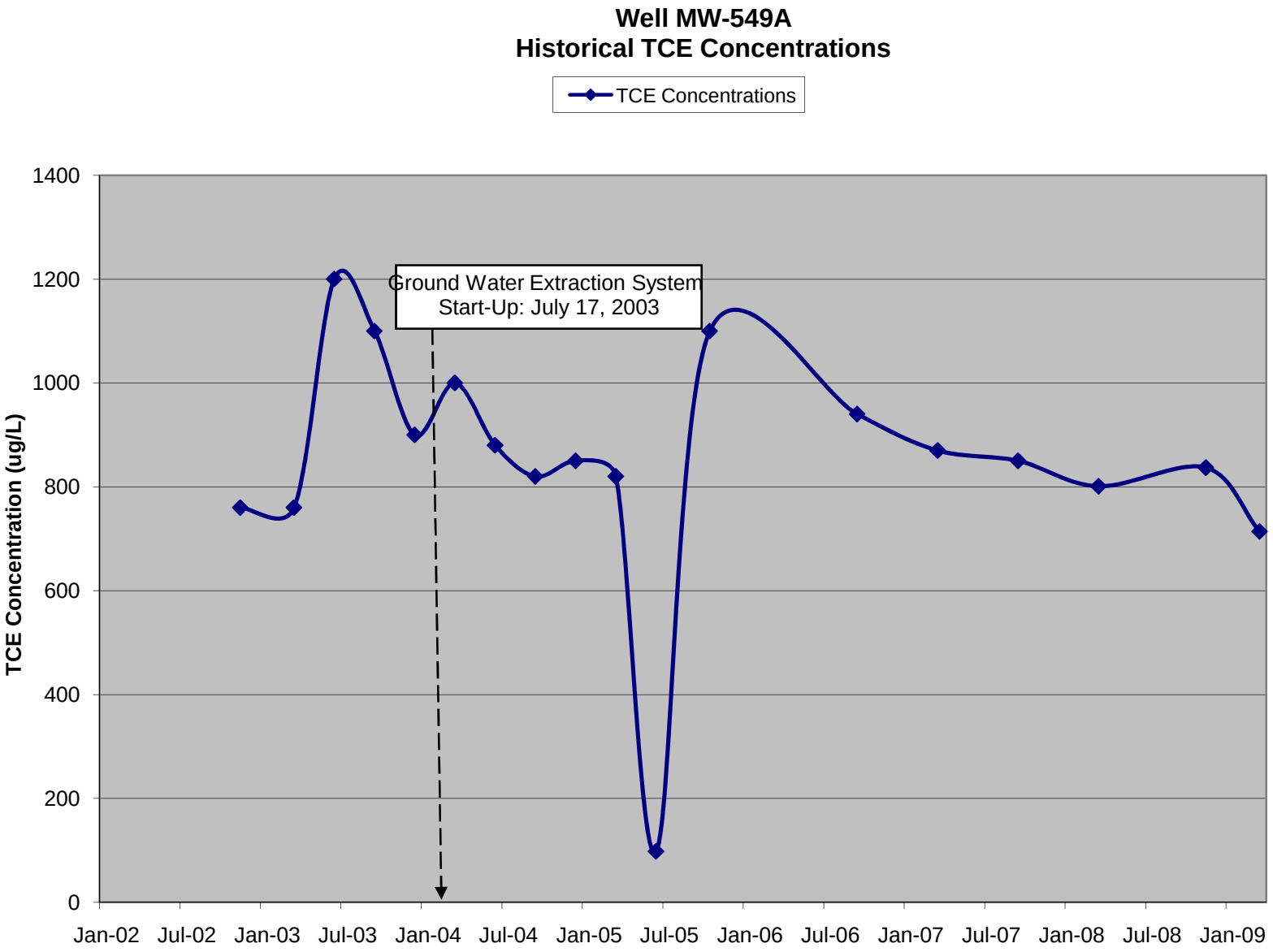

Well MW-507B
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
160
140
120
100
80
60
40
20
0
Ground Water Extraction System Start-Up: July 17, 2003
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09


Well MW-508A
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
45
40
35
30
25
20
15
10
5
0
-5
Ground Water Extraction System Start-Up: July 17, 2003
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

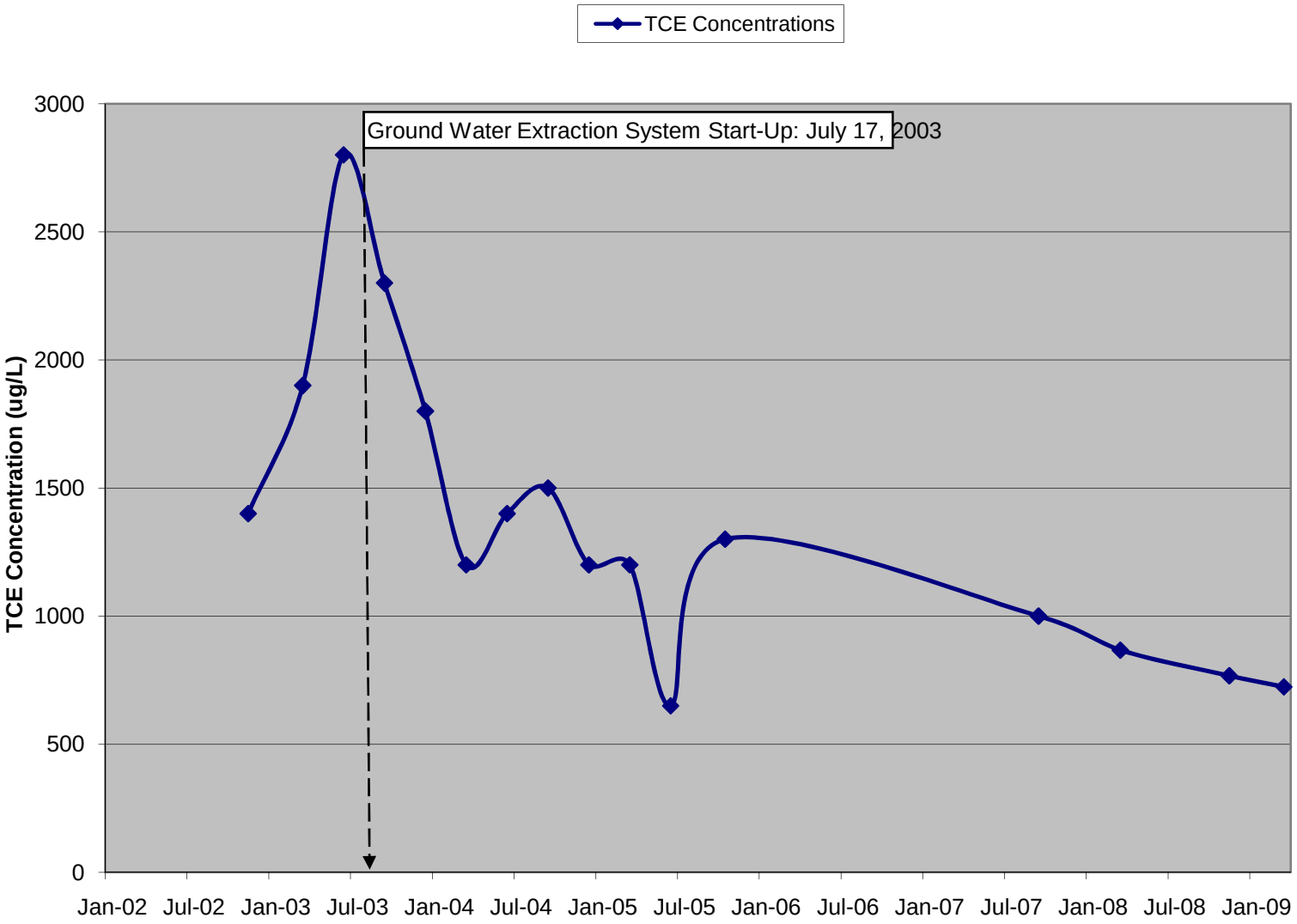

Well MW-508B
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
1800
1600
1400
1200
1000
800
600
400
200
0
Ground Water Extraction System Start-Up: July 17, 2003
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

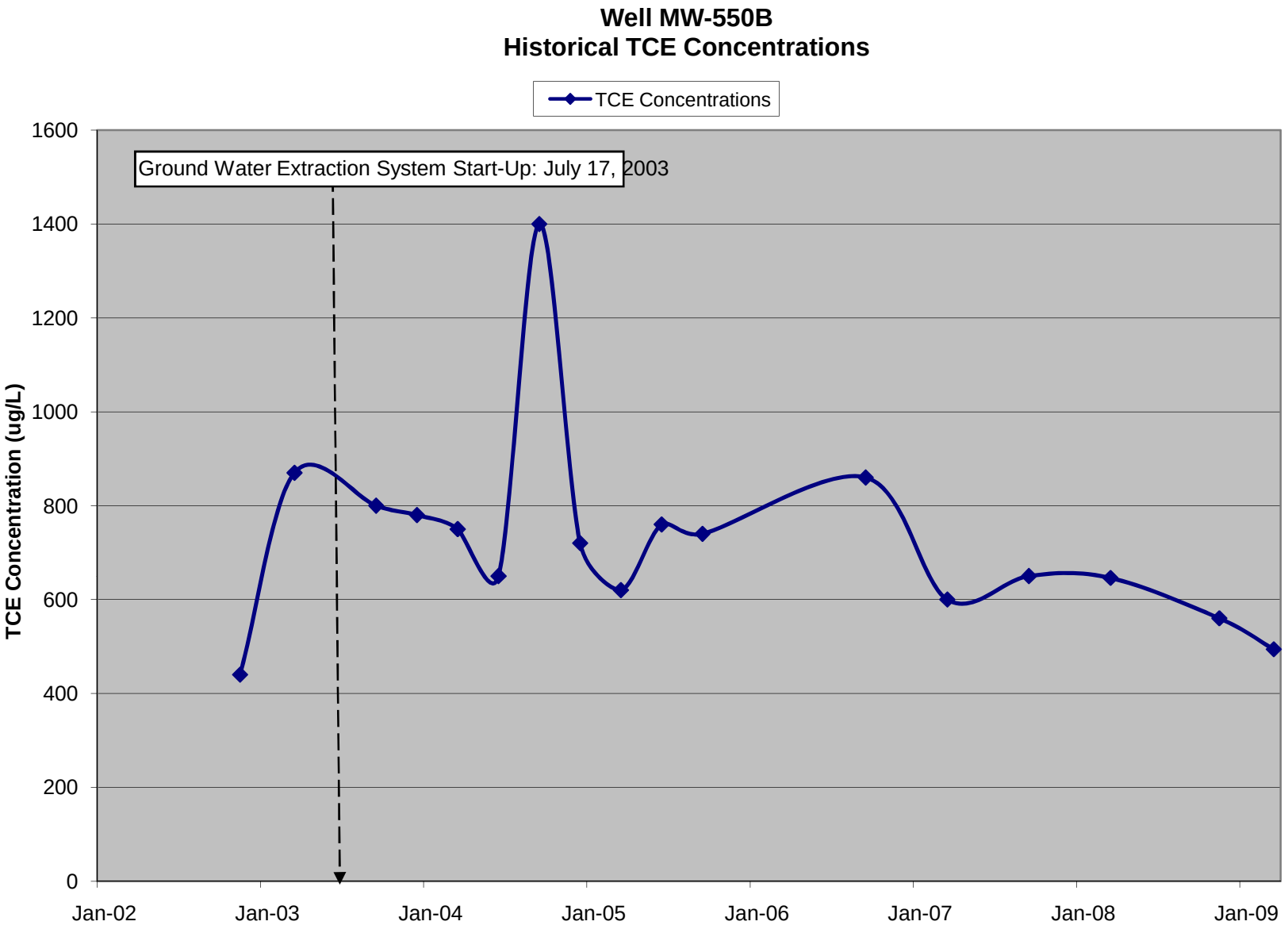

Well MW-532A
Historical TCE Concentrations
TCE Concentrations
Ground Water Extraction System Start-Up: July 17, 2003
TCE Concentration (ug/L)
45
40
35
30
25
20
15
10
5
0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

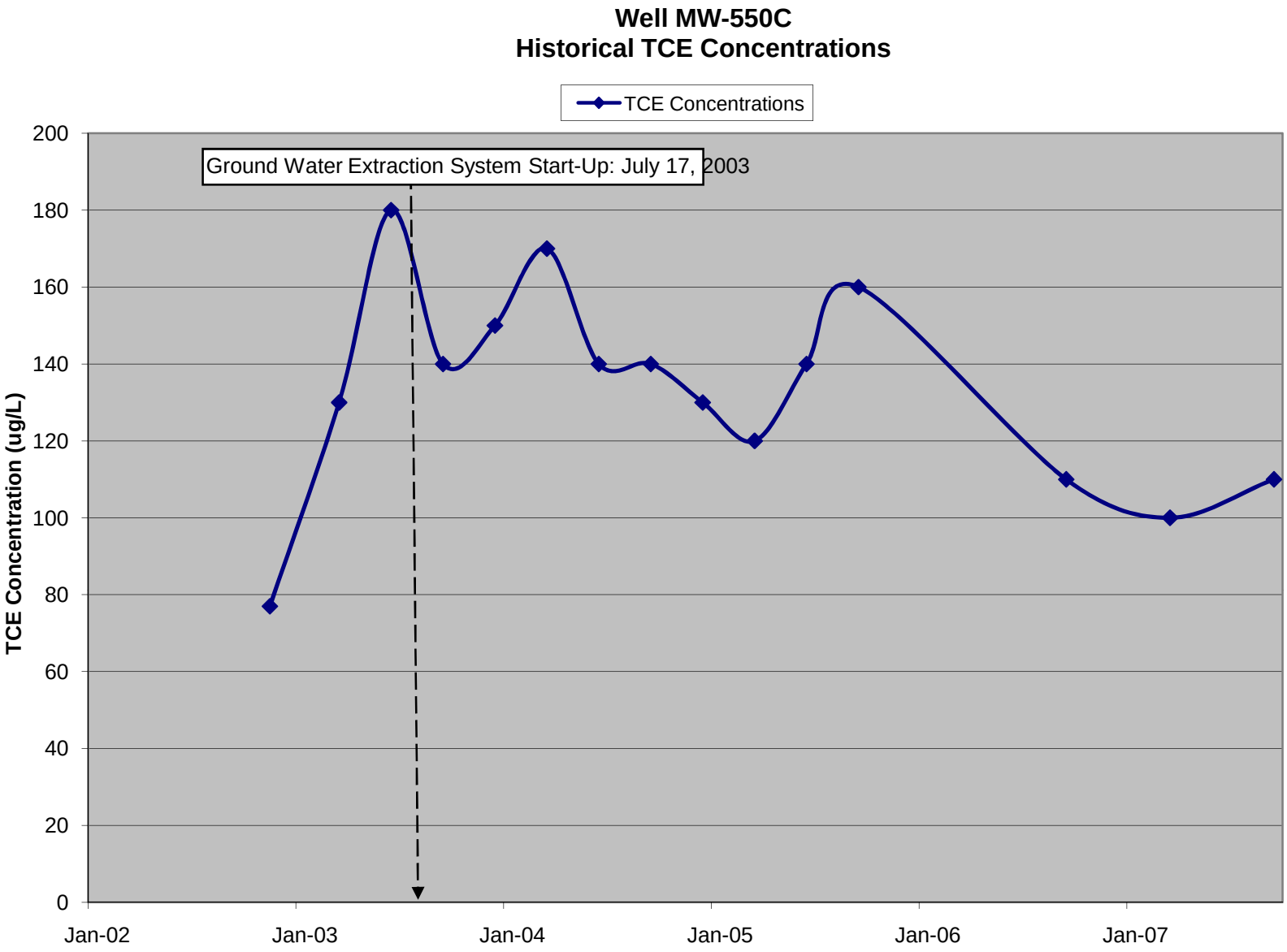

Well MW-546A
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
200
180
160
140
120
100
80
60
40
20
0
Ground Water Extraction System Start-Up: July 17, 2003
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

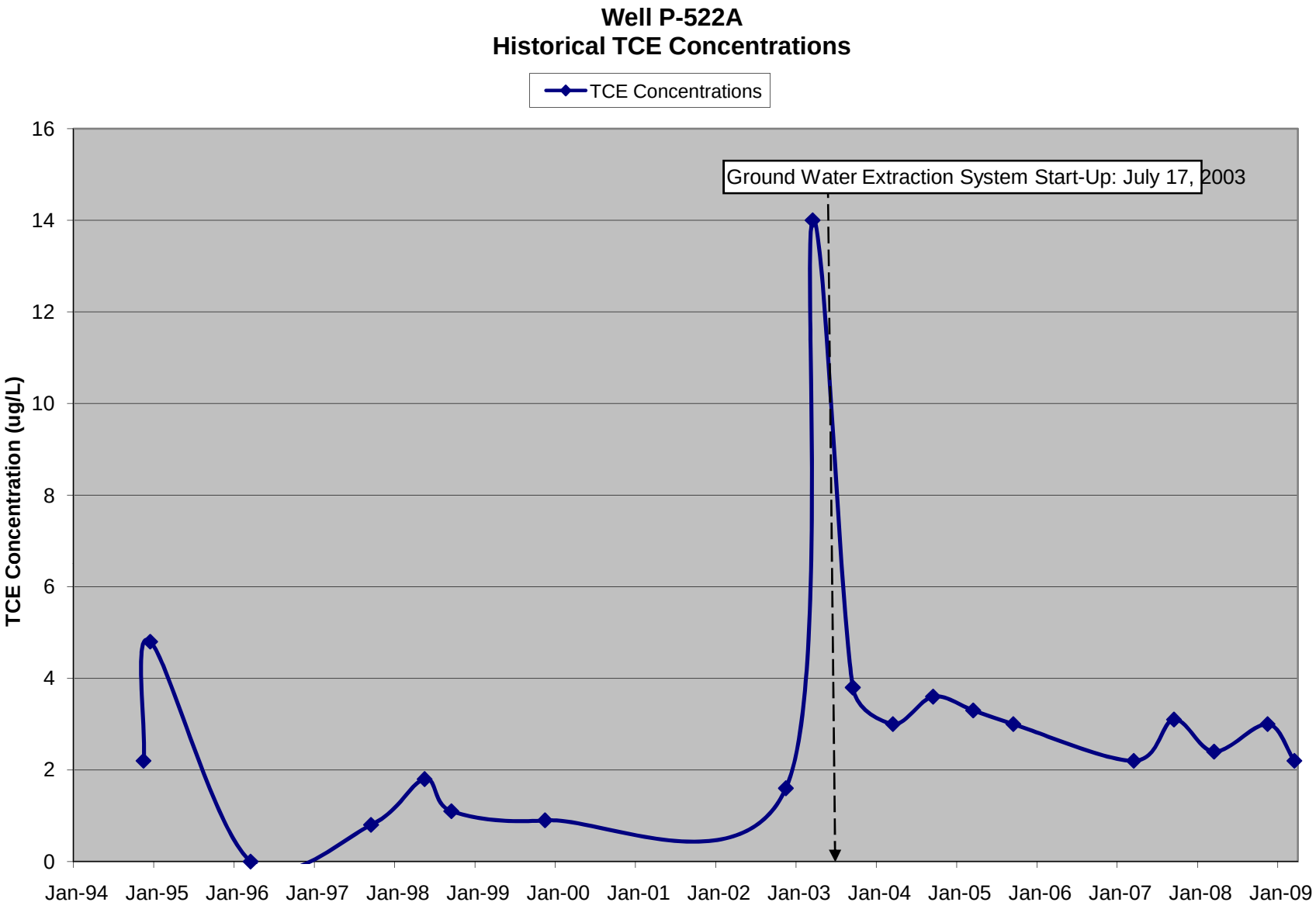

Well MW-549A
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
1400
1200
1000
800
600
400
200
0
Ground Water Extraction System
Start-Up: July 17, 2003
Jan-02
Jul-02
Jan-03
Jul-03
Jan-04
Jul-04
Jan-05
Jul-05
Jan-06
Jul-06
Jan-07
Jul-07
Jan-08
Jul-08
Jan-09

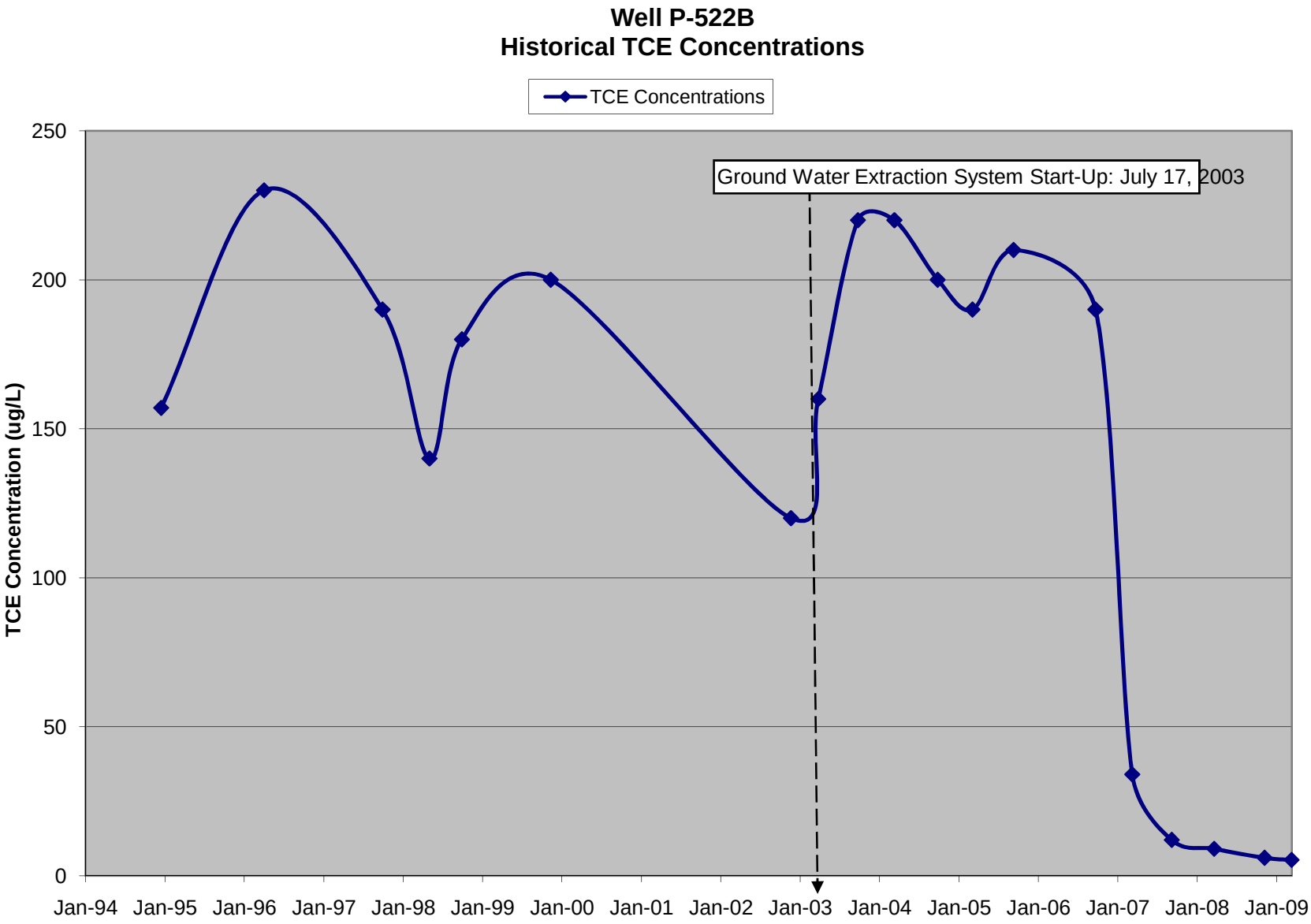
Well MW-549B
Historical TCE Concentrations

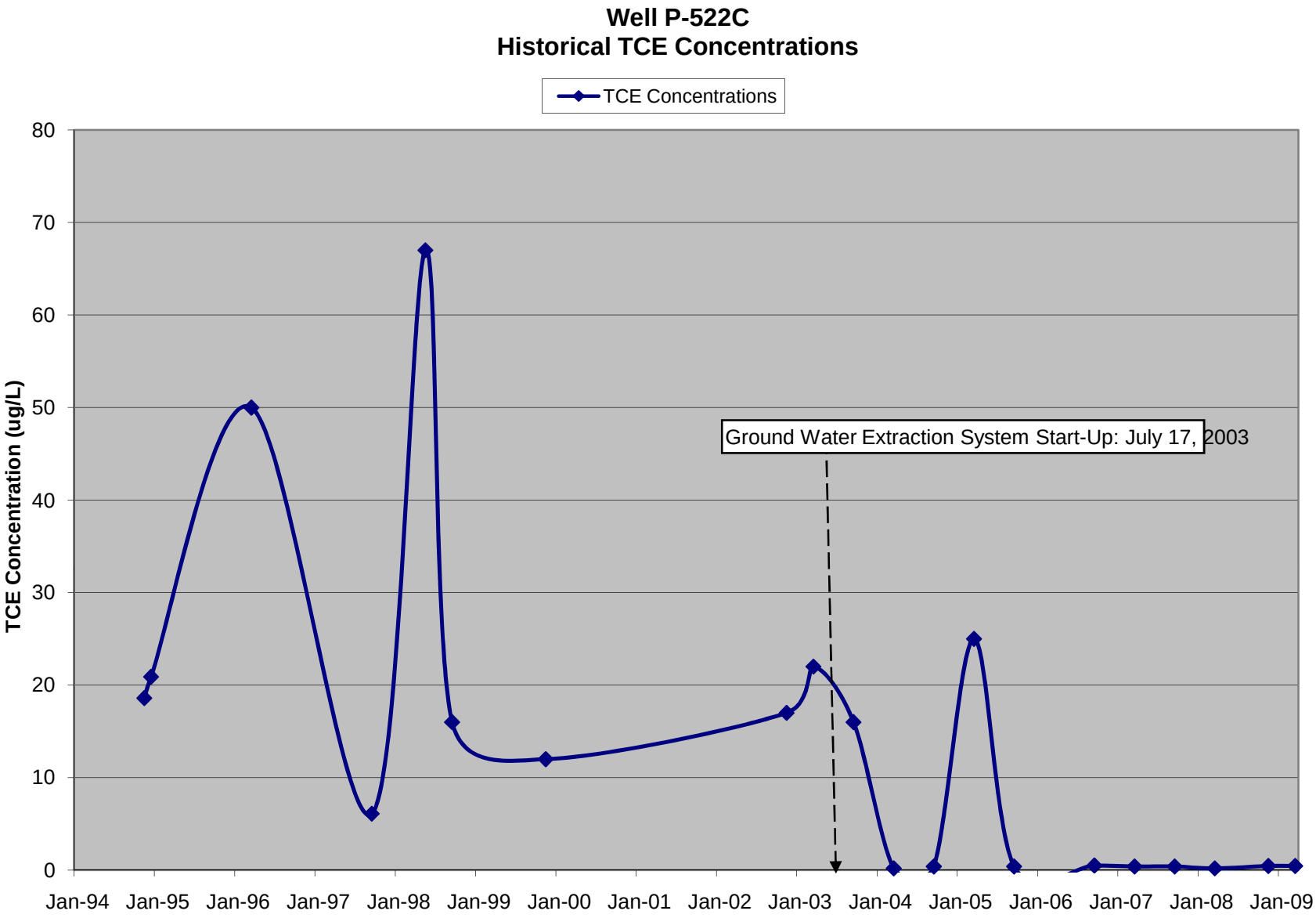



Well MW-550B
Historical TCE Concentrations
TCE Concentrations
Ground Water Extraction System Start-Up: July 17, 2003
TCE Concentration (ug/L)
1600
1400
1200
1000
800
600
400
200
0
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09


Well MW-550C
Historical TCE Concentrations
TCE Concentrations
Ground Water Extraction System Start-Up: July 17, 2003
TCE Concentration (ug/L)
200
180
160
140
120
100
80
60
40
20
0
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07


Well P-522A
Historical TCE Concentrations
TCE Concentrations
Ground Water Extraction System Start-Up: July 17, 2003
TCE Concentration (ug/L)
16
14
12
10
8
6
4
2
0
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09


Well P-522B
Historical TCE Concentrations
TCE Concentrations
Ground Water Extraction System Start-Up: July 17, 2003
TCE Concentration (ug/L)
250
200
150
100
50
0
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09


Well P-522C
Historical TCE Concentrations
TCE Concentrations
TCE Concentration (ug/L)
80
70
60
50
40
30
20
10
0
Ground Water Extraction System Start-Up: July 17, 2003
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09

APPENDIX C

Stream Sampling Field Measurements

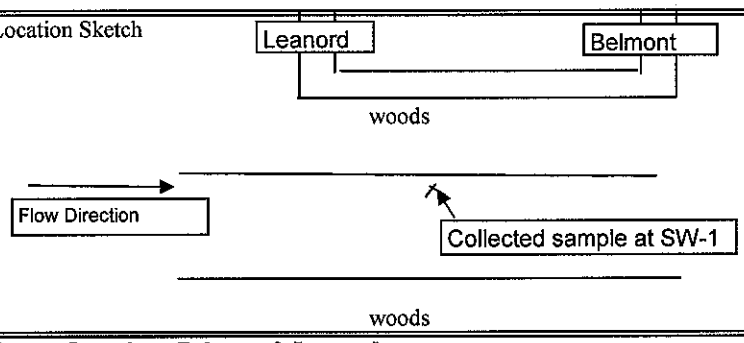
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site			Sample Date:	9/5/2007
Stream Location:	Crab Brook			Sample Time:	14:30
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):	3.55	Flow Rate(gpm):	1593.24

Sample Appearance/Odor:	Clear	Sampler(s):	RA/TD
pH	7.51	Temperature	20.01
Conductivity	0.876 mS/cm	Salinity	--
Turbidity	8.3	Eh	145
DO	8.15		
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	5.0	0.20	0.50	0.5	224.400
#2	5.0	0.40	0.00	0.0	0.000
#3	5.0	0.85	0.20	0.9	381.480
#4	5.0	1.10	0.40	2.2	987.360
Total Width	5.0			3.55	1593.24

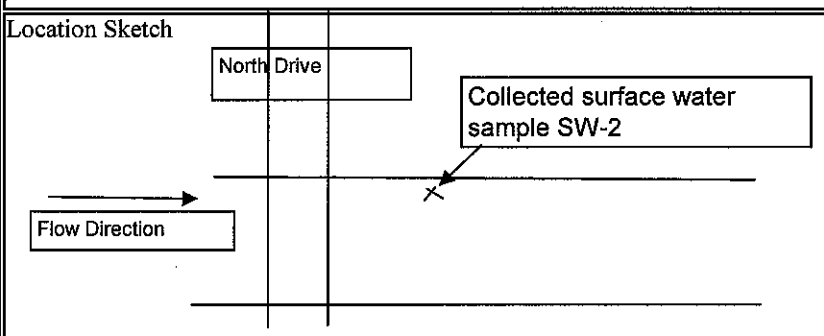
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab brook

Site ID:	Former LEC Site			Sample Date:	9/5/2007
Stream Location:	Crab Brook			Sample Time:	14:15
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): 0.57		Flow Rate(gpm):	255.82

Sample Appearance/Odor:	Clear	Sampler(s):	RA/TD
pH	7.09	Temperature	16.82
Conductivity	0.400 mS/cm	Salinity	--
Turbidity	4.8	Eh	151
DO	8.42		
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	3.0	0.30	0.30	0.3	121.176
#2	3.0	0.20	0.50	0.3	134.640
Total Width	5.0			0.57	255.82

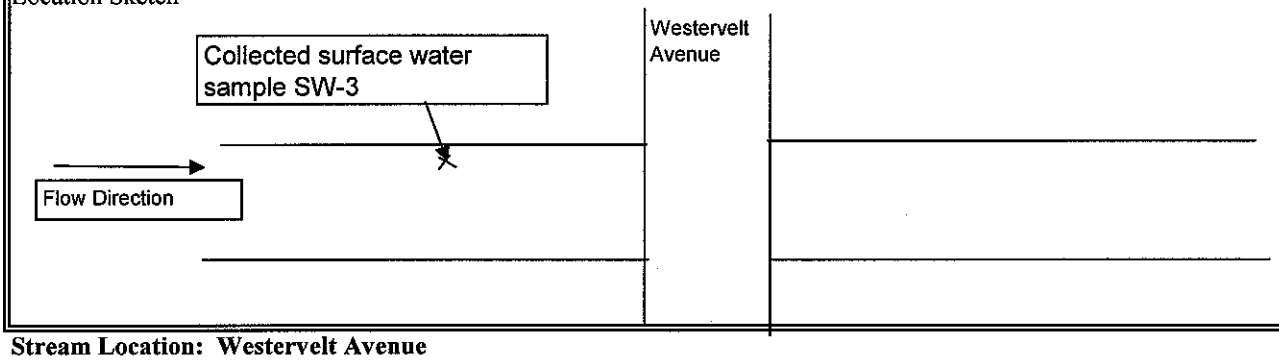
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site			Sample Date:	9/5/2007
Stream Location:	Crab Brook			Sample Time:	13:55
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):	1.00	Flow Rate(gpm):	449

Sample Appearance/Odor:	Clear	Sampler(s):	RA/TD
pH	7.00	Temperature	18.30
Conductivity	0.667 mS/cm	Salinity	--
Turbidity	4.4	Eh	149
DO	8.68		
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	5.0	0.10	0.00	0.00	0.00
#2	5.0	0.20	0.20	0.20	89.76
#3	5.0	0.20	0.80	0.80	359.04
#4	5.0	0.20	0.00	0.00	0.00
Total Width	4.0			1.00	448.8

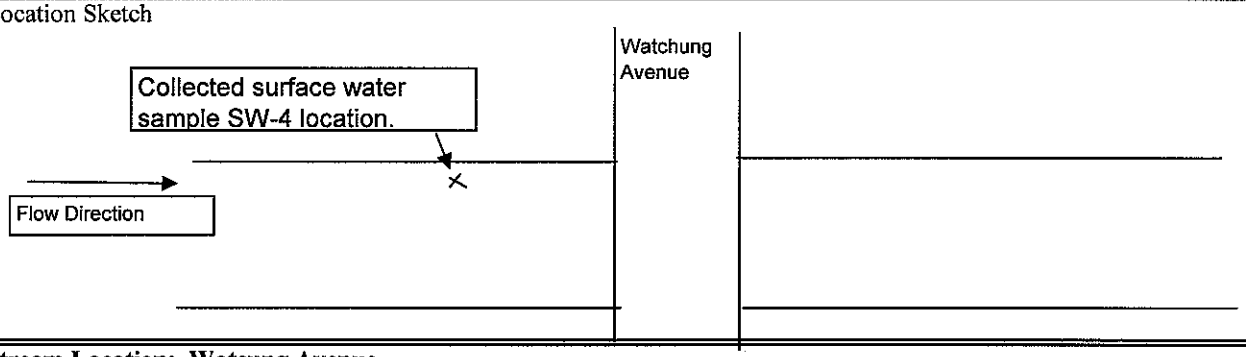
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site	Sample Date:	9/5/2007
Stream Location:	Crab Brook	Sample Time:	13:15
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): 1.68	Flow Rate(gpm): 754

Sample Appearance/Odor:	Clear	Sampler(s):	RA/TD
pH	6.43	Temperature	21.01
Conductivity	0.347 mS/cm	Salinity	--
Turbidity	7.7	Eh	120
DO	11.53		
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	6.0	0.10	0.00	0	0
#2	6.0	0.20	0.70	0.84	376.992
#3	6.0	0.20	0.20	0.24	107.712
#4	6.0	0.20	0.50	0.6	269.28
#5	6.0	0.20	0.00	0	0
Total Width	5.0			1.68	753.984

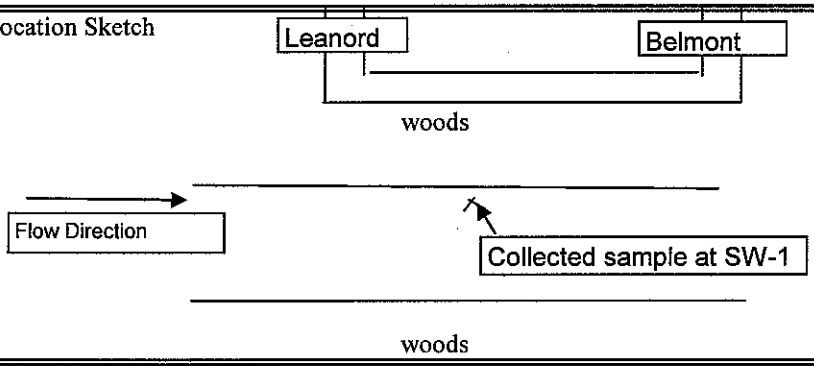
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site			Sample Date:	3/18/2008
Stream Location:	Crab Brook			Sample Time:	11:32
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):	1.30	Flow Rate(gpm):	581.20

Sample Appearance/Odor:	Clear	Sampler(s):	PP/TD
pH	7.96	Temperature	6.71
Conductivity	0.633 mS/cm	Salinity	0.0
Turbidity	5.0	Eh	221
DO	13.16		
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	5.0	0.10	0.76	0.4	170.544
#2	5.0	0.10	0.84	0.4	188.496
#3	5.0	0.10	0.20	0.1	44.880
#4	5.0	0.10	0.79	0.4	177.276
Total Width	5.0			1.30	581.20

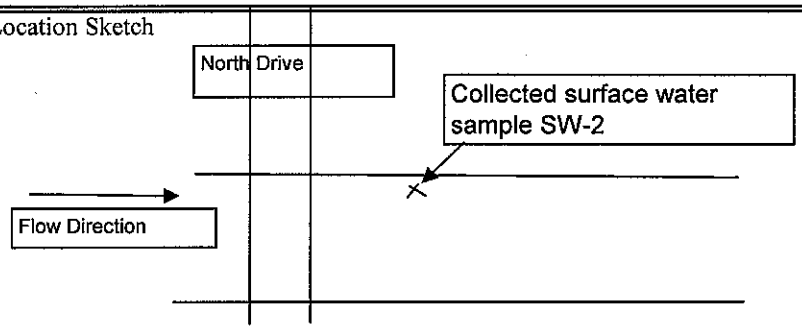
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab brook

Site ID:	Former LEC Site			Sample Date:	3/18/2008
Stream Location:	Crab Brook			Sample Time:	11:09
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): 2.15		Flow Rate(gpm):	964.02

Sample Appearance/Odor:	Clear	Sampler(s):	PP/TD
pH	7.61	Temperature	8.11
Conductivity	0.691 mS/cm	Salinity	0.0
Turbidity	4.0	Eh	237
DO	11.09		
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	3.0	0.20	1.12	0.7	301.594
#2	3.0	0.30	1.64	1.5	662.429
Total Width	5.0			2.15	964.02

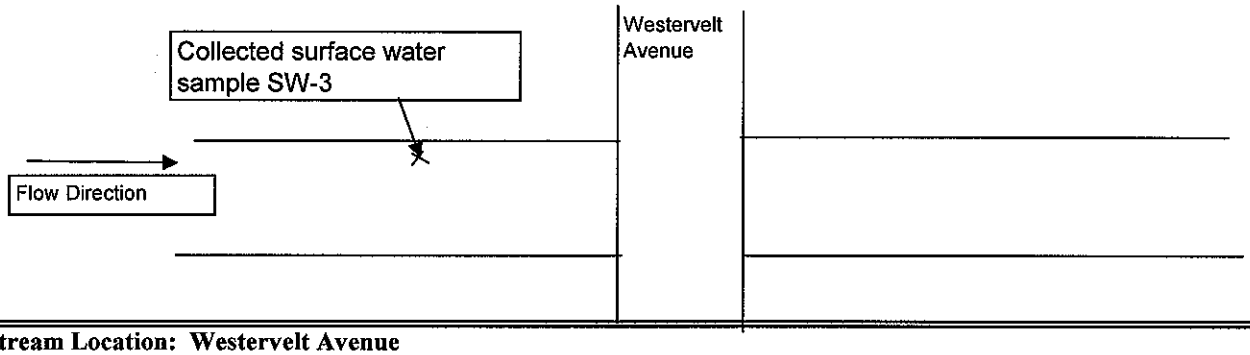
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site			Sample Date:	3/18/2008
Stream Location:	Crab Brook			Sample Time:	10:56
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): 3.92		Flow Rate(gpm):	1759

Sample Appearance/Odor:	Clear	Sampler(s):	PP/TD
pH	7.57	Temperature	7.90
Conductivity	0.698 mS/cm	Salinity	0.0
Turbidity	6.4	Eh	194
DO	11.58		
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	5.0	0.20	0.48	0.480	215.424
#2	5.0	0.25	0.70	0.875	392.7
#3	5.0	0.30	0.84	1.26	565.488
#4	5.0	0.30	0.87	1.305	585.684
Total Width	4.0			3.920	1759.296

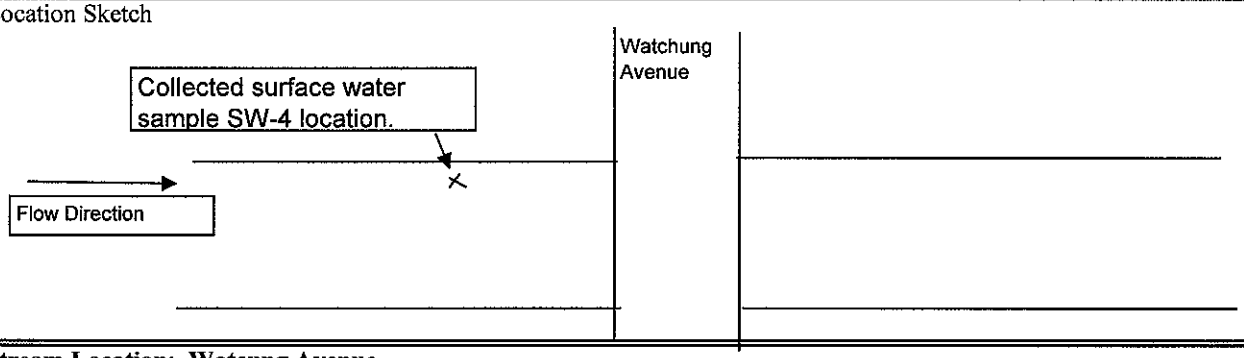
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site			Sample Date:	3/18/2008
Stream Location:	Crab Brook			Sample Time:	10:34
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):	3.16	Flow Rate(gpm):	1419

Sample Appearance/Odor:	Clear	Sampler(s):	PP/TD
pH	7.59	Temperature	8.69
Conductivity	0.710 mS/cm	Salinity	0.0
Turbidity	3.7	Eh	192
DO	13.12		
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	6.0	0.20	0.18	0.216	96.9408
#2	6.0	0.30	0.51	0.918	411.9984
#3	6.0	0.40	0.29	0.696	312.365
#4	6.0	0.30	0.74	1.332	597.8016
Total Width	5.0			3.162	1419.1056

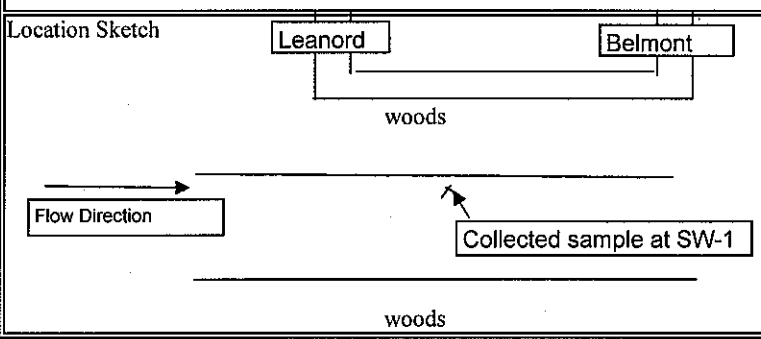
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site			Sample Date:	11/6/2008
Stream Location:	Crab Brook			Sample Time:	10:40
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):	2.36	Flow Rate(gpm):	1059

Sample Appearance/Odor:	Clear	Sampler(s):	JO/TD
pH	7.60	Temperature	--
Conductivity	0.382 mS/cm	Salinity	--
Turbidity	--	Eh	126
DO	7.88		
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	4.0	0.20	0.20	0.2	71.808
#2	4.0	0.50	0.50	1.0	448.800
#3	4.0	1.00	0.30	1.2	538.560
Total Width	4.0			2.36	1059.17

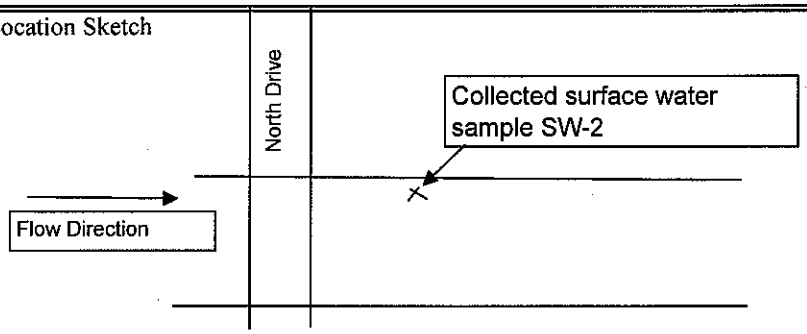
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab brook

Site ID:	Former LEC Site			Sample Date:	11/6/2008
Stream Location:	Crab Brook			Sample Time:	10:20
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):	2.40	Flow Rate(gpm):	1077

Sample Appearance/Odor:	Clear	Sampler(s):	JO/TD
pH	7.33	Temperature	15.73
Conductivity	0.692 mS/cm	Salinity	--
Turbidity	--	Eh	135
DO	7.30		
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	3.0	0.40	0.50	0.6	269.280
#2	3.0	0.40	1.50	1.8	807.840
Total Width	3.0			2.40	1077.12

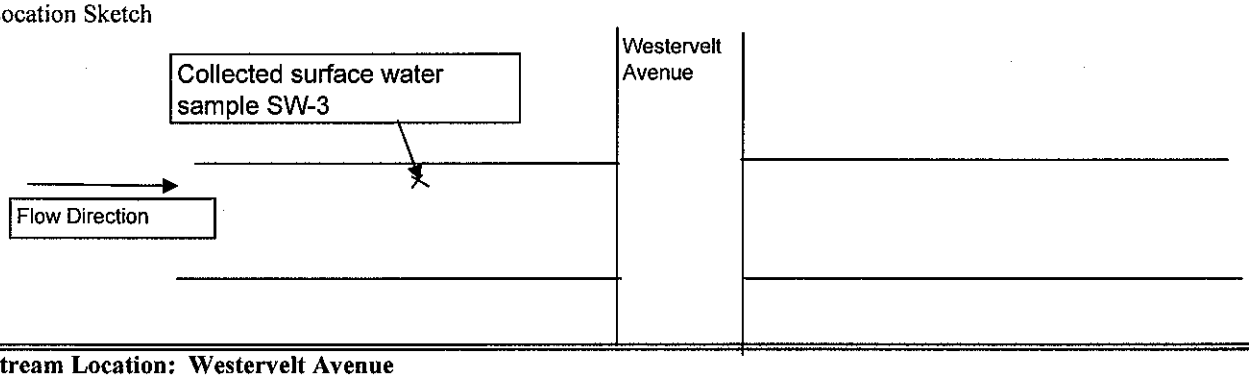
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site			Sample Date:	11/6/2008
Stream Location:	Crab Brook			Sample Time:	10:10
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): 1.95		Flow Rate(gpm):	875

Sample Appearance/Odor:	Clear	Sampler(s):	JO/TD
pH	7.16	Temperature	15.70
Conductivity	0.611 mS/cm	Salinity	--
Turbidity	--	Eh	141
DO	6.24		
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	5.0	0.25	0.30	0.38	168.30
#2	5.0	0.30	0.30	0.45	201.96
#3	5.0	0.30	0.50	0.75	336.60
#4	5.0	0.25	0.30	0.38	168.30
Total Width	5.0			1.95	875.16

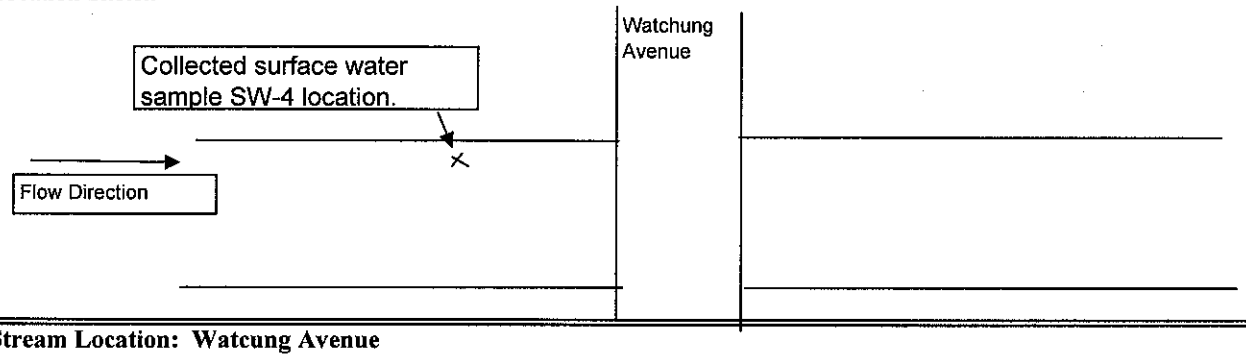
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site	Sample Date:	11/6/2008
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): 1.44	Flow Rate(gpm): 646

Sample Appearance/Odor:	Clear	Sampler(s):	JO/TD
pH	7.03	Temperature	15.45
Conductivity	0.534 mS/cm	Salinity	--
Turbidity	5.8	Eh	161
DO	6.59		
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	4.0	0.30	0.20	0.24	107.712
#2	4.0	0.30	0.50	0.6	269.28
#3	4.0	0.30	0.50	0.6	269.28
Total Width	4.0			1.44	646.272

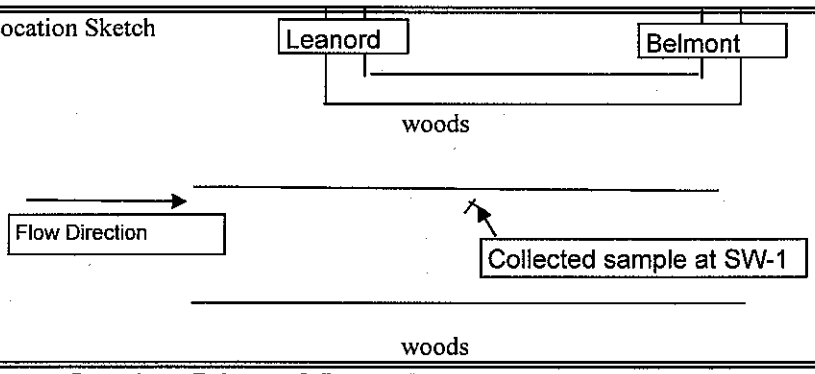
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site	Sample Date:	3/10/2009
Stream Location:	Crab Brook	Sample Time:	11:23
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): 3.55	Flow Rate(gpm): 1594.68

Sample Appearance/Odor:	Clear	Sampler(s):	JO/TJB
pH	7.55	Temperature	10.40
Conductivity	1.346 mS/cm	Salinity	0.0
Turbidity	5.0	Eh	253
DO	9.98		
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	4.0	0.62	0.37	0.9	411.819
#2	4.0	0.63	0.39	1.0	441.081
#3	4.0	0.58	0.34	0.8	354.013
#4	4.0	0.60	0.36	0.9	387.763
Total Width	4.0			3.55	1594.68

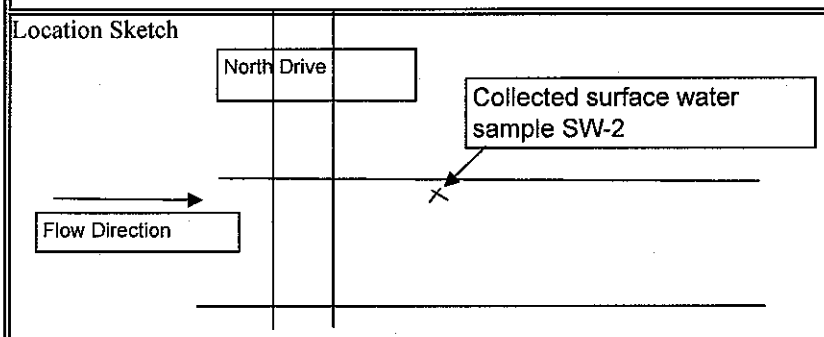
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab brook

Site ID:	Former LEC Site			Sample Date:	3/10/2009
Stream Location:	Crab Brook			Sample Time:	11:45
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): 1.42		Flow Rate(gpm):	638.42

Sample Appearance/Odor:	Clear	Sampler(s):	JO/TJB
pH	7.74	Temperature	10.40
Conductivity	2.500 mS/cm	Salinity	0.0
Turbidity	3.6	Eh	253
DO	11.97		
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	5.0	1.10	0.13	0.7	308.550
#2	5.0	1.05	0.14	0.7	329.868
#3	5.0	1.10	0.11	0.6	271.524
#4	5.0	0.95	0.13	0.6	277.134
Total Width	3.0			1.42	638.42

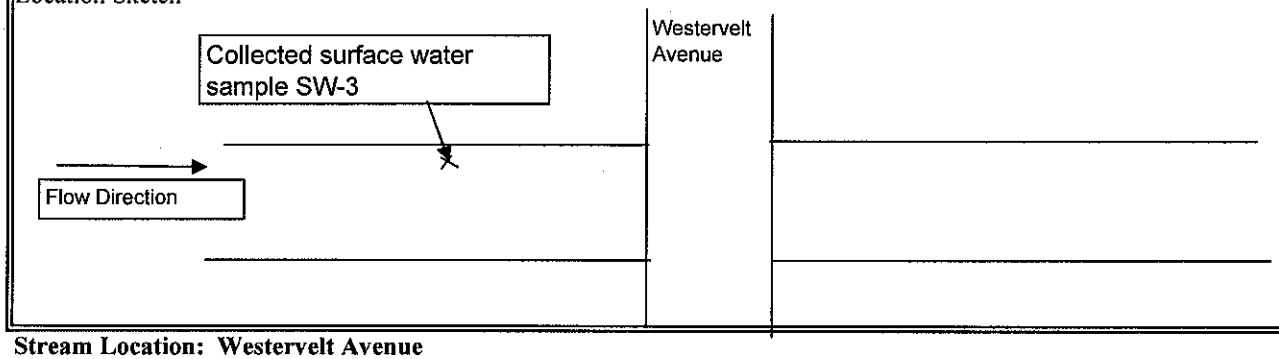
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site	Sample Date:	3/10/2009
Stream Location:	Crab Brook	Sample Time:	8:01
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): 2.80	Flow Rate(gpm): 1255

Sample Appearance/Odor:	Clear	Sampler(s):	JO/TJB
pH	6.96	Temperature	25.00
Conductivity	1.474 mS/cm	Salinity	0.0
Turbidity	5.2	Eh	114
DO	9.16		
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	7.0	0.25	0.30	0.525	235.62
#2	7.0	0.30	0.37	0.777	348.7176
#3	7.0	0.35	0.29	0.7105	318.8724
#4	7.0	0.35	0.32	0.784	351.8592
Total Width	7.0			2.797	1255.0692

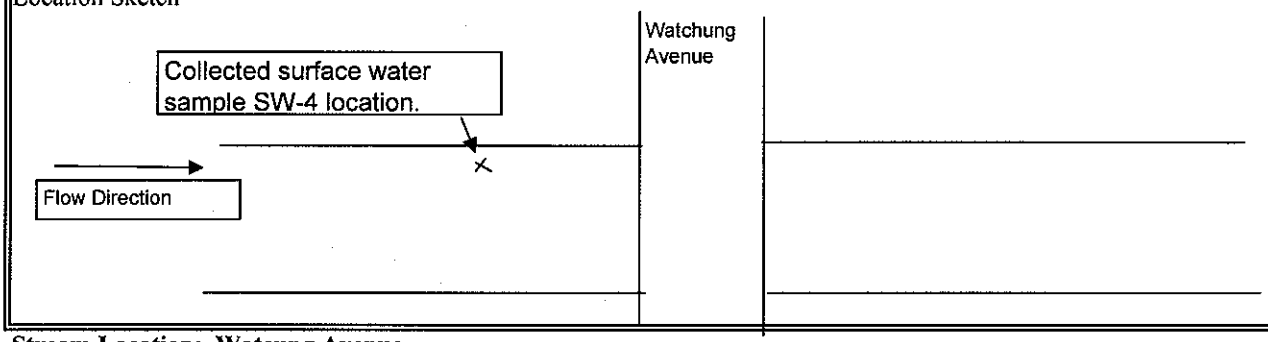
TRC Environmental Corporation
SAMPLE DATA RECORD : Crab Brook

Site ID:	Former LEC Site	Sample Date:	3/10/2009
Stream Location:	Crab Brook	Sample Time:	11:00
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): 4.22	Flow Rate(gpm): 1895

Sample Appearance/Odor:	Clear	Sampler(s):	JO/TJB
pH	7.86	Temperature	8.3
Conductivity	1.439 mS/cm	Salinity	0.0
Turbidity	3.2	Eh	306
DO	11.92		
Sample Bottles ID	SW-4	624+10	

Notes: HORIBA U-22

Location Sketch



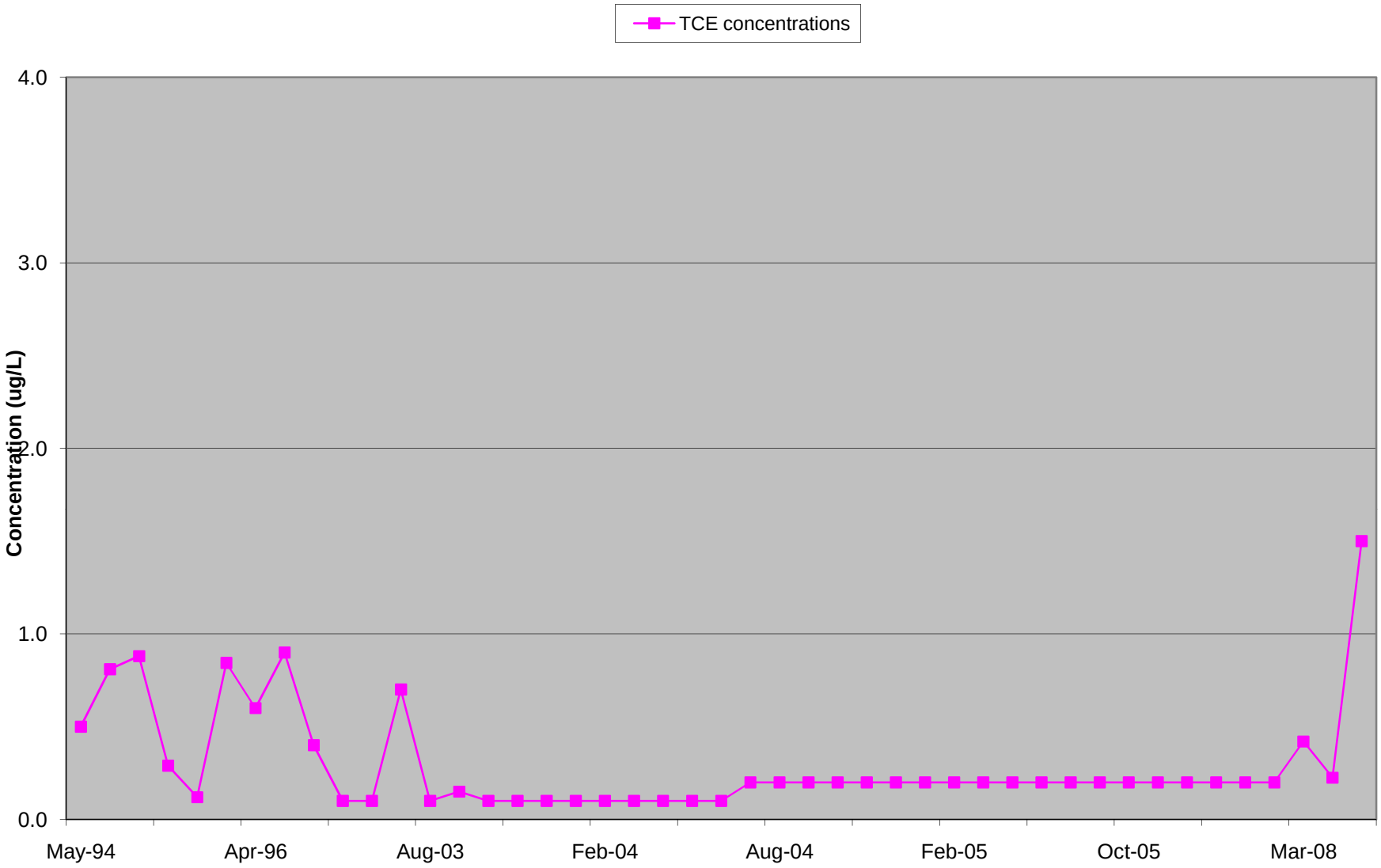
Stream Location: Watcung Avenue

SW-4	Width ft	Depth ft	Velocity ft/sec	Stream Flow ft3/sec	Stream Flow gpm
#1	7.0	0.65	0.23	1.0465	469.6692
#2	7.0	0.60	0.25	1.05	471.24
#3	7.0	0.65	0.29	1.3195	592.192
#4	7.0	0.55	0.21	0.8085	362.8548
Total Width	7.0			4.2245	1895.9556

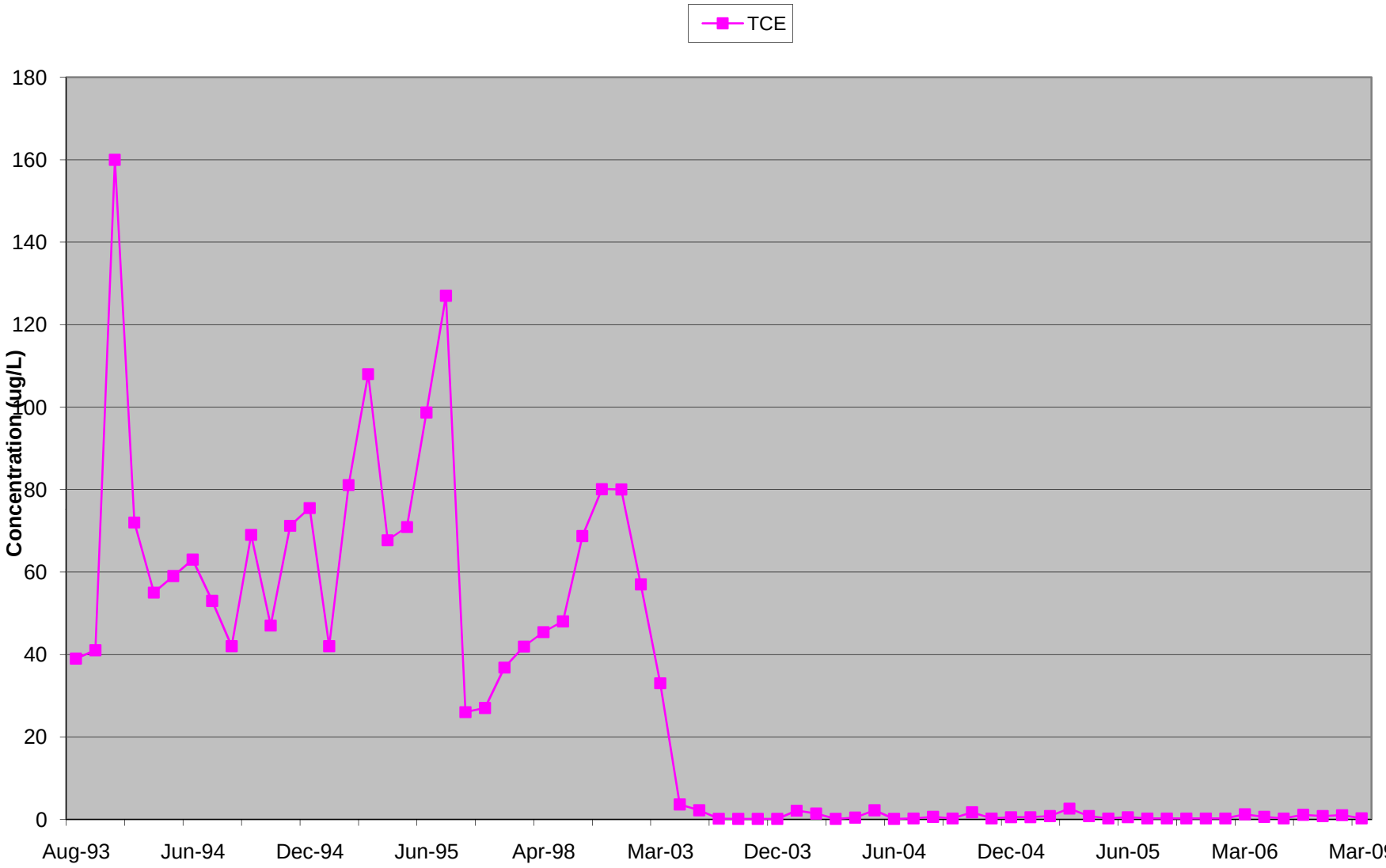
APPENDIX D

Plots of TCE Concentration Versus Time for Stream Locations

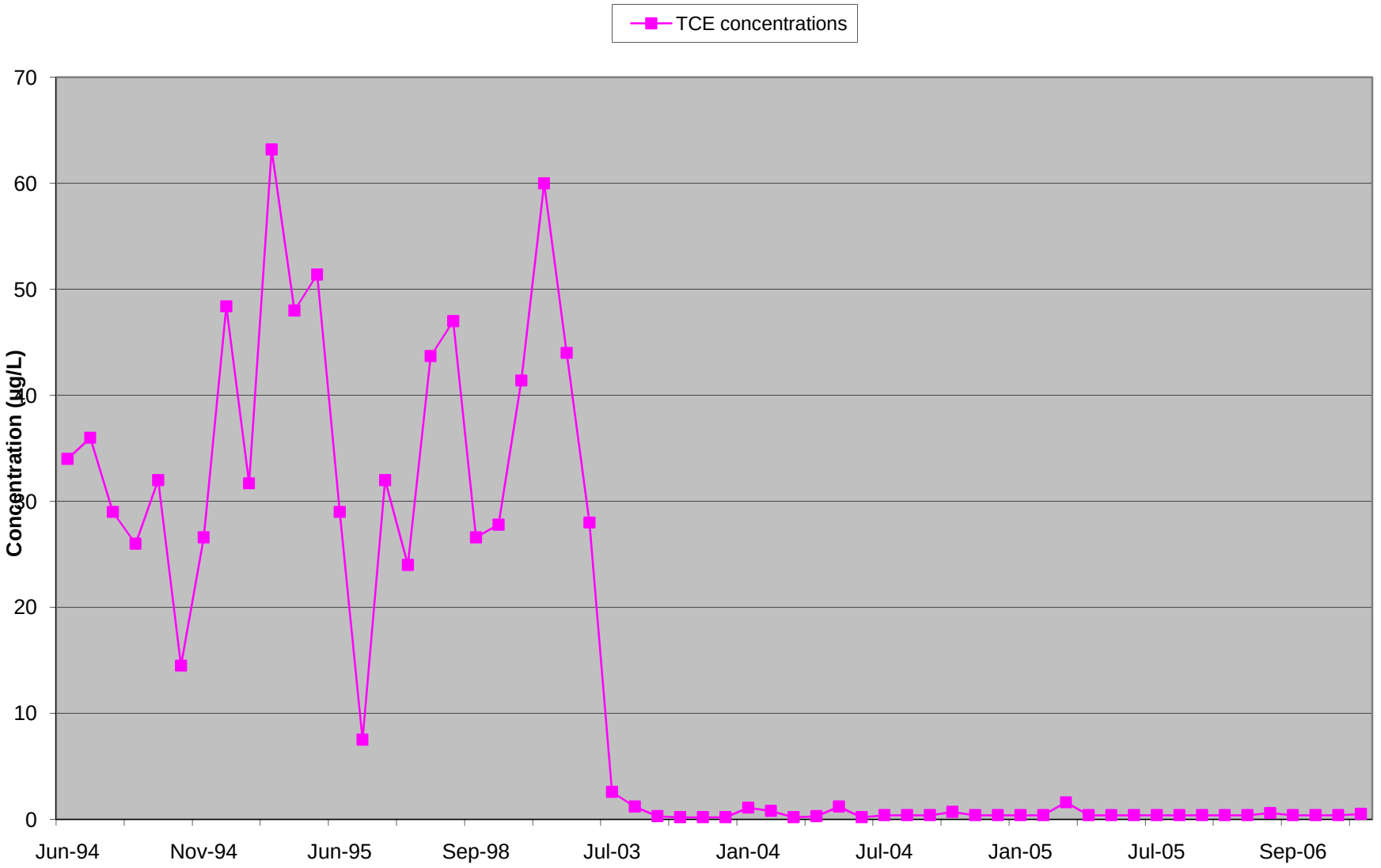
Historical TCE concentrations at Stream Location SW-1



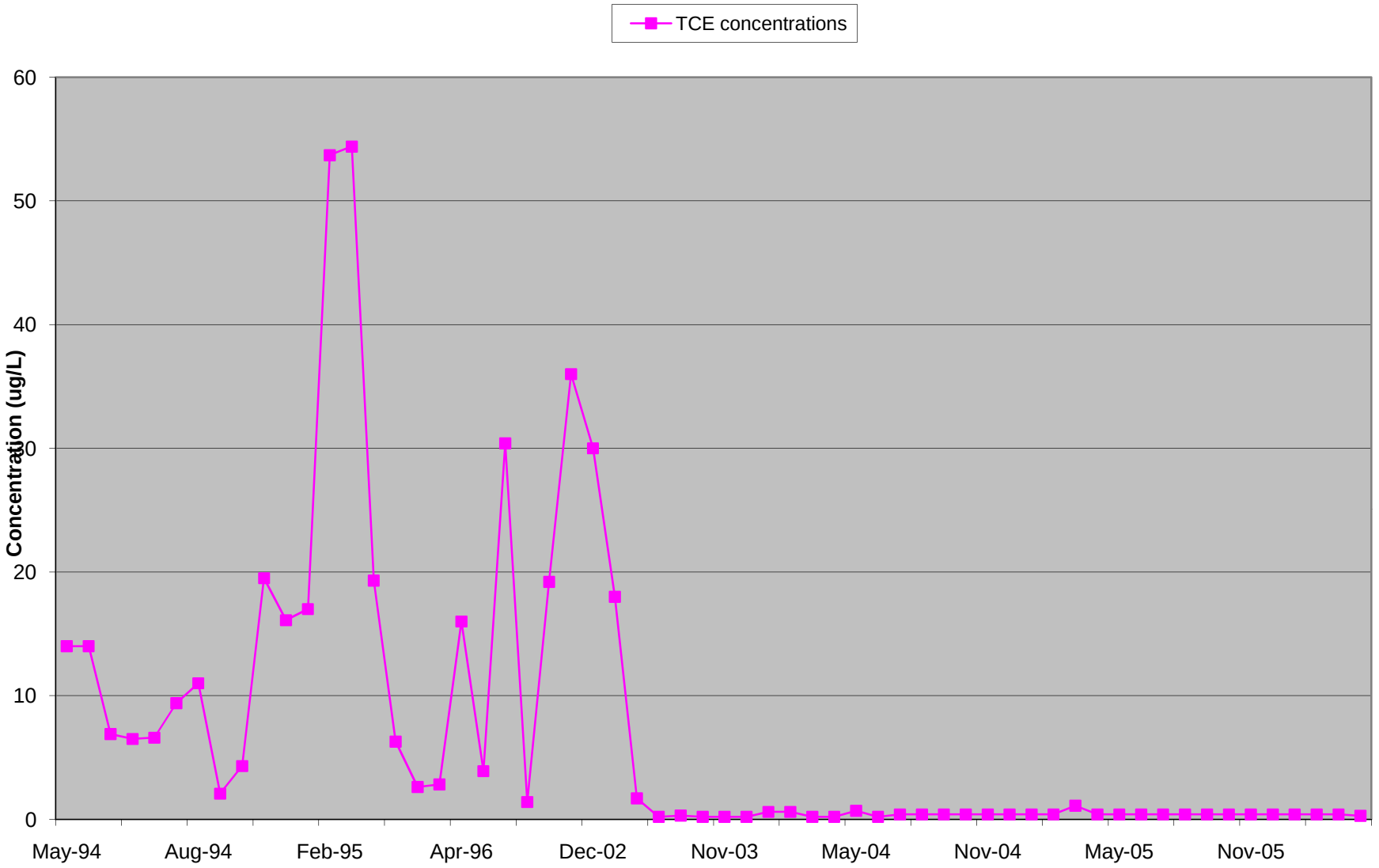
Historical TCE concentrations at Stream Location SW-2



Historical TCE concentrations at Stream Location SW-3



Historical TCE concentrations at Stream Location SW-4



APPENDIX E

Statistical Analysis for Vapor Intrusion Contaminants of Potential Concern

Johnson and Ettinger Modeling for Potential for Vapor Intrusion Conditions

APPENDIX E

Statistical Analysis for Vapor Intrusion Contaminants of Potential Concern

Johnson and Ettinger Modeling for Potential for Vapor Intrusion Conditions

Ground Water Summary Statistics

Chemical	Minimum Concentration/ Qualifier		Maximum Concentration/ Qualifier		Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Screening Toxicity Value (NJVIG)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Benzene	--		--		ug/L		--	0.18 - 2.4			1	NJGWQC		
Bromodichloromethane	--		--		ug/L		--	0.14 - 2.5			1	NJGWQC		
Bromoform	--		--		ug/L		--	0.2 - 2.1			4	NJGWQC		
Bromomethane	--		--		ug/L		--	0.4 - 4.4			10	NJGWQC		
Carbon Tetrachloride	--		--		ug/L		--	0.3 - 3.4			1	NJGWQC		
Chlorobenzene	--		--		ug/L		--	0.13 - 2.5			50	NJGWQC		
Chloroethane	--		--		ug/L		--	0.33 - 4.3			--			
2-Chloroethyl Vinyl Ether	--		--		ug/L		--	0.2 - 2.5			--			
Chloroform	0.3		1.8		ug/L		67%	0.19 - 2	1.8	70	70	NJGWQC	N	BSL
Chloromethane	--		--		ug/L		--	0.4 - 4.4			--			
Dibromochloromethane	--		--		ug/L		--	0.18 - 2.7			1	NJGWQC		
1,1-Dichloroethane	--		--		ug/L		--	0.3 - 2.6			50	NJGWQC		
1,2-Dichloroethane	--		--		ug/L		--	0.3 - 2.7			2	NJGWQC		
1,1-Dichloroethene	--		--		ug/L		--	0.5 - 4.6			1	NJGWQC		
cis-1,2-Dichloroethene	0.98		7.8		ug/L		67%	0.3 - 0.56	7.8	350	70	NJGWQC	N	BSL
trans-1,2-Dichloroethene	--		--		ug/L		--	0.38 - 3.9			100	NJGWQC		
1,2-Dichloropropane	--		--		ug/L		--	0.4 - 4.9			1	NJGWQC		
cis-1,3-Dichloropropene	--		--		ug/L		--	0.1 - 1.3			--			
trans-1,3-Dichloropropene	--		--		ug/L		--	0.16 - 1.6			--			
Ethylbenzene	--		--		ug/L		--	0.23 - 4.1			700	NJGWQC		
Methylene Chloride	--		--		ug/L		--	0.19 - 4			3	NJGWQC		
Tetrachloroethene	4.5		4.8		ug/L		33%	0.28 - 0.4	4.8	1	1	NJGWQC	Y	ASL
1,1,2,2-Tetrachloroethane	--		--		ug/L		--	0.26 - 3.5			1	NJGWQC		
Toluene	--		--		ug/L		--	0.3 - 3			600	NJGWQC		
1,1,1-Trichloroethane	--		--		ug/L		--	0.24 - 3.8			30	NJGWQC		
1,1,2-Trichloroethane	--		--		ug/L		--	0.2 - 2.2			3	NJGWQC		
Trichloroethene	21.6		1000		ug/L		100%	--	1000	1	1	NJGWQC	Y	ASL
Trichlorofluoromethane	--		--		ug/L		--	0.4 - 3.7			2000	NJGWQC		
Vinyl Chloride	--		--		ug/L		--	0.2 - 2.4			1	NJGWQC		
Xylene (Total)	1.5		1.5		ug/L		17%	0.25 - 4	1.5	7000	1000	NJGWQC	N	BSL

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

Chemical	Indoor exposure groundwater conc., carcinogen (µg/L)	Indoor exposure groundwater conc., noncarcinogen (µg/L)	Risk-based indoor exposure groundwater conc., (µg/L)	Pure component water solubility, S (µg/L)	Final indoor exposure groundwater conc., (µg/L)
Trichloroethylene	NA	NA	NA	1.47E+06	NA
Tetrachloroethylene	NA	NA	NA	2.00E+05	NA

INCREMENTAL RISK CALCULATIONS:

	Adult		Child	
	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
Trichloroethylene	**1E-03**	6.8E-01	**3E-04**	6.8E-01
Tetrachloroethylene	4E-07	3.2E-04	1E-07	3.2E-04
Total	**1E-03**	6.8E-01	**3E-04**	6.8E-01

MESSAGE SUMMARY BELOW:

MESSAGE: Risk/HQ or risk-based groundwater concentration is based on a route-to-route extrapolation.

END

RESULTS SHEET

RISK-BASED GROUNDWATER CONCENTRATION CALCULATIONS:

INCREMENTAL RISK CALCULATIONS:

Chemical	Indoor exposure groundwater conc., carcinogen (µg/L)	Indoor exposure groundwater conc., noncarcinogen (µg/L)	Risk-based indoor exposure groundwater conc., (µg/L)	Pure component water solubility, S (µg/L)	Final indoor exposure groundwater conc., (µg/L)	Adult: Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Adult: Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	Child: Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Child: Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
Trichloroethylene	NA	NA	NA	1.47E+06	NA	**7E-04**	4.8E-01	**2E-04**	4.8E-01
Tetrachloroethylene	NA	NA	NA	2.00E+05	NA	3E-07	2.3E-04	7E-08	2.3E-04
					Total	**7E-04**	4.8E-01	**2E-04**	4.8E-01

MESSAGE SUMMARY BELOW:

MESSAGE: Risk/HQ or risk-based groundwater concentration is based on a route-to-route extrapolation.

END