

October 5, 2005

REMEDIAL ACTION COMPLETION REPORT

**Former Duralab Equipment Corporation Property
Brooklyn, New York**

Prepared for

**FEDERAL EXPRESS CORPORATION
3620 Hacks Cross Road
Building B, 2nd Floor
Memphis, Tennessee 38125**

ROUX ASSOCIATES, INC.

Environmental Consulting & Management



209 Shafter Street, Islandia, New York 11749 ♦ 631-232-2600

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Report Organization.....	2
2.0 ENVIRONMENTAL SETTING.....	3
2.1 Site Description.....	3
2.2 History of Site Operations	3
2.3 Site Hydrogeology	3
3.0 PREVIOUS INVESTIGATIONS.....	5
3.1 Phase I ESA	5
3.2 Phase II ESA.....	6
3.2.1 Phase II ESA Quality Results	6
3.3 Additional Subsurface Investigation – Phase II ESA	6
3.3.1 Additional Phase II ESA Quality Results	7
3.4 Pre-Design Investigation.....	7
3.4.1 Pre-Design Investigation Findings.....	7
4.0 SITE REMEDIATION GOALS	9
5.0 SUMMARY OF REMEDIAL ACTION	10
5.1 Remediation System Design and Installation	10
5.2 System Start-up, Operation, Maintenance and Shutdown	11
6.0 GROUNDWATER AND SOIL COMPLIANCE.....	13
6.1 Groundwater Compliance	13
6.1.1 Groundwater Sampling Methodology.....	13
6.1.2 Groundwater Sampling Results for Onsite Wells.....	14
6.1.3 Groundwater Sampling Results for Offsite Wells	16
6.2 Soil Compliance.....	16
6.2.1 Soil Sampling Methodology	16
6.2.2 Soil Sampling Results	17
7.0 RISK ASSESSMENT	18
7.1 Onsite Exposure Conclusions	18
7.2 Offsite Exposure Conclusions.....	19
7.3 Determination of Risk Based Cleanup Level.....	20
8.0 LIMITED SOIL GAS SURVEY	21
8.1 Initial and Supplemental Soil Gas Survey	21
8.1.1 Initial and Supplemental Soil Gas Survey Methodology.....	22
8.1.2 Initial and Supplemental Soil Gas Survey Results	22
8.2 Final Soil Gas Survey	23
8.2.1 Final Soil Gas Survey Methodology.....	24
8.2.2 Final Soil Gas Survey Results.....	24
9.0 OPERATION, MAINTENANCE AND MONITORING.....	25
9.1 Groundwater Monitoring	25
9.2 Sampling Requirements	25
9.3 Post-Closure Requirements.....	26

TABLE OF CONTENTS

(Continued)

9.4 Building Use Restrictions	26
9.5 Declaration of Covenants and Restrictions.....	27
9.6 Regulatory Reporting Requirements.....	27
9.7 Amendment	28
10.0 ENGINEER'S CERTIFICATION.....	29
11.0 REFERENCES	30

TABLES

1. Historical Summary of Volatile Organic Compounds Detected in On-site Groundwater
2. Historical Summary of Volatile Organic Compounds Detected in Off-site Groundwater
3. Summary of Volatile Organic Compounds Detected in Soil
4. Soil Gas Survey Results

FIGURES

1. Site Location Map
2. Site Plan
3. Pre-Remediation Trichloroethene Concentrations in Groundwater
4. SVE and AS System Well and Equipment Layout
5. Cumulative Volatile Organic Compound Removal Since System Start-up
6. Historic Groundwater Trends
7. Trichloroethene Concentrations Detected in Soil Prior to System Start-up and After System Shutdown
8. Soil Gas Survey Sampling Locations

APPENDICES

- A. January 24, 2004 Permanent Shutdown Approval from the NYSDEC.
- B. January 31, 2005 Approval for Post-Remediation O&M Plan Requirements.
- C. March 21, 2001 Temporary Shutdown Approval from the NYSDEC.
- D. December 3, 2001 NYSDEC Comments on Roux Associates, Inc. July 23, 2001 Risk Assessment.

1.0 INTRODUCTION

On behalf of the Federal Express Corporation (FedEx) and CARGEX Brooklyn Limited Partnership (CARGEX) (collectively referred to as the Volunteers), Roux Associates, Inc. and Remedial Engineering, P.C. (collectively referred to as Roux Associates) have prepared this document entitled, "Remedial Action Completion Report" (RACR) to document the remedial activities performed at the Former Duralab Equipment Corporation (Duralab) property (Site) in Brooklyn, New York (Figure 1). The primary purpose of this report is to document the remedial and related activities performed at the Site since system start-up on February 2, 1999.

Remedial activities included the construction, start-up, operation, maintenance, and monitoring (OM&M) of the onsite soil vapor extraction/air sparge (SVE/AS) system, which was designed to address the soil and groundwater contamination at the Site. Related activities included the routine collection and analysis of onsite and offsite groundwater samples, collection and analysis of post-remediation soil samples, performance of a focused quantitative Risk Assessment (RA) and performance of a limited soil gas survey. Each activity, where applicable, was performed in accordance with the requirements of the Voluntary Cleanup Agreement (VCA, W2-0835-98-10) effective December 14, 1998 (NYSDEC, 1998), the April 21, 1998 SVE/AS Remedial Action Work Plan (RAWP) (Roux Associates, 1998a), the September 22, 1998 SVE/AS Performance Analysis and Design Modification Plan (PADMP) (Roux Associates, 1998b) and follow-up requests (i.e., collection and analysis of additional onsite and offsite groundwater samples and performance of a limited soil gas survey) from the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH).

Permanent shutdown of the SVE/AS system was conditionally provided by the NYSDEC and the NYSDOH on January 29, 2004 (NYSDEC, 2004) in a letter that is provided in Appendix A. Conditions of this approval, along with the Volunteer's response to these conditions, are discussed in Section 9 of this report. In addition, this report summarizes the post-remediation OM&M requirements for the Site, as preliminarily approved by the NYSDEC and the NYSDOH per the draft letter provided by the NYSDEC on January 31, 2005 (NYSDEC, 2005, Appendix B).

1.1 Report Organization

This RACR has been divided into the following twelve sections with a brief description of each provided below.

- Section 1.0: Introduction
This section introduces the reader to what this report is about and provides an overview of what is contained in the report.
- Section 2.0: Environmental Setting
This section provides a description of the Site and its operational history.
- Section 3.0: Previous Investigations
This section summarizes the methodology and findings for previous investigations completed at the Site by Roux Associates and other parties.
- Section 4.0: Site Remedial Goals
This section provides the remedial goals for addressing groundwater and soil contamination at the Site.
- Section 5.0: Summary of Remedial Action
This section discusses the design, construction, start-up, operation and maintenance and shutdown of the SVE/AS System.
- Section 6.0: Performance Monitoring Results
This section discusses the analytical results of groundwater and soil compliance samples collected to monitor and confirm that Site remedial goals were being achieved.
- Section 7.0: Focused Quantitative RA
This section provides an analysis of potential health-based risks associated with contaminated soil and groundwater at the Site.
- Section 8.0: Limited Soil Gas Survey
This section summarizes the methodology and findings of the limited soil gas survey performed at the request of the NYSDOH.
- Section 9.0: Post-Remedial OM&M Plan
This section details the requirements for the long-term post-remediation OM&M plan.
- Section 10.0: Engineer's Certification
This section provides the Engineer's certification that the remedial action was performed in accordance with NYSDEC and NYSDOH requirements.
- Section 11.0: References

2.0 ENVIRONMENTAL SETTING

This section includes a description of the Site and its operational history and the Site's hydrogeology.

2.1 Site Description

The former Duralab property is located in the Canarsie Section of Brooklyn, New York (Figure 1). The property is approximately 8.5 acres and contains a 165,500 square foot building. The building was built in 1971 with an addition constructed in 1986. The former Duralab property is bordered by Farragut Road, East 108th Street, and a commercial building across East 105th Street to the south, east, and west, respectively, while the Long Island Railroad right of way borders the Site to the north (Figure 2). The surrounding area is used for residential, industrial, and commercial use. The Site and surrounding area is flat-lying at an approximate elevation of 20 feet above mean sea level (msl).

2.2 History of Site Operations

The property is owned by the City of New York. It was leased by Duralab Equipment Corporation from 1971 to 1997 under a ground lease with the City of New York and was utilized as a cabinet manufacturing facility. A detailed description of the manufacturing processes and potential chemicals of concern associated with operation of the property during this period was provided in the Phase I Environmental Site Assessment (ESA), which is discussed in Section 3.1. In 1997, Duralab ceased operations and the leasehold estate under the ground lease was purchased by CARGEX. In 1998, the property was subleased and redeveloped by FedEx as a major distribution terminal. Pursuant to its sublease agreement with CARGEX, FedEx agreed to remediate certain environmental conditions at the Site through participation in the New York State Voluntary Cleanup Program (VCP). As discussed in Section 1.0, FedEx has completed remediation of the Site in accordance with the requirements of the VCP and is currently in the post-remediation groundwater monitoring phase.

2.3 Site Hydrogeology

The Site overburden consists of fill material over glacial outwash deposits. Fill material extends to a depth of approximately 10 feet below ground surface (bgs) and consists of medium to coarse sand and gravel with brick and concrete fragments. Glacial outwash deposits consist of fine to

medium sand with little silt. These deposits extend to a depth of approximately 175 feet bgs and reportedly become coarser with depth. Localized clay layers may exist in the outwash deposits. The outwash deposits are reportedly underlain by a major clay confining layer of the Raritan Formation at a depth of approximately 175 feet bgs. Bedrock occurs at an approximate depth of 400 feet bgs.

The regional water table was encountered at approximately 10 feet bgs in the glacial outwash aquifer. The regional direction of flow is to the southeast towards Fresh Creek Basin and Jamaica Bay.

3.0 PREVIOUS INVESTIGATIONS

This section provides a summary of all previous investigations conducted at the Site prior to start-up of the SVE/AS System. These investigations are listed below with references to the corresponding reports in parentheses.

- Phase I ESA (Law Environmental Consultants, Inc. [LAW], 1997a);
- Phase II ESA (LAW, 1997b);
- Additional Phase II ESA (LAW, 1997c); and
- Pre-Design Investigation (Roux Associates, 1998c through 1998e).

Details for these investigations are discussed in the sections below in the order given above (i.e., chronologically).

3.1 Phase I ESA

In May 1997, LAW conducted a Phase I ESA to evaluate the Site for potential environmental concerns. The scope and findings of the Phase I ESA were provided in the May 20, 1997 report titled "Report Of Phase I Environmental Site Assessment" (LAW, 1997a). As part of the Phase I ESA, LAW performed a review of available regulatory information, a study of the previous land use and development, and a reconnaissance of the Site and surrounding area. The findings of the Phase I ESA are provided below:

- An empty 1,000 gallon trichloroethene (TCE) aboveground storage tank (AST) was present within the building (Figure 2);
- The TCE was used in an onsite vapor degreaser to remove oils from cabinets in preparation for painting;
- The spent TCE would collect in a concrete sump of the vapor degreaser and then be pumped through a still for recycling or reuse in the vapor degreaser;
- No TCE was observed in the still or degreaser during the Site visit;
- During the Site visit, paints, TCE, motor oil, grease, and various maintenance material (e.g. lubricants) were observed within the former production areas of the building. These materials were placed in containers that were observed on the concrete floor. Staining of the concrete was not observed; and
- A regulatory database search indicated that the Site was listed on the Resource Conservation and Recovery Information System List as a large quantity generator of

hazardous waste and on the Chemical Bulk Storage List as using one 1,000 gallon AST for the storage of TCE.

Based on the findings of the Phase I ESA, LAW recommended that an assessment of the potential impact to soil and groundwater be conducted in the vicinity of the 1,000-gallon TCE AST.

3.2 Phase II ESA

In May 1997, LAW conducted a Phase II ESA at the Site based on the findings of the Phase I ESA. The purpose of this ESA was to evaluate soil and groundwater quality in the vicinity of the TCE AST. The scope and findings of the Phase II ESA were provided in the June 10, 1997 report titled "Report Of Phase II Environmental Site Assessment" (LAW, 1997b). A summary of the findings from the Phase II ESA is provided below.

3.2.1 Phase II ESA Quality Results

The soil quality results indicated that only two VOCs (TCE and cis-1,2-dichloroethene [cis-1,2-DCE]) were detected. The TCE ranged from not detected to 326 micrograms per kilogram ($\mu\text{g/kg}$), while cis-1,2-DCE ranged from not detected to 58.2 $\mu\text{g/kg}$. The concentration of TCE detected was significantly below its NYSDEC Recommended Soil Cleanup Objectives (RSCO) of 700 $\mu\text{g/kg}$. It was noted that there is no NYSDEC RSCO for cis-1,2-DCE.

The groundwater quality results also indicated that only two VOCs (i.e., TCE and cis-1,2-DCE) were detected, which was consistent with the soil quality results. The TCE ranged from 98.1 to 4,090 micrograms per liter ($\mu\text{g/L}$), while cis-1,2-DCE ranged from 30.1 to 2,120 $\mu\text{g/L}$.

3.3 Additional Subsurface Investigation – Phase II ESA

In June 1997, LAW conducted an additional Phase II ESA at the Site based on the results of the initial Phase II ESA. The purpose of this ESA was to further define the extent of VOCs in soil and groundwater onsite and to evaluate the potential for offsite migration. The scope and results of the additional Phase II ESA were provided in the July 15, 1997 report titled "Report Of Additional Subsurface Investigation – Phase II Environmental Site Assessment" (LAW, 1997c). A summary of the findings from the additional Phase II ESA is provided below.

3.3.1 Additional Phase II ESA Quality Results

The groundwater quality results indicated that four VOCs (i.e., TCE, cis-1,2-DCE, trans-1,2-dichloroethene [trans-1,2-DCE], tetrachloroethene [PCE]) were detected at the Site. The TCE ranged from not detected to 1,490 µg/L, while cis-1,2-dichloroethene ranged from not detected to 1,010 µg/L. The two remaining VOCs detected (i.e., trans-1,2-DCE and PCE) were detected only in monitoring well LMW-25. The trans-1,2-DCE was detected at 9.0 µg/L, while the PCE was detected at 6.0 µg/L.

3.4 Pre-Design Investigation

In January 1998, Roux Associates was retained by FedEx to review the previous ESAs and to design and construct a remedial system to remove the VOCs detected in the groundwater. To support the design of the remedial system, Roux Associates performed a soil and groundwater investigation to fill in some of the data gaps from the previous investigations. The Pre-Design Investigation (PDI) was initiated in January 1998 and completed in February 1998. The scope and results of the PDI were provided in a series of three progress reports provided to the NYSDEC in January and February 1998 (Roux Associates, 1998c through 1998e). A summary of the findings from the PDI is provided below.

3.4.1 Pre-Design Investigation Findings

The results from the PDI are summarized as follows:

- Soil from the boring samples were found to be comprised of fine to medium sand with minor amounts of silt and gravel. Groundwater was encountered at approximately 10 ft bgs and was determined to flow in a southeast direction towards Fresh Creek Basin.
- The soil quality results indicated that the soil at soil boring SB-3 adjacent to the floor drain slightly exceeded the NYSDEC RSCO for TCE. No other VOCs exceeded the NYSDEC RSCOs in any of the remaining soil samples collected at the Site.
- The groundwater quality results indicated that an area approximately 200 ft by 200 ft contained TCE at concentrations that exceed 100 µg/L. The highest groundwater concentration was 240,000 µg/L at monitoring well MW-2.
- The results of the floor drain tracing did not identify where the drain pipe terminated due to interference with metal reinforcing bars within the concrete slab.
- Responses to the FOIA requests indicated that there were no records of existing USTs at the Site.

- The wastewater characterization results indicated that the soil generated during the investigation was non-hazardous and the purge water was hazardous.
- The groundwater results approximately 20 ft east of MW-1 indicated that VOCs have migrated slightly beyond MW-1.
- The groundwater results adjacent to monitoring well MW-2 indicated that TCE concentrations decreased several orders of magnitude with depth.
- The geology in this area of Brooklyn typically consists of fill materials (approximately 10 ft thick) overlaying less permeable material such as peat or clay that grades into sand and gravel. Based on the observations at MW-2 and existing knowledge of the geology of the area, it is likely that the majority of the groundwater contamination is present in the top ten feet of groundwater.

4.0 SITE REMEDIATION GOALS

The remedial goals for the Site were detailed in the PADMP and are also listed below:

- To remediate the area of contaminated groundwater delineated in Figure 3, if Federal Maximum Contaminant Levels (MCLs) are not achieved to levels determined during the performance of a focused quantitative RA; and
- To mitigate offsite migration of TCE contamination.

The remedial program was intended to eliminate any potential ongoing TCE sources and cause mass-reduction of TCE in groundwater.

Prior to the completion of these remedial efforts, a focused quantitative RA, as discussed in Section 7.0, was performed since the Federal MCL for TCE was not achieved during the two years of operation and maintenance of the SVE/AS system. The RA determined that if residual TCE concentrations were below 1,000 µg/L, these levels would not pose a threat to human health. It was also determined that natural attenuation would be effective in remediation of residual, dissolved TCE in groundwater.

A summary of the remedial action performed to achieve the Site remediation goals listed above is provided in Section 5.0.

5.0 SUMMARY OF REMEDIAL ACTION

The remedial action completed at the Former Duralab Property included the design, installation, start-up, operation, maintenance, and shutdown of a SVE/AS system to remediate VOCs in soil and groundwater as discussed below.

The SVE system was utilized to remove the high concentrations of TCE from the impacted soil within the localized hot spot area. This process removes volatile organic vapors from the subsurface soil by drawing air through the contaminated soil.

The AS system was utilized to enhance removal of organics from the impacted soil and groundwater. AS operates as a flow of pressurized atmospheric air and is applied to air sparge wells to direct a flow of air into the saturated zone. The air is then forced through the groundwater and the VOCs volatilize into the air stream. The air stream then migrates upward into the unsaturated zone, stripping organics from the soil and, in turn, is recovered by the SVE well network via an induced low pressure zone created by the SVE system.

5.1 Remediation System Design and Installation

The SVE/AS design was based on the results of a SVE/AS pilot study conducted on July 28, 1998. The pilot study included installation of SVE/AS test wells and monitoring points, baseline monitoring, and performance of an SVE/AS pilot test. Two pilot wells (one SVE and one AS), along with four monitoring points, were constructed to conduct and evaluate the effectiveness of the pilot test. The results of the pilot test were submitted in the PADMP, along with the final SVE/AS design. Based on the results of the pilot study, the full-scale SVE/AS system consisted of a total of eight SVE wells and 17 AS wells. The locations of the wells are shown on Figure 4.

Due to the off-gas concentrations observed during the SVE portion of the pilot study test, off-gas controls consisting of two 55-gallon air phase granular activated carbon (GAC) units were incorporated into the final design. These air phase GAC units were installed, in series, on the effluent side of the SVE blower to treat the off-gas prior to discharge to the atmosphere.

5.2 System Start-up, Operation, Maintenance and Shutdown

The SVE/AS system began operation at the Site on February 2, 1999. In May 2000, the NYSDEC approved a modification from a continuous mode of operation to a pulsed mode. Based on an ongoing review of influent SVE concentrations and flow rates during the continuous and pulse modes of operation (February 1999 to April 2001), it was determined that a total of approximately 210 pounds of VOCs had been removed from groundwater since start-up (Figure 5). However, it was noted that during the last year of operation (May 2000 to April 2001), which is approximately 44 percent of the operating duration, only 10.58 pounds of TCE had been removed from the groundwater. This total only represented approximately 5 percent of the total mass removed since system start-up.

Because the rate of TCE removal had reduced significantly, Roux Associates requested approval from the NYSDEC for the temporary shutdown of the SVE/AS system on January 26, 2001 (Roux Associates, 2001a). On March 21, 2001, the NYSDEC formally approved temporary shutdown of the SVE/AS system in a letter provided in Appendix C (NYSDEC, 2001).

Based on the results from monitoring activities completed during the post-temporary shutdown period, including groundwater sampling and a limited soil gas survey, the NYSDEC requested that FedEx restart the SVE/AS in a pulsed mode for a three month duration to determine if groundwater and soil gas quality would improve significantly during this limited run of operation for the SVE/AS system. The SVE system was restarted on December 18, 2002 and remained in a pulsed mode of operation for the three month duration. Ultimately, permanent shutdown of the system was requested on May 28, 2003 (Roux Associates, 2003) and was granted when no significant improvements in groundwater and soil gas quality was observed after the three month period concluded.

On January 29, 2004 the NYSDEC provided formal approval (NYSDEC 2004) to permanently shut down the SVE/AS, in a letter provided in Appendix A, based on the following:

- compliance sampling performed on groundwater and soil as discussed in Section 6.0,
- the performance of a limited soil gas survey as discussed in Section 8.0, which was performed to support the assumptions of the RA, completed by Roux Associates, Inc. in 2001 and further discussed in Section 7.0; and

- the implementation of Institutional Controls consisting of deed restrictions on groundwater usage and soil management during any future construction activity.

6.0 GROUNDWATER AND SOIL COMPLIANCE

In accordance with the PADMP, performance monitoring for TCE in groundwater and soil was required to support any request for permanent shutdown. The TCE results for soil and groundwater are discussed below.

6.1 Groundwater Compliance

There were eleven onsite monitoring wells (MW-1, MW-2, LMW-11, LMW-12, LMW-13, LMW-18, LMW-21, LMW-22, LMW-25, LMW-27, and LMW-29) and two offsite monitoring wells (MWO-1 and MWO-2) that were sampled periodically to monitor the performance of the SVE/AS system. Please note, all onsite monitoring wells, except LMW-17, within the pre-startup limits of contamination (Figure 3) have been sampled since the SVE/AS was started up. In addition, these wells, along with LMW-18, LMW-21, LMW-27, and LMW-29, were sampled as part of the post-temporary shutdown monitoring and permanent shutdown monitoring programs as requested by the NYSDEC. After the SVE/AS was restarted on December 18, 2002, a groundwater sample was collected from MW-2 to monitor the performance of the SVE/AS System.

Groundwater samples collected from the monitoring wells were analyzed for VOCs. The locations of the monitoring wells are provided in Figure 3. A comparison of data from wells sampled prior to remedial activities with current analytical results is also presented in Figure 6. This figure shows the highest historical concentration of TCE in each well sampled and the results of the most recent analysis. In addition, a historical summary of sampling data collected from all onsite and offsite monitoring wells are provided in Tables 1 and 2, respectively, including the most recent sampling results from monitoring well MW-2. The following is a summary of the sampling methodology and results for the onsite and offsite monitoring wells.

6.1.1 Groundwater Sampling Methodology

Monitoring wells were sampled in accordance with NYSDEC guidelines as described below. Samples collected from the monitoring wells were analyzed for TCE and its daughter products [i.e., cis-1,2-DCE and vinyl chloride [VC]] per method 95-4. All analyses were performed by a certified laboratory.

Sample containers were pre-labeled before sample collection. The labels included the sample number, parameter sampled, date, time, sampler's initials, and the Site name. A Chain of Custody (COC) form was maintained as the record of possession for the sample.

Three purge volumes were removed from each monitoring well prior to sampling. The purged groundwater were removed using disposable bailers. After each well had been purged, disposable gloves and bailers were used to collect each sample and to place it in the sample containers. After the analytical samples were collected, the sample bottles were packed in coolers with ice for shipment to the laboratory.

6.1.2 Groundwater Sampling Results for Onsite Wells

A summary of historic trends of groundwater for TCE in onsite wells is provided below:

- MW-1: this monitoring well is located upgradient of the former vapor degreaser pit at the Site. Prior to system start up, TCE in groundwater at this well was detected at a concentration of 500 µg/L (January 1998). However, concentrations of TCE in groundwater have continually decreased in MW-1 since system start-up. The results of the post-shutdown sampling rounds indicate the concentrations of TCE in MW-1 has decreased to non-detect levels.
- MW-2: this monitoring well is located in the immediate vicinity of the former source area at the Site. The highest concentration of TCE in groundwater at MW-2 was found to be 240,000 µg/L (January 1998). The most recent result (350 µg/L on June 29, 2005) is consistent with the previous permanent shutdown sampling rounds and is significantly below the highest concentration of 240,000 µg/L.
- LMW-11: this monitoring well is located west of the source area. The highest concentration of TCE (630 µg/L) was detected during the October 1999 sampling round. The results of the most recent permanent shutdown round (38 µg/L on June 10, 2004) were consistent with the previous permanent shutdown sampling rounds (140 µg/L on October 22, 2001 and 40 µg/L on January 22, 2002) and below the highest concentration of 630 µg/L.
- LMW-12: this monitoring well is located in the vicinity of the former source area at the Site. Since start-up of the SVE/AS system, concentrations of TCE in groundwater have continually decreased in LMW-12. The highest concentration of TCE (870 µg/L) was detected during the September 1999 sampling round. The results of the most recent permanent shutdown round (20 µg/L on June 10, 2004) were consistent with the previous permanent shutdown sampling rounds (42 µg/L on October 11, 2001 and 27 µg/L on January 22, 2002) and significantly below the highest concentration of 870 µg/L.
- LMW-13: this monitoring well is located in the vicinity of the former source area at the site. Since start up of the SVE/AS system, concentrations of TCE in groundwater have

continually decreased in LMW-13. The highest concentration of TCE (500 µg/L) was detected during the August 1999 sampling round. The results of the most recent permanent shutdown round (120 µg/L on June 10, 2004) were consistent with the initial permanent shutdown of 160 µg/L detected on October 11, 2001.

- LMW-18: this monitoring well is located on the southern edge of the Site, outside the delineated plume. LMW-18 was not sampled prior to system start-up. The results of the most recent permanent shutdown round indicate the concentrations of TCE in groundwater for LMW-18 is non-detect. This concentration is lower than the initial permanent shutdown concentration of 0.8 µg/L detected on October 11, 2001 and lower than the NYSDEC Ambient Water Quality Standards and Guidance (AWQSGs) of 5 µg/L for TCE.
- LMW-21: this monitoring well is located on the southeastern portion of the Site, outside the delineated plume. Prior to start-up, the concentration of TCE in LMW-21 was detected at 3 µg/L, lower than the NYSDEC AWQSGs of 5 µg/L for TCE. Concentrations of TCE in groundwater have consistently remained at non-detect since start-up of the SVE/AS system.
- LMW-22: this monitoring well is located on the eastern edge of the downgradient side of the former source area of the Site. LMW-22 was not sampled prior to system start-up. However, during the June 1999 sampling round, the concentration of TCE was detected at a concentration of 2 µg/L. The results of the most recent permanent shutdown round on June 10, 2004 indicate the concentration of TCE in LMW-22 is 6.1 µg/L, which is slightly above NYSDEC AWQSGs, but is also consistent with the initial permanent shutdown concentrations of 11.4 detected on October 11, 2001 and 33 µg/L on January 22, 2002.
- LMW-25: this monitoring well is located downgradient of the former source area of the Site. The highest concentration of TCE (6,700 µg/L) was detected during the December 1999 sampling round. The results of the most recent permanent shutdown round (380 µg/L on June 29, 2005) is lower than the pre-startup concentration of 1,300 µg/L, and is significantly lower than the highest concentration of 6,700 µg/L.
- LMW-27: this monitoring well is located on the northeastern side of the site, outside the delineated plume. The concentrations of TCE in groundwater prior to system start-up was 16 µg/L. The results of the most recent permanent shutdown round (16 µg/L on June 10, 2004) indicate that TCE levels are consistent with pre-shutdown concentrations and previous sampling concentrations (10 µg/L on May 3, 2001, 11 µg/L on June 21, 2001, and 13.4 µg/L on October 11, 2001).
- LMW-29: this monitoring well is located on the northern portion of the site. Prior to start-up, the concentration of TCE in LMW-29 was detected at 2 µg/L, lower than the NYSDEC AWQSGs of 5 µg/L for TCE. The results of the most recent permanent shutdown round (September 30, 2002) indicate the concentration of TCE in LMW-29 is 0.8 µg/L.

6.1.3 Groundwater Sampling Results for Offsite Wells

A summary of historic trends of groundwater for TCE in offsite wells is provided below:

- MWO-1: this monitoring well is located downgradient from the former source area at the Site. Prior to system start-up, TCE in offsite groundwater at this well was detected at a concentration of 35 µg/L (August 1998). The results of the most recent permanent shutdown round (30 µg/L on June 29, 2005) was consistent with this pre-start up concentration indicating offsite migration of TCE has remained stabilized.
- MWO-2: this monitoring well is located downgradient from the former source area at the Site. The historical groundwater sampling analytical results at MWO-2 previously indicated no detections of TCE. The results of the most recent permanent shutdown round indicate the concentration of TCE in MWO-2 is 1 µg/L. This concentration is lower than the NYSDEC AWQSGs of 5 µg/L for TCE.

6.2 Soil Compliance

As requested by the NYSDEC, soil compliance sampling was conducted on June 22, 2001 for two soil borings (SB-3A and SB-6A) within the original source area. Analytical results received for these samples are included in Table 3, along with a historical summary of soil sampling data collected in the vicinity of the source area. As shown in Figure 7, soil in the vicinity of previous soil sampling locations SB-3 and SB-6 was sampled. The locations of these two borings were based on the presence of the highest concentrations of TCE detected in soil during the pre-startup soil investigation program performed in January 1998. Concentrations of TCE at SB-3 and SB-6 prior to remedial system start-up were 980 micrograms per kilogram (µg/kg) at the 4-6 feet below grade interval and 410 µg/kg at the 0-2 feet below grade interval, respectively.

6.2.1 Soil Sampling Methodology

Soil borings were completed using a Geoprobe™ direct push sampler. The soil borings were advanced at least 12 feet bgs into the water table. Soil samples were collected continuously and screened using a PID. At least one soil sample per boring was collected and analyzed for VOCs in accordance with NYSDEC Analytical Services Protocol (ASP) 95-4 (corresponding to the highest PID reading, visual observation, or the interval just above the water table, if no evidence of contamination was observed).

6.2.2 Soil Sampling Results

Results from the post-temporary shutdown sampling for SB-3A revealed TCE at a concentration of 38 µg/kg on June 22, 2001, which is significantly lower than the pre-startup concentration of 980 µg/kg. The soil sample was collected and analyzed at the 0-2 feet below grade interval for SB-3A based on the highest PID screening results from samples collected continuously from grade to the water table. Results from the sampling for SB-6A were non-detect for TCE, significantly lower than the pre-startup concentration of 410 µg/kg. The soil sample from sampling location SB-6A was collected and analyzed at the 2-4 feet below grade interval and also based on the highest PID screening results from samples collected continuously from grade to the water table. Analytical results from both soil samples (SB-3A and SB-6A) were significantly below the NYSDEC RSCO of 700 mg/kg for TCE.

7.0 RISK ASSESSMENT

In order to demonstrate that residual concentrations of VOCs in groundwater and soil, as discussed in Section 6.0, do not pose an unacceptable potential risk to human health to potential onsite and offsite receptors, a Risk Assessment (RA) for VOCs in Soil and Groundwater was performed. The RA was prepared by Roux Associates, on behalf of Federal Express and Cargex, and submitted to the NYSDEC and NYSDOH on July 23, 2001 (Roux Associates, 2001b). The NYSDOH provided comments on the RA in a letter dated December 3, 2001 to the NYSDEC (NYSDOH 2001), which is provided in Appendix D. Based on these comments, a limited soil gas survey was performed to support the “modeled” soil gas assumptions of the RA with “actual” field data. The results of the limited soil gas survey, discussed in Section 8.0, supported those assumptions.

The RA was prepared based on guidelines provided by the USEPA in, “Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part A) Interim Final” (RAGS) (USEPA, 1989). The conclusions were previously presented in the July 23, 2001 RA and are also summarized in following sections of this RACR with regard to onsite and offsite exposures from the chemicals of potential concern (i.e., TCE, *cis*-1,2-DCE, and VC) and the determination of a risk-based cleanup level for TCE (the chemical of potential concern with the highest potential risk).

7.1 Onsite Exposure Conclusions

As documented in the RA, a total of two onsite receptors were evaluated as follows:

- Facility employees (occupational scenario); and
- Construction workers (construction scenario).

Based on this evaluation, the presence of TCE, *cis*-1,2-DCE, and VC in groundwater and soil at the Site do not negatively impact indoor air with regard to either carcinogenic or noncarcinogenic health effects. Potential exposure to these VOCs via inhalation of vapors from groundwater should not present any risk of carcinogenic or noncarcinogenic health effects to occupational employees under the conservative exposure scenario conditions defined in the RA. Potential exposure to TCE and *cis*-1,2-DCE following the combined routes of exposure (i.e., inhalation and dermal absorption of groundwater and dermal absorption and ingestion of

soil) in the construction scenario also should not present any above-background risk of carcinogenic or noncarcinogenic health effects to construction workers.

It should be noted that, in addition to the use of conservative RA parameters such as the use of maximum observed concentrations, there are other site-specific factors that further contribute to the overestimation of risk reported here. For example, finite quantities of chemicals are present in the soil and groundwater at the Site. Chemical concentrations will tend to undergo attenuation over a period of years as a result of processes such as biodegradation. This is particularly true for TCE, cis-1,2-DCE, and VC because they are VOCs capable of rapid degradation through biological transformation (Fathepure *et al.*, 1995). Thus, over a period of years under natural conditions, the maximum observable concentrations of chemicals in the soil and groundwater will decrease. The RA did not take potential attenuation into account.

Another example is that the selection of receptors for the construction exposure scenario assumed that the same worker will be present at the Site during the entire period of construction and return to the same location containing maximum concentrations. However, it is more likely that construction activities will be conducted by a variety of workers from different crafts (i.e., sewer workers and electricians). Thus, it is unlikely that any one worker will be present at the Site during the entire construction period and results in the overestimation of the potential risk. In addition, the summation of the risks from soil and groundwater present an overestimation of the potential risk. Since the simultaneous exposure to groundwater and soil is limited, the construction worker will only be exposed to soil during much of the ground invasive activity modeled.

7.2 Offsite Exposure Conclusions

The exposure to potential offsite receptors (i.e., residents at the nearby apartment complex) was considered qualitatively, with the conclusion that quantitative modeling was unnecessary. All of the apartment buildings contain basements; however, there are no residents occupying or visiting these basement areas. Secondly, there are slotted metal grid windows that serve to ventilate the basement and, upon a site visit, it was observed that outward ventilation flow was rapid (possibly for the purpose of oil burner air exchange). Any vapors that could potentially migrate into these

basement areas would be mixed with large volumes of ambient air, thereby diluting the exposure concentrations that would ultimately be transported out of the building during ventilation.

Finally, there is minimal evidence demonstrating migration of VOCs offsite in groundwater at the concentrations used in the exposure assessment of the occupational worker, and no reason to suspect Site-related soil contamination exists beneath the apartment buildings. Soil concentrations were included in the modeling of the occupational employee at the Site and contributed to nearly 12 percent of the estimated air concentration for TCE and 15 percent of the estimated cis-1,2-DCE air concentration. Therefore, since it has been demonstrated that potential risk to the Site employee following exposure to TCE and cis-1,2-DCE under the defined conditions is below acceptable risk levels, it is likely that there is less of a risk to apartment residents following potential exposure to any chemicals that have migrated in groundwater from the Site. As a result of this qualitative analysis, both apartment residents (i.e., young children, youths, and adults) and any apartment facility workers (e.g., maintenance employees) that would have access to these areas were not considered as potential receptors and not considered at risk to the Chemicals of Potential Concern (COPCs).

7.3 Determination of Risk Based Cleanup Level

In conclusion, further cleanup of the Site below the observed concentrations is not warranted based on the Site's current use as a commercial facility and the results presented as part of this risk assessment. Using the exposure parameters described in the RA for the occupational employee, an approximate groundwater concentration of 1,000 µg/L of TCE (the COPCs with the highest potential risk) would approach a potential carcinogenic risk in excess of de minimis (1E-6). This is not to say that, at this concentration (1,000 µg/L), deleterious effects are manifested immediately and that active remedial response is necessary since this concentration estimate is based on a 9-year occupational exposure. It does, however, imply that if TCE concentrations approach 1,000 µg/L, the need for the implementation of further remedial action should be assessed.

8.0 LIMITED SOIL GAS SURVEY

After the initial shutdown of the SVE/AS System occurred on January 26, 2001, the NYSDOH, in a letter dated December 3, 2001, recommended a limited soil gas survey be performed at the Site to support the modeled assumptions of the RA discussed in Section 7.0 and determine if residual soil gas levels warranted additional remediation (Appendix A). In accordance with this recommendation, Roux Associates conducted a limited soil gas survey in the foundation aggregate layer within the limits of the source area on March 25, 2002. Six representative locations, as shown on Figure 8, within the interior areas of the main building were sampled (SG-1 through SG-6). An additional four locations (NH-1, NH-2, NH-3 and NH-4) were also sampled on May 1, 2002 in the vicinity of SG-5 and an additional ambient air background sample (NH-5) was collected from the interior of the building on May 1, 2002. The results of the initial soil gas survey, the supplemental soil gas survey, and the ambient air sample were presented in the Limited Soil Gas Survey Letter Report submitted to the NYSDEC on June 19, 2002 (Roux Associates 2002).

Two additional rounds of soil gas samples were collected after the SVE/AS system was temporarily restarted on December 18, 2002 for a three month duration to further reduce contaminants at the Site, as discussed in Section 5.0. The purpose of collecting and analyzing these additional soil gas samples was to confirm that residual soil gas concentrations of TCE were still below acceptable levels after the system had been restarted. The results of this final soil gas survey were presented in the Permanent Shutdown Request submitted to the NYSDEC on May 28, 2003 (Roux Associates 2003).

The methodology and results from the performance of the multiple soil gas surveys are summarized below.

8.1 Initial and Supplemental Soil Gas Survey

A limited soil gas survey was conducted on March 25, 2002 at six representative sampling locations (SG-1, SG-2, SG-3, SG-4, SG-5 and SG-6) within the interior areas of the main building. Based on the results of this initial investigation, an additional four locations (NH-1, NH-2, NH-3 and NH-4) were also sampled on May 1, 2002 in the vicinity of SG-5.

8.1.1 Initial and Supplemental Soil Gas Survey Methodology

At each selected location, Roux Associates advanced a one and one-half inch hole through the floor slab to a depth of approximately 12 inches, equal to the bottom of the foundation. Each soil gas sample was collected using standard soil gas collection methods. To create equilibrium conditions within each sample hole, dedicated sampling tubes were used to purge each sample hole with a low flow air-sampling pump. The low flow pump was operated at a rate of 200 millimeters per minute for approximately five minutes. Purge sampling tubes were then sealed prior to sampling to ensure that a representative sample was collected. Actual sampling was then completed using a second dedicated sampling tube and SUMMA canister sampling methods. This method is based on collection of a whole-air sample in SUMMA stainless steel canisters. Once each whole-air sample was collected, each canister was then submitted to Lancaster Laboratories located in Lancaster, Pennsylvania, for VOCs analysis per USEPA Method TO-14. In addition, an ambient air background sample (NH-5) was collected from the interior of the building.

8.1.2 Initial and Supplemental Soil Gas Survey Results

The results of the initial survey, supplemental survey, and the ambient air sample are summarized in Table 4 and discussed below.

Initial Soil Gas Survey

Of the six locations sampled, the data generated from the subsurface soil gas sample collected from SG-6 was used as a basis of comparison with the assumptions used in the Roux Associates July 2001 RA. As shown on Figure 8, the subsurface soil gas quality in the vicinity of SG-6 (located west of the occupied office areas) would best reflect the soil gas quality beneath the occupied office areas of the property. As summarized below, the soil gas survey performed at this location indicates that the modeled subsurface soil concentrations used to determine the occupation risk inside the occupied areas of the property due to the onsite contaminants of concern (COCs) were overly conservative.

COC	Modeled Subsurface Soil Concentrations Used to determine Occupational Risk ¹	Actual Subsurface Soil Gas Concentration Based on Limited Soil Gas Survey	
	[milligrams per meter cubed (mg/m ³)]	(mg/m ³)	[parts per billion (ppb)]
cis-1,2-Dichloroethene	23	8	4,300
Trichloroethene	77	17	1,500
Vinyl Chloride	1.2	< 0.01	< 1

Note:

1. Based on vapor concentrations at a source derived from groundwater utilizing the Johnson and Ettinger (1991) model.

Supplemental Soil Gas Survey

During the performance of the initial soil gas survey, an atypical TCE concentration of 240,000 ppb [1,310 mg/m³] was detected at SG-5, which was the location of the former degreaser spill. As a result, a supplemental soil gas survey was performed to determine if the concentration detected was an anomaly. As discussed previously, the soil gas at an additional four locations (NH-1, NH-2, NH-3 and NH-4), approximately 10 feet away from SG-5, was collected and sampled as shown on Figure 8. The results of the supplemental soil gas survey are summarized on Table 4. As shown on Table 4, the subsurface soil vapor TCE concentrations detected at these locations ranged from non-detect levels to 7 ppb or an equivalent of 0.04 mg/m³. This confirms that the TCE concentration of 240,000 ppb detected during the initial soil gas survey is an anomaly and is not representative of the soil gas quality in the immediate vicinity of SG-5.

Ambient Air Sample

The results of the background ambient air sample (NH-5) collected on May 1, 2002 are also summarized on Table 4 and reveal that there were no detections of any contaminant of concern within the building.

8.2 Final Soil Gas Survey

After the SVE/AS was restarted on December 18, 2002 as requested by the NYSDEC, two additional soil gas samples was collected within the vicinity of SG-5 (Figure 8). Immediately following start-up of the System, a soil gas sample (SG-7) was collected in the vicinity of the

source area of the main building on January 21, 2003. After approximately three months of continuous operation, the system was shut down and another soil gas sample (SG-8) was collected in the vicinity of the source area of the main building on April 7, 2003.

8.2.1 Final Soil Gas Survey Methodology

The methods used to collect these samples were the same used during the performance of the initial and supplemental soil gas surveys. The samples were analyzed for VOCs using USEPA Method TO-14 and the results are also provided in Table 4.

8.2.2 Final Soil Gas Survey Results

Results from the two additional soil gas samples (SG-7 and SG-8) confirm the results from the previous soil gas sampling events, that the residual VOCs in the groundwater and soil beneath the building does not negatively impact indoor air quality and does not pose any excessive human health risk. The results of the most recent soil gas sampling conducted on April 7, 2003 indicate a TCE concentration of 1,200 ppb. This is consistent with the results from the subsurface soil gas sample SG-6, which best reflects the soil quality beneath the occupied office areas (1,500 ppb on March 25, 2002).

9.0 OPERATION, MAINTENANCE AND MONITORING

This section details the proposed OM&M program for the Site, which shall be implemented as requested by the NYSDEC in a letter dated January 29, 2005 (NYSDEC, 2005). The elements of the OM&M program, groundwater monitoring, and regulatory reporting requirements are described in the subsections below.

9.1 Groundwater Monitoring

As part of the OM&M program, three onsite monitoring wells (MW-1, MW-2 and LMW-25) and two offsite monitoring wells (MWO-1 and MWO-2) will be gauged quarterly for water level measurements and sampled quarterly in accordance with the following sampling methods and requirements described below. This quarterly monitoring and sampling will be conducted for a total of two (2) years.

If, upon completion of the post-remediation monitoring, the residual chemical mass present in the groundwater poses an unacceptable risk to human health and the environment for the contemplated use of the Site, the need for three more years of additional monitoring, on a semi-annual basis, will be assessed. The determination of whether groundwater conditions are protective of human health and the environment will be made in accordance with the Human Health Risk Assessment (Human Health RA) for Volatile Organic Compounds in Soil and Groundwater (Roux Associates, July 2001). Specifically, if VOC groundwater concentrations are below the risk based levels identified in the Human Health RA, no further monitoring or remedial action will be required.

9.2 Sampling Requirements

Monitoring wells will be sampled in accordance with NYSDEC guidelines as described below. Samples collected from the monitoring wells will be analyzed for TCE, cis-1,2-DCE and VC per method ASP 95-4. All analyses will be performed by a certified laboratory.

Sample containers will be pre-labeled before sample collection. The labels will include the sample number, parameter sampled, date, time, sampler's initials and the Site name. A Chain of Custody (COC) form will be maintained as the record of possession for the sample.

Three purge volumes will be removed from each monitoring well prior to sampling. The purged groundwater will be removed using disposable bailers. After each well has been purged, disposable gloves and bailers will be used to collect each sample and to place it in the sample containers. After the analytical samples are collected, the sample bottles will be packed in coolers with ice for shipment to the laboratory.

9.3 Post-Closure Requirements

As part of the post-closure requirements, the Site monitoring wells will be abandoned and the system removed. All air sparge wells, soil vapor extraction wells, and monitoring points not included in the long-term groundwater monitoring program will be abandoned in place by filling with cement-bentonite grout per the NYSDEC requirements. The remedial system will be decommissioned and removed from the Site.

9.4 Building Use Restrictions

Prior to any significant building use changes, an assessment of the presence of soil gas on the Site will be conducted to determine the risk posed by the potential migration of soil gas vapors into the building. Such change shall include any excavation below or under the building slab, more than de minimis excavation around the building, and the placement of additional full-time enclosed offices in the part of the building that is currently used as a warehouse. This latter use does not include the creation of temporary office space or office space for any employee whose primary work activity is other than working from the office.

Prior to any such building usage change, the Volunteers shall conduct an assessment of VOC soil gas concentrations at several representative locations within the building. If soil vapor concentrations are high enough to result in a public health concern, the potential for soil vapor intrusion must be evaluated.

In addition, if onsite soil contamination is encountered during any future construction or demolition activities, the Volunteer shall immediately notify the NYSDEC. Subsequently, soil contamination shall be managed and, if warranted, disposed of offsite at an approved and permitted landfill in accordance with NYSDEC regulations.

9.5 Declaration of Covenants and Restrictions

The following describes the activity and use restrictions for the Site:

- The site shall not be used for purposes other than for the contemplated use as defined in the Voluntary Agreement without an express written waiver of such prohibition by the NYSDEC;
- Soil contamination, if encountered during future construction or demolition activities, shall be managed and, if warranted, disposed of offsite at an approved and permitted landfill in accordance with NYSDEC regulations;
- The groundwater underlying the Site shall not be used for drinking water or industrial use without first obtaining permission to do so from the NYSDEC; and
- The Volunteers consent to the enforcement by the NYSDEC of the prohibitions and restrictions contained in this paragraph, and hereby covenant not to contest such enforcement.

These covenants and restrictions shall be binding on the Volunteers and their successors and assigns. To effectuate this, the Volunteers shall record a Notice of Declaration of Covenants and Restrictions at the Office of the Registrar of the City of New York.

9.6 Regulatory Reporting Requirements

The results of each quarterly sampling event will be summarized and submitted to the NYSDEC in the form of quarterly progress reports. The quarterly reports will follow the same outline as previously submitted progress reports and the outlines of the reports shall be in accordance with the Voluntary Cleanup Agreement.

In addition, an annual letter report shall be submitted to the NYSDEC and shall state that the building floor slab is in good condition and no building use or modification has occurred to trigger any of the provisions as stated in the subsections 9.4 and 9.5. The annual reports shall also state if there is any transfer of ownership of the Volunteers' leasehold interests and, if so, report that they have complied with the requirement to bind successors to the activity and use restrictions. This annual report shall also address compliance with building use and site covenants and restrictions. The annual reports stating building use and leasehold conveyances will be submitted for five years, following which a report will only be submitted if and when the use of the building changes or if there is a transfer of ownership of the leasehold interest. The

report shall be signed by an official of a Volunteer stating that, based on the information and belief formed after reasonable inquiry, the report is true, accurate and complete.

9.7 Amendment

This OM&M plan may be amended or terminated by mutual agreement of the NYSDEC and the Volunteers. Specifically, the Declaration of Covenants and Restrictions set forth in Section 9.5 above may be modified or terminated only by an amendment or a release (in the case of termination) executed by the Commissioner of the NYSDEC and filed with the Office of the Registrar of the City of New York in the manner prescribed by Article 9 of the Real Property Law.

Respectfully submitted,

ROUX ASSOCIATES, INC.

Omar Ramotar, P.E.
Senior Engineer/
Project Manager

10.0 ENGINEER'S CERTIFICATION

In accordance with the requirements of the December 14, 1998 VCA between the Volunteers and the NYSDEC, Remedial Engineering, P.C. certifies that all remedial activities performed at the Site were performed in accordance with the following NYSDEC approved documents and any subsequent changes as agreed to and approved by the Department:

- April 21, 1998 SVE/AS RAWP; and
- September 22, 1998 SVE/AS PADMP.

Remedial Engineering, P.C. certifies that the remedial action work is complete and a No Further Action (NFA) letter is warranted.

REMEDIAL ENGINEERING, P.C.

Charles J. McGuckin, P.E.
Principal Engineer/
Project Principal



11.0 REFERENCES

- LAW Environmental Consultants, Inc., 1997a. Report of Phase I Environmental Site Assessment, Former Duralab Property, Brooklyn, New York, May 27, 1997.
- LAW Environmental Consultants, Inc., 1997b. Report of Phase II Environmental Site Assessment, Former Duralab Property, Brooklyn, New York, June 10, 1997.
- LAW Environmental Consultants, Inc., 1997c. Report of Additional Subsurface Investigation – Phase II Environmental Site Assessment, Former Duralab Property, Brooklyn, New York, July 15, 1997.
- NYSDEC. Voluntary Cleanup Agreement No. W2-0835-98-10, Former Duralab Property, Brooklyn, New York, December 14, 1998.
- NYSDEC. Temporary Shutdown Approval, Former Duralab Property, Brooklyn, New York, March 21, 2001.
- NYSDEC. Permanent Shutdown Approval Letter for the SVE/AS System, Former Duralab Property, Brooklyn, New York, January 29, 2004.
- NYSDEC. Approval for Post-Remediation O&M Plan Requirements, Former Duralab Property, Brooklyn, New York, January 31, 2005.
- NYSDOH. Comments on Risk Assessment, Former Duralab Property, Brooklyn, New York, December 3, 2001.
- Roux Associates, Inc., Soil Vapor Extraction and Air Sparge Remedial Action Work Plan, Former Duralab Property, Brooklyn, New York, April 21, 1998a.
- Roux Associates, Inc., Soil Vapor Extraction and Air Performance Analysis and Design Modification Plan, Former Duralab Property, Brooklyn, New York, September 22, 1998b.
- Roux Associates, Inc., Progress Report #1, Former Duralab Property, Brooklyn, New York, February 4, 1998c.
- Roux Associates, Inc., Progress Report #2, Former Duralab Property, Brooklyn, New York, February 23, 1998d.
- Roux Associates, Inc., Progress Report #3, Former Duralab Property, Brooklyn, New York, April 1, 1998e.
- Roux Associates, Inc., Temporary Shutdown Request, Former Duralab Property, Brooklyn, New York, January 26, 2001a.
- Roux Associates, Inc., Risk Assessment for Volatile Organic Compounds in Soil and Groundwater, Former Duralab Property, Brooklyn, New York, July 23, 2001b.
- Roux Associates, Inc., Limited Soil Gas Survey Letter Report, Former Duralab Property, Brooklyn, New York, June 19, 2002.

Roux Associates, Inc., Permanent Shutdown Request, Former Duralab Property, Brooklyn, New York, May 28, 2003.

Roux Associates, Inc., Request for Approval of Post-Remediation Operation, Maintenance and Monitoring Plan, Former Duralab Property, Brooklyn, New York, October 19, 2004.

USEPA. Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part A) Interim Final, 1989.

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	LMW-25 1/28/1998 (pre-startup)	LMW-25 7/17/1999	LMW-25 12/8/1999	LMW-25 3/27/2000	LMW-25 6/21/2000	LMW-25 7/28/2000
Chloromethane	--	100 U	1 U	10 U	1 U	0.5 U	0.5 U
Bromomethane	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Vinyl Chloride	2	20 U	1 U	10 U	1 U	0.5 U	0.5 U
Chloroethane	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Methylene Chloride	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Acetone	50	100 U	5 U	100 U	10 U	5 U	5 U
Carbon Disulfide	--	100 U	1 U	10 U	1 U	0.5 U	0.5 U
1,1-Dichloroethene	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
1,1-Dichloroethane	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
1,2-Dibromoethane	5	NA	1 U	10 U	1 U	0.5 U	0.5 U
Chloroform	7	70 U	1 U	10 U	1 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	50 U	1 U	10 U	1 U	0.5 U	0.5 U
2-Butanone	50	100 U	5 U	100 U	10 U	5 U	5 U
1,1,1-Trichloroethane	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Carbon Tetrachloride	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Bromodichloromethane	50	100 U	1 U	10 U	1 U	0.5 U	0.5 U
1,2-Dichloropropane	1	50 U	1 U	10 U	1 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	100 U	2 U	10 U	1 U	0.5 U	0.5 U
Trichloroethene	5	1,300	8	6,700	1,400	1000	480
Dibromochloromethane	5	100 U	1 U	10 U	1 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Benzene	1	7 U	1 U	10 U	1 U	0.5 U	0.5 U
Bromoform	50	100 U	1 U	10 U	1 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	100 U	5 U	100 U	10 U	5 U	5 U
2-Hexanone	50	100 U	5 U	100 U	10 U	5 U	5 U
Tetrachloroethene	5	50 U	0.6	12	2	3.8	1.9
Toluene	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Chlorobenzene	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Ethylbenzene	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Styrene	5	50 U	1 U	10 U	1 U	0.5 U	0.5 U
Xylene (total)	5	50 U	3 U	30 U	3 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	NA	1 U	10 U	1 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	NA	1 U	10 U	1 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	NA	1 U	10 U	1 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	NA	1 U	10 U	1 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	NA	3	200	310	120	92
trans-1,2-Dichloroethene	5	NA	1 U	10 U	1	0.9	0.7
1,2,4- Trichlorobenzene	5	NA	1 U	10 U	1 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	--	780	NA	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

	Sample Designation: Date Sampled:	LMW-25 10/18/2000	LMW-25 11/17/2000	LMW-25 12/20/2000	LMW-25 2/22/2001	LMW-25 3/28/2001	LMW-25 5/3/2001
Parameter (Concentrations in µg/L)	NYSDEC AWQSGs ⁽¹⁾ (µg/L)						
Chloromethane	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	320	250	220	210	180	90
Dibromochloromethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U
Tetrachloroethene	5	4.5	2.8	2.3	1.7	1.7	1
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	5	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	71	76	48	80	50	36
trans-1,2-Dichloroethene	5	0.8	0.7	0.6	0.8	0.8	0.5 U
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	--	NA	NA	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

	Sample Designation: Date Sampled:	LMW-25 6/21/2001	LMW-25 8/2/2001	LMW-25 10/11/2001	LMW-25 1/22/2002	LMW-25 9/30/2002	LMW-25 2/18/2004
Parameter (Concentrations in µg/L)	NYSDEC AWQSGs ⁽¹⁾ (µg/L)						
Chloromethane	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.1
Chloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	50	5 U	5 U	0.5 U	5 U	5 U	5 U
Carbon Disulfide	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U
1,1-Dichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	5 U	5 U	0.5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U
Trichloroethene	5	77	120	85	33	230	280
Dibromochloromethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	1.1	0.5 U
Bromoform	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	5 U	5 U	0.5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	0.5 U	5 U	5 U	5 U
Tetrachloroethene	5	1	1.3	0.8	0.5 U	1.6	1.2
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	5	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	32	55	46	14	680	140
trans-1,2-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	2.8	0.9
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	--	NA	NA	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	LMW-25 6/10/2004	LMW-25 3/21/2005	LMW-25 6/29/2005	MW-1 1/28/1998 (pre-startup)	MW-1 5/14/1998	MW-1 11/17/1999
Chloromethane	--	0.5 U	NA	NA	50 U	10 U	1 U
Bromomethane	5	0.5 U	NA	NA	25 U	10 U	1 U
Vinyl Chloride	2	2.1	1.4	1.2	10 U	9 J	4
Chloroethane	5	0.5 U	NA	NA	25 U	10 U	1 U
Methylene Chloride	5	0.5 U	NA	NA	25 U	10 U	1 U
Acetone	50	5 U	NA	NA	57 B	10 U	10 U
Carbon Disulfide	--	0.5 U	NA	NA	50 U	2 U	1 U
1,1-Dichloroethene	5	0.5 U	NA	NA	25 U	10 U	1 U
1,1-Dichloroethane	5	0.5 U	NA	NA	25 U	10 U	1 U
1,2-Dibromoethane	5	0.5 U	NA	NA	NA	NA	1 U
Chloroform	7	0.5 U	NA	NA	35 U	10 U	1 U
1,2 Dichloroethane	0.6	0.5 U	NA	NA	25 U	10 U	1 U
2-Butanone	50	5 U	NA	NA	50 U	10 U	10 U
1,1,1-Trichloroethane	5	0.5 U	NA	NA	25 U	10 U	1 U
Carbon Tetrachloride	5	0.5 U	NA	NA	25 U	10 U	1 U
Bromodichloromethane	50	0.5 U	NA	NA	50 U	10 U	1 U
1,2-Dichloropropane	1	0.5 U	NA	NA	25 U	10 U	1 U
1,3-Dichloropropene (total)	0.4	0.5 U	NA	NA	50 U	10 U	2 U
Trichloroethene	5	220	4.3	380	500	2 J	1 U
Dibromochloromethane	5	0.5 U	NA	NA	50 U	10 U	1 U
1,1,2-Trichloroethane	1	0.5 U	NA	NA	25 U	10 U	1 U
Benzene	1	0.5 U	NA	NA	3.5 U	10 U	1 U
Bromoform	50	0.5 U	NA	NA	50 U	10 U	1 U
4-Methyl-2-Pentanone	--	5 U	NA	NA	50 U	10 U	10 U
2-Hexanone	50	5 U	NA	NA	50 U	10 U	10 U
Tetrachloroethene	5	1	NA	NA	25 U	10 U	1 U
Toluene	5	0.5 U	NA	NA	25 U	10 U	1 U
1,1,2,2-Tetrachloroethane	5	0.5 U	NA	NA	25 U	10 U	1 U
Chlorobenzene	5	0.5 U	NA	NA	25 U	10 U	1 U
Ethylbenzene	5	0.5 U	NA	NA	25 U	10 U	1 U
Styrene	5	0.5 U	NA	NA	25 U	10 U	1 U
Xylene (total)	5	1.5 U	NA	NA	25 U	10 U	3 U
1,2-Dibromo-3-chloropropane	0.04	0.5 U	NA	NA	NA	NA	1 U
1,2 Dichlorobenzene	3	0.5 U	NA	NA	NA	NA	1 U
1,3 Dichlorobenzene	3	0.5 U	NA	NA	NA	NA	1 U
1,4 Dichlorobenzene	3	0.5 U	NA	NA	NA	NA	1 U
cis-1,2-Dichloroethene	5	120	49	170	NA	NA	91
trans-1,2-Dichloroethene	5	1.3	NA	NA	NA	NA	1 U
1,2,4- Trichlorobenzene	5	0.5 U	NA	NA	NA	NA	1 U
1,2-Dichloroethene (total)	--	NA	NA	NA	180	160	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MW-1 5/3/2001	MW-1 6/21/2001	MW-1 10/11/2001	MW-1 1/22/2002	MW-1 9/30/2002	MW-1 3/21/2005
Chloromethane	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Bromomethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Vinyl Chloride	2	3.5	5	3.9	6.1	3.8	9
Chloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Methylene Chloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Acetone	50	5 U	5 U	0.5 U	5 U	5 U	NA
Carbon Disulfide	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,1-Dichloroethane	5	0.9	1.1	1.1	0.5 U	0.5 U	NA
1,2-Dibromoethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Chloroform	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2 Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2-Butanone	50	5 U	5 U	0.5 U	5 U	5 U	NA
1,1,1-Trichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Carbon Tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-Dichloropropane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,3-Dichloropropene (total)	0.4	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	NA
Trichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Bromoform	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4-Methyl-2-Pentanone	--	5 U	5 U	0.5 U	5 U	5 U	NA
2-Hexanone	50	5 U	5 U	0.5 U	5 U	5 U	NA
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Chlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Styrene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Xylene (total)	5	1.5 U	1.5 U	1.5 U	1.5 U	2 U	NA
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,3 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,4 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
cis-1,2-Dichloroethene	5	65	95	60	83	91	94
trans-1,2-Dichloroethene	5	0.8	1	0.9	0.9	1.1	NA
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-Dichloroethene (total)	--	NA	NA	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MW-1 6/29/2005	MW-2 1/28/1998 (pre-startup)	MW-2 3/26/1999	MW-2 4/14/1999	MW-2 5/14/1999	MW-2 6/24/1999
Chloromethane	--	NA	20 U	25 U	10 U	50 U	1 U
Bromomethane	5	NA	10 U	25 U	10 U	50 U	1 U
Vinyl Chloride	2	6.9	4 U	25 U	10 U	50 U	1
Chloroethane	5	NA	10 U	25 U	10 U	50 U	1 U
Methylene Chloride	5	NA	10 U	5 JBD	2 JBD	50 U	1 U
Acetone	50	NA	20 U	25 U	10 U	50 U	5 U
Carbon Disulfide	--	NA	20 U	25 U	10 U	50 U	1 U
1,1-Dichloroethene	5	NA	10 U	25 U	10 U	50 U	1 U
1,1-Dichloroethane	5	NA	10 U	25 U	10 U	50 U	1 U
1,2-Dibromoethane	5	NA	NA	NA	NA	NA	1 U
Chloroform	7	NA	14 U	25 U	25 U	50 U	1 U
1,2 Dichloroethane	0.6	NA	10 U	25 U	25 U	50 U	1 U
2-Butanone	50	NA	20 U	25 U	25 U	50 U	5 U
1,1,1-Trichloroethane	5	NA	10 U	25 U	25 U	50 U	6
Carbon Tetrachloride	5	NA	10 U	25 U	25 U	50 U	1
Bromodichloromethane	50	NA	20 U	25 U	25 U	50 U	2
1,2-Dichloropropane	1	NA	10 U	25 U	25 U	50 U	1 U
1,3-Dichloropropene (total)	0.4	NA	20 U	50 U	50 U	100 U	2 U
Trichloroethene	5	0.5 U	240,000	3,000 D	1,300 D	38,000 D	70,000
Dibromochloromethane	5	NA	20 U	25 U	25 U	50 U	1 U
1,1,2-Trichloroethane	1	NA	10 U	25 U	25 U	50 U	1 U
Benzene	1	NA	1.4 U	25 U	25 U	50 U	1 U
Bromoform	50	NA	20 U	25 U	25 U	50 U	1 U
4-Methyl-2-Pentanone	--	NA	20 U	25 U	25 U	50 U	5 U
2-Hexanone	50	NA	20 U	25 U	25 U	50 U	5 U
Tetrachloroethene	5	NA	10 U	36 D	18	87	200
Toluene	5	NA	10 U	25 U	25 U	24	70
1,1,2,2-Tetrachloroethane	5	NA	10 U	25 U	25 U	50 U	1 U
Chlorobenzene	5	NA	10 U	25 U	25 U	50 U	1 U
Ethylbenzene	5	NA	10 U	25 U	25 U	50 U	2
Styrene	5	NA	10 U	25 U	25 U	50 U	1 U
Xylene (total)	5	NA	10 U	25 U	25 U	50 U	4
1,2-Dibromo-3-chloropropane	0.04	NA	NA	NA	NA	NA	1 U
1,2 Dichlorobenzene	3	NA	NA	NA	NA	NA	1 U
1,3 Dichlorobenzene	3	NA	NA	NA	NA	NA	1 U
1,4 Dichlorobenzene	3	NA	NA	NA	NA	NA	1 U
cis-1,2-Dichloroethene	5	92	NA	NA	NA	NA	380
trans-1,2-Dichloroethene	5	NA	NA	NA	NA	NA	3
1,2,4- Trichlorobenzene	5	NA	NA	NA	NA	NA	1 U
1,2-Dichloroethene (total)	--	NA	10 U	240 D	320 D	370	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

	Sample Designation: Date Sampled:	MW-2 7/17/1999	MW-2 8/18/1999	MW-2 9/20/1999	MW-2 10/21/1999	MW-2 11/17/1999	MW-2 12/8/1999
Parameter (Concentrations in µg/L)	NYSDEC AWQSGs ⁽¹⁾ (µg/L)						
Chloromethane	--	1 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	1 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	1 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	1 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	1 U	10 U	10 U	10 U	10 U	10 U
Acetone	50	5 U	10 U	100 U	100 U	100 U	100 U
Carbon Disulfide	--	1 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	1 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	1 U	10 U	10 U	10 U	10 U	10 U
1,2-Dibromoethane	5	1 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	1 U	10 U	10 U	10 U	10 U	10 U
1,2 Dichloroethane	0.6	1 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	5 U	10 U	100 U	100 U	100 U	100 U
1,1,1-Trichloroethane	5	6	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	1	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	1	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	1	1 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichloropropene (total)	0.4	2 U	20 U	20 U	20 U	20 U	10 U
Trichloroethene	5	68,000	26,000	18,000	4,800	6,900	17,000
Dibromochloromethane	5	1 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	1	1 U	10 U	10 U	10 U	10 U	10 U
Benzene	1	1 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50	1 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	--	5 U	100 U	100 U	100 U	100 U	100 U
2-Hexanone	50	5 U	100 U	100 U	100 U	100 U	100 U
Tetrachloroethene	5	210	160	90	31	120	160 U
Toluene	5	62	22	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	1 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	1 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	2	10 U	10 U	10 U	10 U	10 U
Styrene	5	1 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	5	9	30 U	30 U	30 U	30 U	30 U
1,2-Dibromo-3-chloropropane	0.04	1 U	10 U	10 U	10 U	10 U	10 U
1,2 Dichlorobenzene	3	1 U	10 U	10 U	10 U	10 U	10 U
1,3 Dichlorobenzene	3	1 U	10 U	10 U	10 U	10 U	10 U
1,4 Dichlorobenzene	3	1 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	5	220	160	98	87	230	300
trans-1,2-Dichloroethene	5	2	10 U	10 U	10 U	10 U	10 U
1,2,4- Trichlorobenzene	5	1 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	--	NA	NA	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

	Sample Designation: Date Sampled:	MW-2 1/25/2000	MW-2 2/14/2000	MW-2 3/27/2000	MW-2 5/9/2000	MW-2 6/21/2000	MW-2 7/28/2000
Parameter (Concentrations in µg/L)	NYSDEC AWQSGs ⁽¹⁾ (µg/L)						
Chloromethane	--	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	2	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Chloroethane	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	5 U	2.5 U	1 U	0.5 U	5.3	0.5 U
Acetone	50	50 U	25 U	10 U	5 U	5 U	5 U
Carbon Disulfide	--	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Chloroform	7	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	50 U	25 U	10 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	780	260	280	170	230	170
Dibromochloromethane	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Benzene	1	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromoform	50	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	50 U	2.5 U	10 U	5 U	5 U	5 U
2-Hexanone	50	50 U	25 U	10 U	0.5 U	5 U	5 U
Tetrachloroethene	5	28	8.5	4	1.5	1.3	2.2
Toluene	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Styrene	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
Xylene (total)	5	15 U	7.5 U	3 U	1.5 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	100	56	53	38	52	62
trans-1,2-Dichloroethene	5	5 U	2.5 U	1 U	0.9	0.5 U	0.5 U
1,2,4- Trichlorobenzene	5	5 U	2.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	--	NA	NA	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

	Sample Designation: Date Sampled:	MW-2 8/22/2000	MW-2 9/14/2000	MW-2 10/18/2000	MW-2 11/17/2000	MW-2 12/20/2000	MW-2 1/25/2001
Parameter (Concentrations in µg/L)	NYSDEC AWQSGs ⁽¹⁾ (µg/L)						
Chloromethane	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	190	110	79	82	110	240
Dibromochloromethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	0.5 U	0.5 U	5 U
Tetrachloroethene	5	2.3	0.5 U	0.5 U	0.5 U	0.9	1.2
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	5	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	52	34	40	40	30	53
trans-1,2-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	--	NA	NA	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MW-2 2/22/2001	MW-2 3/28/2001	MW-2 5/3/2001	MW-2 6/21/2001	MW-2 8/2/2001	MW-2 10/11/2001
Chloromethane	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	0.5 U
Carbon Disulfide	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	0.5 U
1,1,1-Trichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	270	180	160	290	120	160
Dibromochloromethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5	1.1	0.8	0.6	0.5 U	1	1.1
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	5	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	52	83	40	71	34	49
trans-1,2-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.7	0.7	0.5
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	--	NA	NA	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 1. Historical Summary of Volatile Organic Compounds Detected in Onsite Ground Water, Former Duralab Site, Brooklyn, New York.

	Sample Designation: Date Sampled:	MW-2 1/22/2002	MW-2 9/30/2002	MW-2 4/7/2003	MW-2 2/19/2004	MW-2 6/10/2004	MW-2 3/21/2005	MW-2 6/29/2005
Parameter (Concentrations in µg/L)	NYSDEC AWQSGs ⁽¹⁾ (µg/L)							
Chloromethane	--	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Bromomethane	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Vinyl Chloride	2	0.5 U	0.5 U	1 U	1.1	2	7.4	4.1
Chloroethane	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Methylene Chloride	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Acetone	50	5 U	5 U	10 U	5 U	5 U	NA	NA
Carbon Disulfide	--	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,1-Dichloroethene	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,1-Dichloroethane	5	0.5 U	0.5 U	1	0.5 U	0.5 U	NA	NA
1,2-Dibromoethane	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Chloroform	7	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,2 Dichloroethane	0.6	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
2-Butanone	50	5 U	5 U	1 U	5 U	5 U	NA	NA
1,1,1-Trichloroethane	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Carbon Tetrachloride	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Bromodichloromethane	50	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,2-Dichloropropane	1	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,3-Dichloropropene (total)	0.4	1.0 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Trichloroethene	5	67	130	280	420	320	460	350
Dibromochloromethane	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,1,2-Trichloroethane	1	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Benzene	1	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Bromoform	50	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
4-Methyl-2-Pentanone	--	5 U	5 U	1 U	5 U	5 U	NA	NA
2-Hexanone	50	5 U	5 U	1 U	5 U	5 U	NA	NA
Tetrachloroethene	5	0.5 U	2.3	1	1.4	1.2	NA	NA
Toluene	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Chlorobenzene	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Ethylbenzene	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Styrene	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
Xylene (total)	5	1.5 U	1.5 U	3 U	1.5 U	1.5 U	NA	NA
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,2 Dichlorobenzene	3	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,3 Dichlorobenzene	3	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,4 Dichlorobenzene	3	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
cis-1,2-Dichloroethene	5	19	21	89	120	110	150	120
trans-1,2-Dichloroethene	5	0.5 U	2	1 U	1.6	1.4	NA	NA
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	1 U	0.5 U	0.5 U	NA	NA
1,2-Dichloroethene (total)	--	NA	NA	1 U	NA	NA	NA	NA

Legend

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

(1) - New York State Department of Environmental Conservation
Ambient-Water Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that
exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 2. Historical Summary of Volatile Organic Compounds Detected in Offsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MWO-1 8/3/1998 (pre-startup)	MWO-1 3/26/1999	MWO-1 9/20/1999	MWO-1 12/8/1999	MWO-1 6/21/2000	MWO-1 1/25/2001
Chloromethane	--	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Bromomethane	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Vinyl Chloride	2	3.1 J	10 U	6.5	12	0.5 U	1.3
Chloroethane	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Methylene Chloride	5	5 U	1 JB	1 U	1 U	0.5 U	0.5 U
Acetone	50	20 U	10 U	10 U	10 U	5 U	5 U
Carbon Disulfide	--	5 U	10 U	1 U	1 U	0.5 U	0.5 U
1,1-Dichloroethene	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
1,1-Dichloroethane	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
1,2-Dibromoethane	5	5 U	1 U	1 U	1 U	0.5 U	0.5 U
Chloroform	7	5 U	10 U	1 U	1 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	5 U	10 U	1 U	1 U	0.5 U	0.5 U
2-Butanone	50	20 U	10 U	10 U	10 U	5 U	5 U
1,1,1-Trichloroethane	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Carbon Tetrachloride	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Bromodichloromethane	50	5 U	10 U	1 U	1 U	0.5 U	0.5 U
1,2-Dichloropropane	1	5 U	10 U	1 U	1 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Trichloroethene	5	35	25	30	2	0.5 U	26
Dibromochloromethane	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Benzene	1	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Bromoform	50	5 U	10 U	1 U	1 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	20 U	10 U	10 U	10 U	5 U	5 U
2-Hexanone	50	20 U	10 U	10 U	10 U	5 U	5 U
Tetrachloroethene	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Toluene	5	5 U	1 U	1 U	1 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Chlorobenzene	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Ethylbenzene	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Styrene	5	5 U	10 U	1 U	1 U	0.5 U	0.5 U
Xylene (total)	5	5 U	10 U	3 U	2 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	NA	1 U	1 U	1 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	NA	1 U	1 U	1 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	NA	1 U	1 U	1 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	NA	1 U	1 U	1 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	40	19	58	180	20	5.2
trans-1,2-Dichloroethene	5	5 U	10 U	1 U	1	0.5 U	0.5 U
1,2,4- Trichlorobenzene	5	10 U	10 U	1 U	1 U	0.5 U	0.5 U

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

⁽¹⁾ - New York State Department of Environmental Conservation Ambient-Water

Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that exceed the NYSDEC AWQSGs.

NA - Not analyzed

Table 2. Historical Summary of Volatile Organic Compounds Detected in Offsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MWO-1 2/22/2001	MWO-1 3/28/2001	MWO-1 5/3/2001	MWO-1 6/21/2001	MWO-1 8/2/2001	MWO-1 10/11/2001
Chloromethane	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	2	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	0.5 U
Carbon Disulfide	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	0.5 U
1,1,1-Trichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	24	18	22	38	14	16
Dibromochloromethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	5 U	5 U	5 U	5 U	5 U	0.5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	0.5 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	5	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	5.3	2.8	3.9	4.3	2.3	2.8
trans-1,2-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

⁽¹⁾ - New York State Department of Environmental Conservation
Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that exceed

NA - Not analyzed

Table 2. Historical Summary of Volatile Organic Compounds Detected in Offsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MWO-1 1/22/2002	MWO-1 9/30/2002	MWO-1 2/18/2004	MWO-1 6/10/2004	MWO-1 3/21/2005	MWO-1 6/29/2005
Chloromethane	--	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Bromomethane	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Vinyl Chloride	2	0.5 U	0.5 U	1.6	2.1	0.5 U	1.5
Chloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Methylene Chloride	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Acetone	50	5 U	5 U	5 U	5 U	NA	NA
Carbon Disulfide	--	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,1-Dichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,2-Dibromoethane	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Chloroform	7	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,2 Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
2-Butanone	50	5 U	5 U	5 U	5 U	NA	NA
1,1,1-Trichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Carbon Tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,2-Dichloropropane	1	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,3-Dichloropropene (total)	0.4	1.0 U	1.0 U	0.5 U	0.5 U	NA	NA
Trichloroethene	5	12	23	50	59	24	30
Dibromochloromethane	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Bromoform	50	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
4-Methyl-2-Pentanone	--	5 U	5 U	5 U	5 U	NA	NA
2-Hexanone	50	5 U	5 U	5 U	5 U	NA	NA
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Chlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Styrene	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Xylene (total)	5	1.5 U	1.5 U	1.5 U	1.5 U	NA	NA
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,2 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,3 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,4 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
cis-1,2-Dichloroethene	5	2.8	6.8	19	42	7.6	14
trans-1,2-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

⁽¹⁾ - New York State Department of Environmental Conservation
Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that exceed

NA - Not analyzed

Table 2. Historical Summary of Volatile Organic Compounds Detected in Offsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MWO-2 8/3/1998 (pre-startup)	MWO-2 6/24/1999	MWO-2 3/27/2000	MWO-2 10/18/2000	MWO-2 5/3/2001	MWO-2 6/21/2001
Chloromethane	--	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	2	1.8 J	3	1 U	1.3	0.5 U	0.5 U
Chloroethane	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Acetone	50	20 U	5 U	10 U	5 U	5 U	5 U
Carbon Disulfide	--	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Chloroform	7	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	5 U	5 U	1 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	20 U	1 U	10 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	5 U	1	1	0.8	0.5 U	0.5 U
Dibromochloromethane	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Benzene	1	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Bromoform	50	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	20 U	5 U	10 U	0.5 U	0.5 U	0.5 U
2-Hexanone	50	20 U	1 U	10 U	5 U	5 U	5 U
Tetrachloroethene	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Toluene	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Styrene	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
Xylene (total)	5	5 U	1 U	3 U	1.5 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	NA	1 U	1 U	0.5 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	NA	1 U	1 U	0.5 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	NA	1 U	1 U	0.5 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	NA	1 U	1 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	23	1 U	46	37	4	7.5
trans-1,2-Dichloroethene	5	5 U	1 U	1 U	0.5 U	0.5 U	0.5 U
1,2,4- Trichlorobenzene	5	10 U	10 U	1 U	0.5 U	0.5 U	0.5 U

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

⁽¹⁾ - New York State Department of Environmental Conservation
Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that exceed

NA - Not analyzed

Table 2. Historical Summary of Volatile Organic Compounds Detected in Offsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MWO-2 8/2/2001	MWO-2 10/11/2001	MWO-2 1/22/2002	MWO-2 9/30/2002	MWO-2 2/18/2004	MWO-2 6/10/2004
Chloromethane	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	50	5 U	0.5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7
1,2-Dibromoethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	5 U	0.5 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (total)	0.4	0.5 U	0.5 U	1.0 U	1.0 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	0.5	0.5 U	1.2	0.5 U	0.6
Dibromochloromethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-Pentanone	--	0.5 U	0.5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	0.5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	5	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dibromo-3-chloropropane	0.04	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4 Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	5.8	7.5	3.7	3	6.7	12
trans-1,2-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4- Trichlorobenzene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

⁽¹⁾ - New York State Department of Environmental Conservation
Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that exceed

NA - Not analyzed

Table 2. Historical Summary of Volatile Organic Compounds Detected in Offsite Ground Water, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in µg/L)	Sample Designation: Date Sampled: NYSDEC AWQSGs ⁽¹⁾ (µg/L)	MWO-2 3/21/2005	MWO-2 6/29/2005
Chloromethane	--	NA	NA
Bromomethane	5	NA	NA
Vinyl Chloride	2	0.5 U	0.6
Chloroethane	5	NA	NA
Methylene Chloride	5	NA	NA
Acetone	50	NA	NA
Carbon Disulfide	--	NA	NA
1,1-Dichloroethene	5	NA	NA
1,1-Dichloroethane	5	NA	NA
1,2-Dibromoethane	5	NA	NA
Chloroform	7	NA	NA
1,2 Dichloroethane	0.6	NA	NA
2-Butanone	50	NA	NA
1,1,1-Trichloroethane	5	NA	NA
Carbon Tetrachloride	5	NA	NA
Bromodichloromethane	50	NA	NA
1,2-Dichloropropane	1	NA	NA
1,3-Dichloropropene (total)	0.4	NA	NA
Trichloroethene	5	0.5 U	1
Dibromochloromethane	5	NA	NA
1,1,2-Trichloroethane	1	NA	NA
Benzene	1	NA	NA
Bromoform	50	NA	NA
4-Methyl-2-Pentanone	--	NA	NA
2-Hexanone	50	NA	NA
Tetrachloroethene	5	NA	NA
Toluene	5	NA	NA
1,1,2,2-Tetrachloroethane	5	NA	NA
Chlorobenzene	5	NA	NA
Ethylbenzene	5	NA	NA
Styrene	5	NA	NA
Xylene (total)	5	NA	NA
1,2-Dibromo-3-chloropropane	0.04	NA	NA
1,2 Dichlorobenzene	3	NA	NA
1,3 Dichlorobenzene	3	NA	NA
1,4 Dichlorobenzene	3	NA	NA
cis-1,2-Dichloroethene	5	5.3	16
trans-1,2-Dichloroethene	5	NA	NA
1,2,4- Trichlorobenzene	5	NA	NA

µg/L - Micrograms per liter

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

D - Diluted Value

⁽¹⁾ - New York State Department of Environmental Conservation
Quality Standards or Guidelines

Bold - Data highlighted in Bold represent detections that exceed

NA - Not analyzed

Table 3. Summary of Volatile Organic Compounds Detected in Soil, Duralab Property, Brooklyn, New York.

	Sample Designation:	SB-1	SB-1	SB-3	SB-3	SB-3A
	Sample Depth (ft bls):	0-1	2-4	4-6	10-12	0-2
	Date Sampled:	1/20/1998	1/20/1998	1/20/1998	1/20/1998	6/22/2001
		(pre-startup)	(pre-startup)	(pre-startup)	(pre-startup)	(post-shutdown)
	NYSDEC RSCOs					
	(µg/kg)					
Concentrations in µg/kg						
Chloromethane	--	10 U	10 U	1,200 U	10 U	5 U
Bromomethane	--	10 U	10 U	1,200 U	10 U	5 U
Vinyl Chloride	200	10 U	10 U	1,200 U	10 U	5 U
Chloroethane	1,900	10 U	10 U	1,200 U	10 U	5 U
Methylene Chloride	100	6 J	2 J	270 J	10 U	5 U
Acetone	200	52 B	16 B	2,700	230 EB	50 U
Carbon Disulfide	2,700	10 U	10 U	1,200 U	10 U	5 U
1,1-Dichloroethene	400	10 U	10 U	1,200 U	10 U	5 U
1,1-Dichloroethane	200	10 U	10 U	1,200 U	10 U	5 U
1,2-Dichloroethene (total)	300	10 U	10 J	1,200 U	10 U	5 U
Chloroform	300	10 U	10 U	1,200 U	10 U	5 U
1,2-Dichloroethane	100	10 U	10 U	1,200 U	10 U	5 U
2-Butanone	300	12 B	2 JB	1,200 U	2 JB	5 U
1,1,1-Trichloroethane	800	10 U	10 U	1,200 U	10 U	5 U
Carbon Tetrachloride	600	10 U	10 U	1,200 U	10 U	5 U
Bromodichloromethane	--	10 U	10 U	1,200 U	10 U	5 U
1,2-Dichloropropane	--	10 U	10 U	1,200 U	10 U	5 U
cis-1,3-Dichloropropene	--	10 U	10 U	1,200 U	10 U	5 U
Trichloroethene	700	60	180	980 J	20	38
Dibromochloromethane	--	10 U	10 U	1,200 U	10 U	5 U
1,1,2-Trichloroethane	--	10 U	10 U	1,200 U	10 U	5 U
Benzene	60	10 U	10 U	1,200 U	10 U	5 U
trans-1,3-Dichloropropene	--	10 U	10 U	1,200 U	10 U	5 U
Bromoform	--	10 U	10 U	1,200 U	10 U	5 U
4-Methyl-2-Pentanone	1,000	6 J	10 U	1,200 U	10 U	5 U
2-Hexanone	--	2 J	10 U	1,200 U	10 U	5 U
Tetrachloroethene	1,400	10 U	1 J	1,200 U	10 U	5 U
1,1,2,2-Tetrachloroethane	600	10 U	10 U	1,200 U	10 U	5 U
Toluene	1,500	5 J	1 J	1,200 U	25	5 U
Chlorobenzene	1,700	10 U	10 U	1,200 U	10 U	5 U
Ethylbenzene	5,500	2 J	10 U	1,200 U	1 J	5 U
Styrene	--	10 U	10 U	1,200 U	10 U	5 U
Xylene (total)	1,200	22	10 U	1,200 U	9 J	10 U

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

R - Replicate sample

NYSDEC RSCOs - New York State Department of
Environmental Conservation
Recommended Soil Cleanup Objectives

Bold - Data highlighted in Bold represent
detections that exceed the NYSDEC
RSCOs

Table 3. Summary of Volatile Organic Compounds Detected in Soil, Duralab Property, Brooklyn, New York.

	Sample Designation:	SB-3R	SB-4	SB-5	SB-5	SB-6
	Sample Depth (ft bls):	10-12	0-2	6-8	8-10	0-2
	Date Sampled:	1/20/1998	1/20/1998	1/20/1998	1/20/1998	1/20/1998
		(pre-startup)	(pre-startup)	(pre-startup)	(pre-startup)	(pre-startup)
	NYSDEC RSCOs					
	(µg/kg)					
Concentrations in µg/kg						
Chloromethane	--	10 U	10 U	10 U	10 U	10 U
Bromomethane	--	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	200	10 U	10 U	10 U	10 U	10 U
Chloroethane	1,900	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	100	10 U	10 U	10 U	10 U	10 U
Acetone	200	100 B	130 B	42 B	6 JB	42 JB
Carbon Disulfide	2,700	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	400	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	200	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	300	10 U	10 U	10 U	10 U	10 U
Chloroform	300	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	100	10 U	10 U	10 U	10 U	10 U
2-Butanone	300	2 JB	2 JB	15 B	10 U	10 U
1,1,1-Trichloroethane	800	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	600	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	--	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	--	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	--	10 U	10 U	10 U	10 U	10 U
Trichloroethene	700	12	37	10 U	10 U	410
Dibromochloromethane	--	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	--	10 U	10 U	10 U	10 U	10 U
Benzene	60	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	--	10 U	10 U	10 U	10 U	10 U
Bromoform	--	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	1,000	10 U	10 U	10 U	10 U	10 U
2-Hexanone	--	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	1,400	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	600	10 U	10 U	10 U	10 U	10 U
Toluene	1,500	11	11	10 U	10 U	10 U
Chlorobenzene	1,700	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5,500	0.4 J	10 U	10 U	10 U	10 U
Styrene	--	10 U	10 U	10 U	10 U	10 U
Xylene (total)	1,200	3 J	2 J	10 U	10 U	10 U

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

R - Replicate sample

NYSDEC RSCOs - New York State Department of
Environmental Conservation
Recommended Soil Cleanup Objectives

Bold - Data highlighted in Bold represent
detections that exceed the NYSDEC
RSCOs

Table 3. Summary of Volatile Organic Compounds Detected in Soil, Duralab Property, Brooklyn, New York.

		Sample Designation:	SB-6 SB-6A
		Sample Depth (ft bls):	6-8 2-4
		Date Sampled:	1/20/1998 6/22/2001
			(pre-startup) (post-shutdown)
		NYSDEC RSCOs	
Concentrations in µg/kg	(µg/kg)		
Chloromethane	--	10 U	5 U
Bromomethane	--	10 U	5 U
Vinyl Chloride	200	10 U	5 U
Chloroethane	1,900	10 U	5 U
Methylene Chloride	100	10 U	5 U
Acetone	200	1 JB	50 U
Carbon Disulfide	2,700	10 U	5 U
1,1-Dichloroethene	400	10 U	5 U
1,1-Dichloroethane	200	10 U	5 U
1,2-Dichloroethene (total)	300	63	5 U
Chloroform	300	10 U	5 U
1,2-Dichloroethane	100	10 U	5 U
2-Butanone	300	10 U	5 U
1,1,1-Trichloroethane	800	10 U	5 U
Carbon Tetrachloride	600	10 U	5 U
Bromodichloromethane	--	10 U	5 U
1,2-Dichloropropane	--	10 U	5 U
cis-1,3-Dichloropropene	--	10 U	5 U
Trichloroethene	700	120	5 U
Dibromochloromethane	--	10 U	5 U
1,1,2-Trichloroethane	--	10 U	5 U
Benzene	60	10 U	5 U
trans-1,3-Dichloropropene	--	10 U	5 U
Bromoform	--	10 U	5 U
4-Methyl-2-Pentanone	1,000	10 U	5 U
2-Hexanone	--	10 U	5 U
Tetrachloroethene	1,400	1 J	5 U
1,1,2,2-Tetrachloroethane	600	10 U	5 U
Toluene	1,500	10 U	5 U
Chlorobenzene	1,700	10 U	5 U
Ethylbenzene	5,500	10 U	5 U
Styrene	--	10 U	5 U
Xylene (total)	1,200	10 U	10 U

µg/kg - Micrograms per kilogram

ft bls - Feet below land surface

U - Indicates compound was not detected

J - Estimated value

B - Analyte detected in blank sample

R - Replicate sample

NYSDEC RSCOs - New York State Department of
Environmental Conservation
Recommended Soil Cleanup Objectives

Bold - Data highlighted in Bold represent
detections that exceed the NYSDEC
RSCOs

Table 4. Soil Gas Survey Results, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in ppb)	Sample Designation: Date Sampled:	SG-1 3/25/2002	SG-2 3/25/2002	SG-3 3/25/2002	SG-3 DUP 3/25/2002	SG-4 3/25/2002	SG-5 3/25/2002	SG-6 3/25/2002	SG-7 1/21/2003	SG-8 4/7/2003
Dichlorodifluoromethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Freon 114		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Chloromethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Vinyl Chloride		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Bromomethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Chloroethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Trichlorofluoromethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,1-Dichloroethene		1 U	1 U	130 U	33 U	50 U	500 U	16 D	50 U	5 U
Freon 113		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
3-Chloropropene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Methylene Chloride		77	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,1-Dichloroethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
cis-1,2-Dichloroethene		22	1 U	510 D	430 D	1500 D	6500 D	4300 D	1800	330 D
Chloroform		2	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,1,1-Trichloroethane		2	2	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Carbon Tetrachloride		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,2-Dichloroethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Benzene		3	3	130 U	33 U	50 U	500 U	5 U	260 D	6 D
Trichloroethene		2000 D	40	6700 D	9400 D	9900 D	240000 D	1500 D	28000 D	1200 D
1,2-Dichloropropane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
cis-1,3-Dichloropropene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Toluene		3	2	850 D	160 D	50 U	500 U	5 U	420 D	10 D
trans-1,3-Dichloropropene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,1,2-Trichloroethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Tetrachloroethene		2	1 U	130 U	69 D	110 D	500 U	50 D	50 U	5 U
1,2-Dibromoethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Chlorobenzene		1 U	1 U	130 U	33 U	180 D	500 U	5 U	50 U	5 U
Ethylbenzene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	170 D	5 U
m/p-Xylene		2	1 U	130 U	33 U	50 U	500 U	5 U	330 D	5 D
o-Xylene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	150 D	5 U
Styrene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,1,2,2-Tetrachloroethane		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
4-Ethyltoluene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,3,5-Trimethylbenzene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,2,4-Trimethylbenzene		1 U	1 U	130 U	33 U	52 D	500 U	5 U	50 U	5 U
1,3-Dichlorobenzene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,4-Dichlorobenzene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Benzyl chloride		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,2-Dichlorobenzene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
1,2,4-Trichlorobenzene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U
Hexachlorobutadiene		1 U	1 U	130 U	33 U	50 U	500 U	5 U	50 U	5 U

Legend

ppb - parts per billion

U - Indicates compound was not detected

D - Diluted Value

Bold - Data highlighted in Bold represent detections

Table 4. Soil Gas Survey Results, Former Duralab Site, Brooklyn, New York.

Parameter (Concentrations in ppb)	Sample Designation: Date Sampled:	NH-1 5/1/2002	NH-2 5/1/2002	NH-2 DUP 5/1/2002	NH-3 5/1/2002	NH-4 5/1/2002	NH-5 5/1/2002
Dichlorodifluoromethane		1 U	1 U	1 U	1 U	1 U	1 U
Freon 114		1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride		1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane		1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane		1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane		1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene		1 U	1 U	1 U	1 U	1 U	1 U
Freon 113		1 U	1 U	1 U	1 U	1 U	1 U
3-Chloropropene		1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride		4	4	5	4	4	1
1,1-Dichloroethane		1 U	1 U	1 U	1	1 U	1 U
cis-1,2-Dichloroethene		30	220 D	89	63	130 D	1 U
Chloroform		1 U	1 U	1 U	1	1 U	1 U
1,1,1-Trichloroethane		1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride		1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane		1 U	1 U	1 U	1 U	1 U	1 U
Benzene		1 U	1 U	1 U	1 U	1	1 U
Trichloroethene		1 U	5	1 U	1 U	7	1 U
1,2-Dichloropropane		1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U
Toluene		7	12	5	6	10	5
trans-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane		1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene		1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane		1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene		1 U	1	1 U	1 U	1	1 U
m/p-Xylene		3	5	3	3	4	3
o-Xylene		1	2	1	1	1	1
Styrene		1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	1 U	1 U	1 U
4-Ethyltoluene		1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene		1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene		1	1	1 U	1	1	1
1,3-Dichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
Benzyl chloride		1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorobutadiene		1 U	1 U	1 U	1 U	1 U	1 U

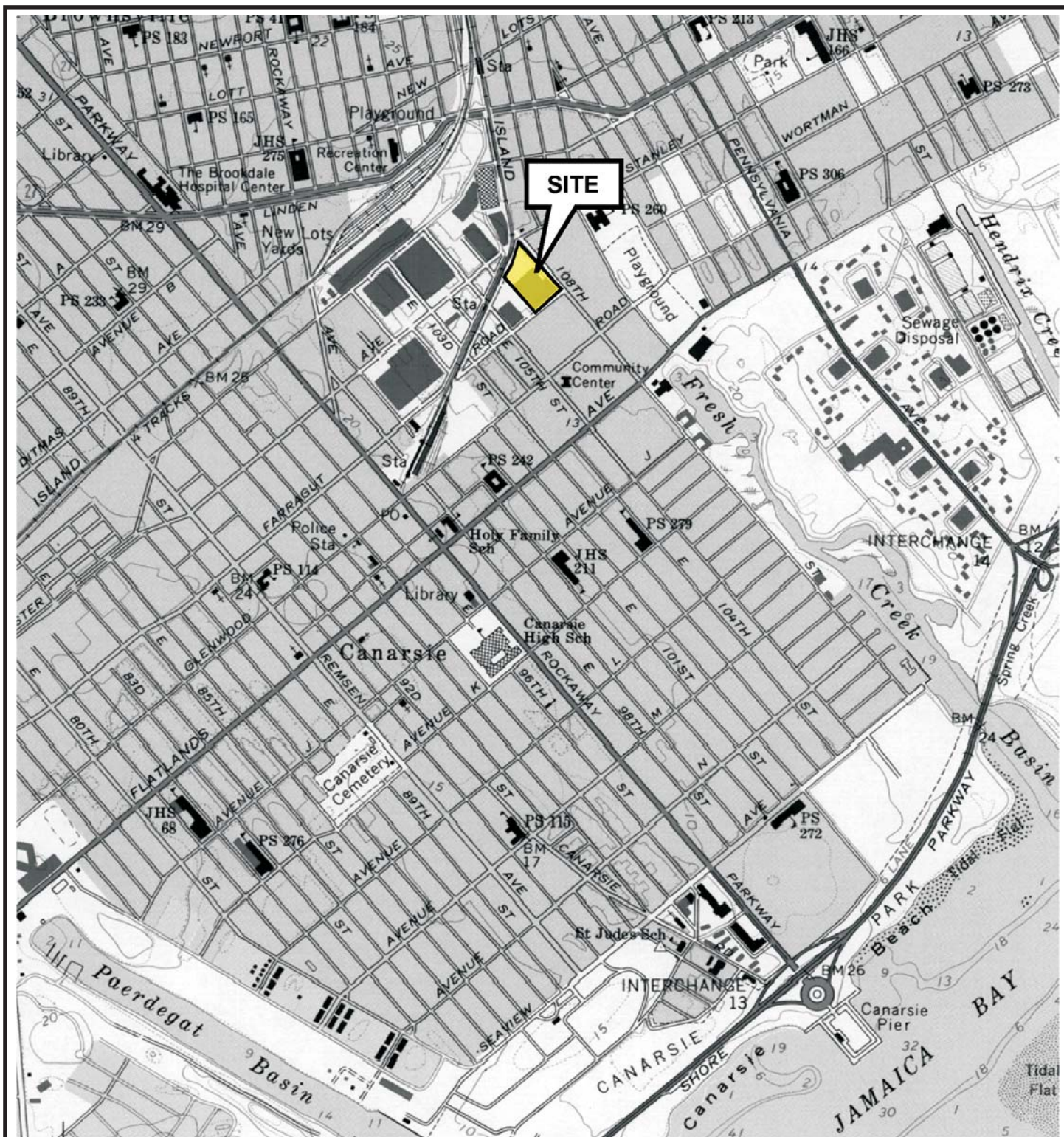
Legend

ppb - parts per billion

U - Indicates compound was not detected

D - Diluted Value

Bold - Data highlighted in Bold represent detections



QUADRANGLE LOCATION



Title:

SITE LOCATION MAP

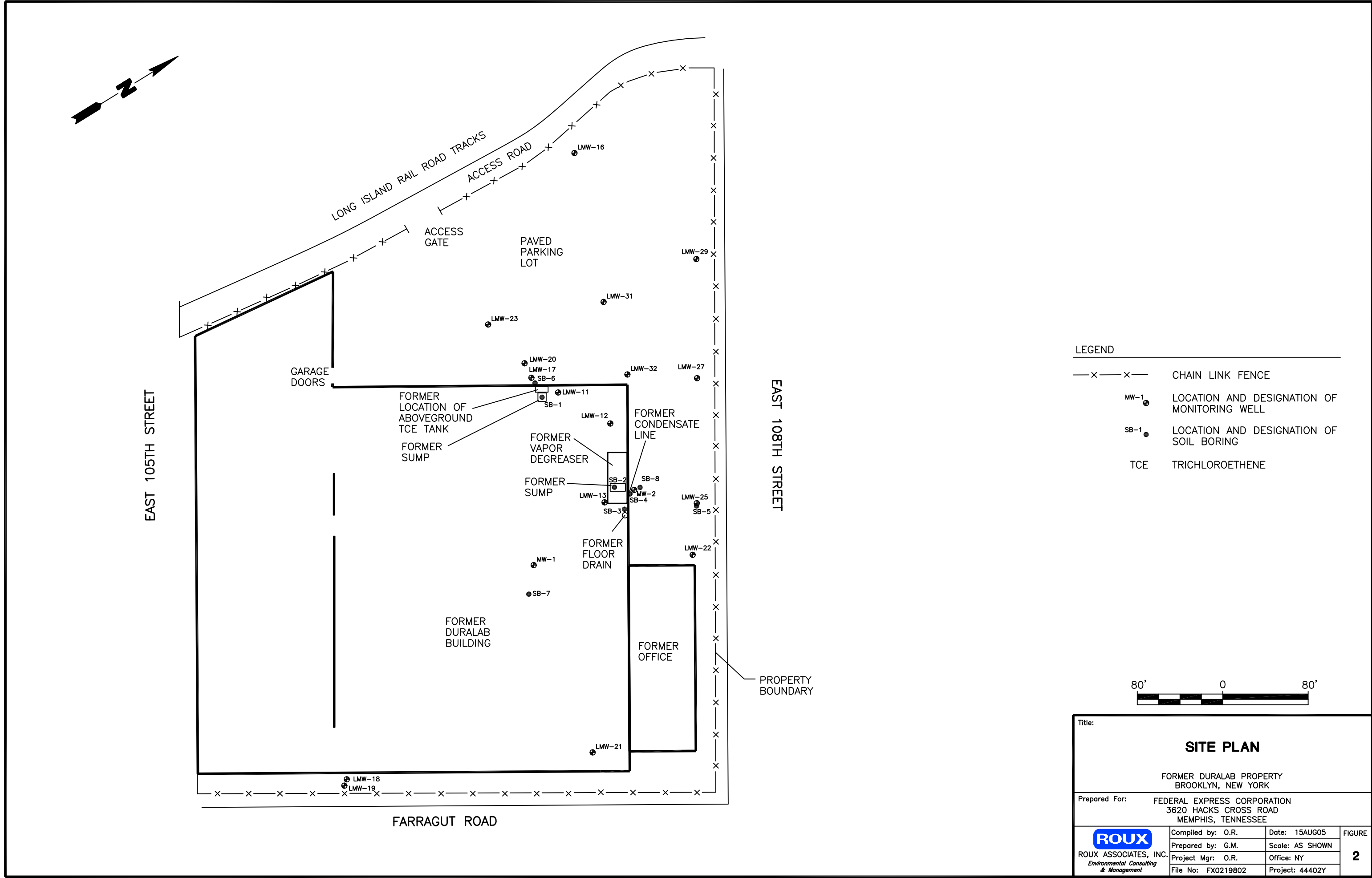
FORMER DURALAB PROPERTY
BROOKLYN, NEW YORK

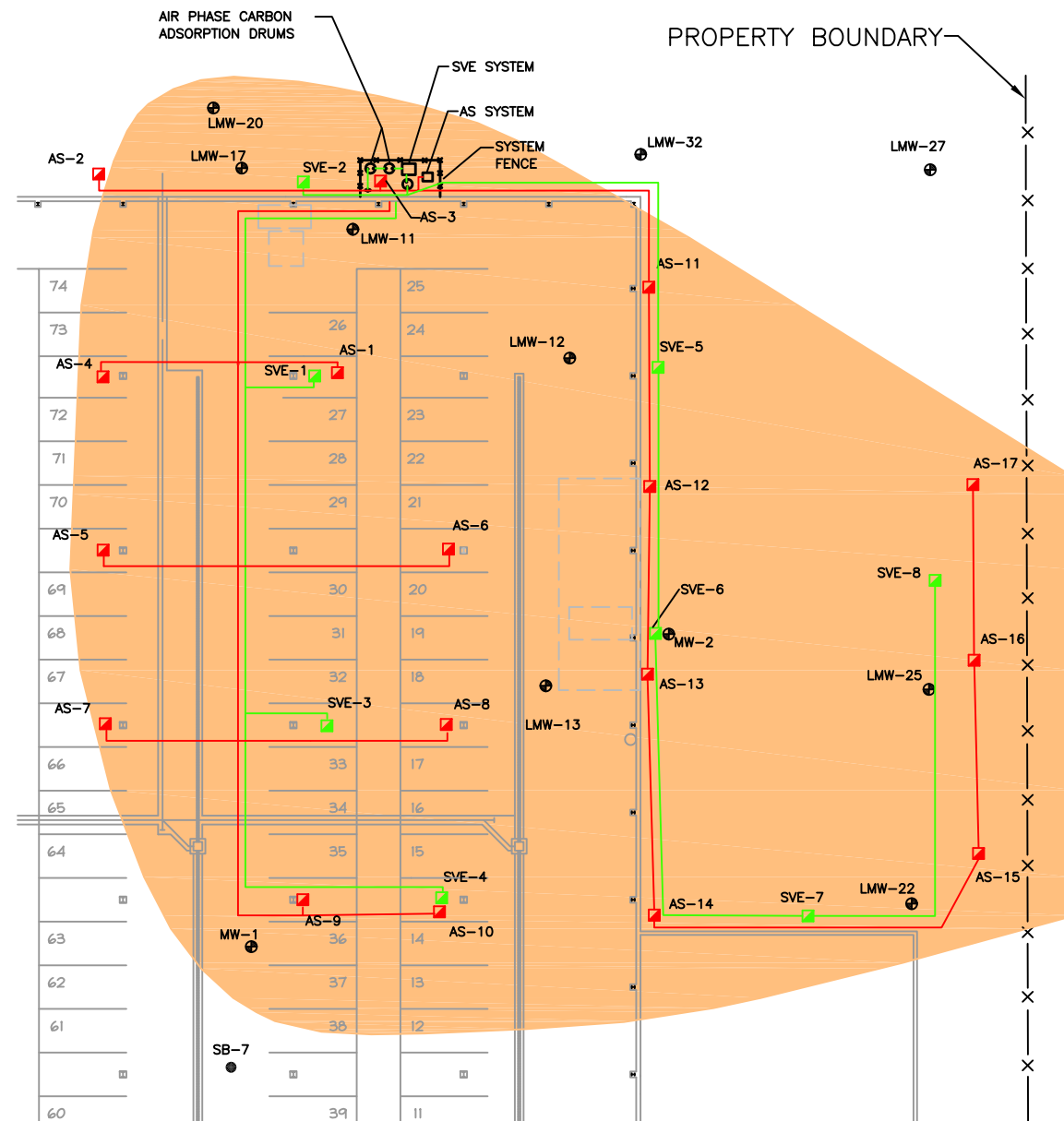
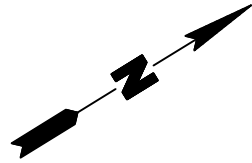
Prepared for:

FEDERAL EXPRESS CORPORATION
3620 HACKS CROSS ROAD
MEMPHIS, TENNESSEE

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting
& Management

Compiled by: O.R.	Date: 15AUG05	FIGURE 1
Prepared by: G.M.	Scale: SHOWN	
Project Mgr.: O.R.	Office: NY	
File No.: FX0219801	Project No.: 44402Y	





- LEGEND
- x — x — CHAIN LINK FENCE
 - — — — — FORMER BUILDING STRUCTURE
 - MW-1 LOCATION AND DESIGNATION OF EXISTING MONITORING WELL
 - APPROXIMATE EXTENT OF SOURCE AREA
 - SVE-1 LOCATION AND DESIGNATION OF SVE WELL
 - AS-1 LOCATION AND DESIGNATION OF AIR SPARGE WELL
 - SOIL VAPOR EXTRACTION PIPING
 - AIR SPARGE PIPING

- NOTES
1. SITE PLAN ADAPTED FROM "NEW (PARTIAL FLOOR PLAN ONE," ENGINEERING DESIGN ASSOCIATES, JUNE 1997. REVISED NOVEMBER 1997 AS PART OF THE PROPOSED RENOVATION FOR THE FEDERAL EXPRESS CITY STATION FACILITY (FORMER DURALAB PROPERTY).

40' 0 40'

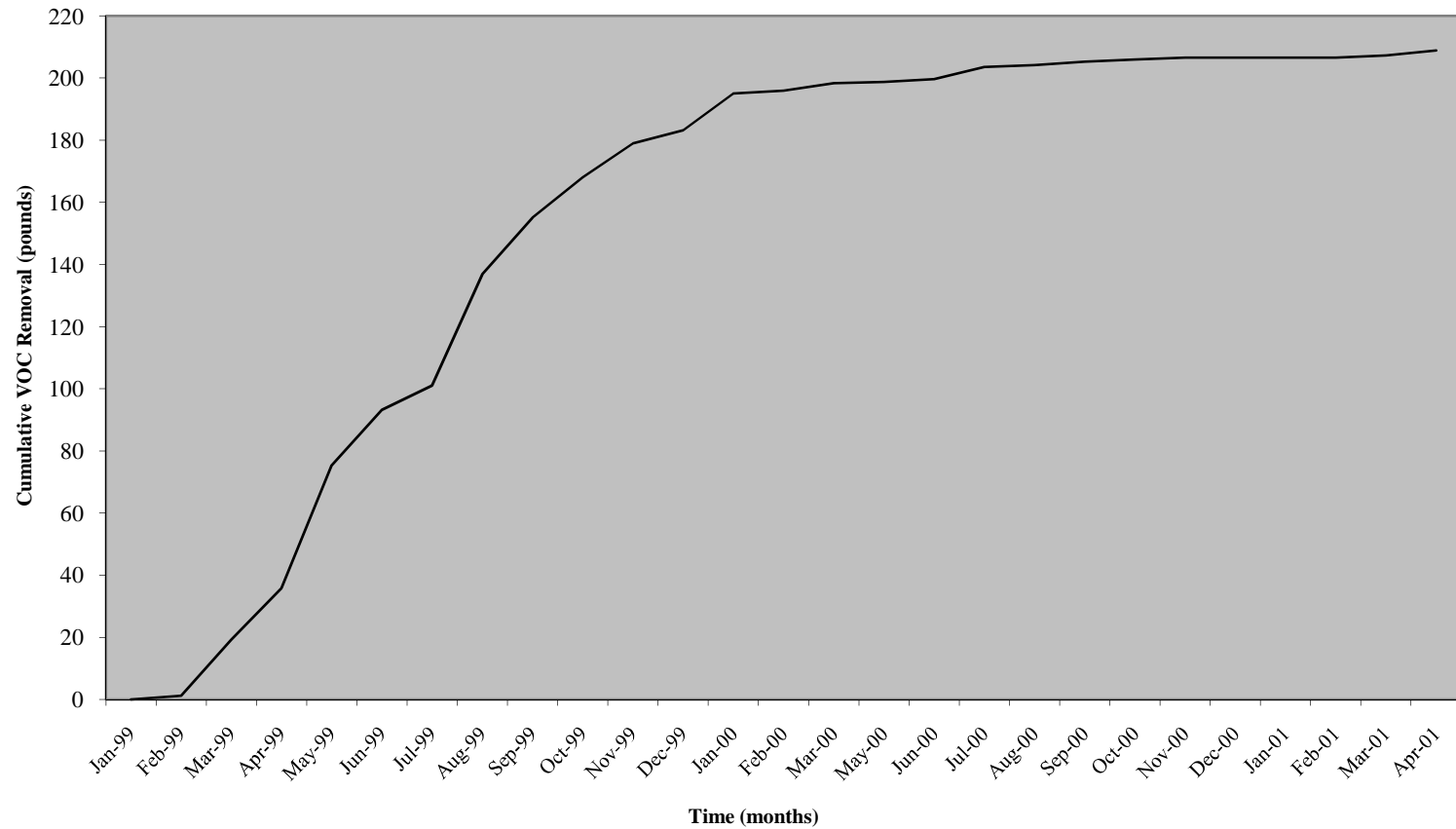
Title: **SVE AND AS SYSTEM WELL AND EQUIPMENT LAYOUT**

FORMER DURALAB PROPERTY
BROOKLYN, NEW YORK

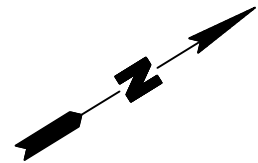
Prepared For: **FEDERAL EXPRESS CORPORATION**
3620 HACKS CROSS ROAD
MEMPHIS, TENNESSEE

ROUX ROUX ASSOCIATES, INC. <i>Environmental Consulting & Management</i>	Compiled by: O.R.	Date: 13SEP05	FIGURE 4
	Prepared by: G.M.	Scale: AS SHOWN	
	Project Mgr: O.R.	Office: NY	
	File No: FX0219804	Project: 44402Y	

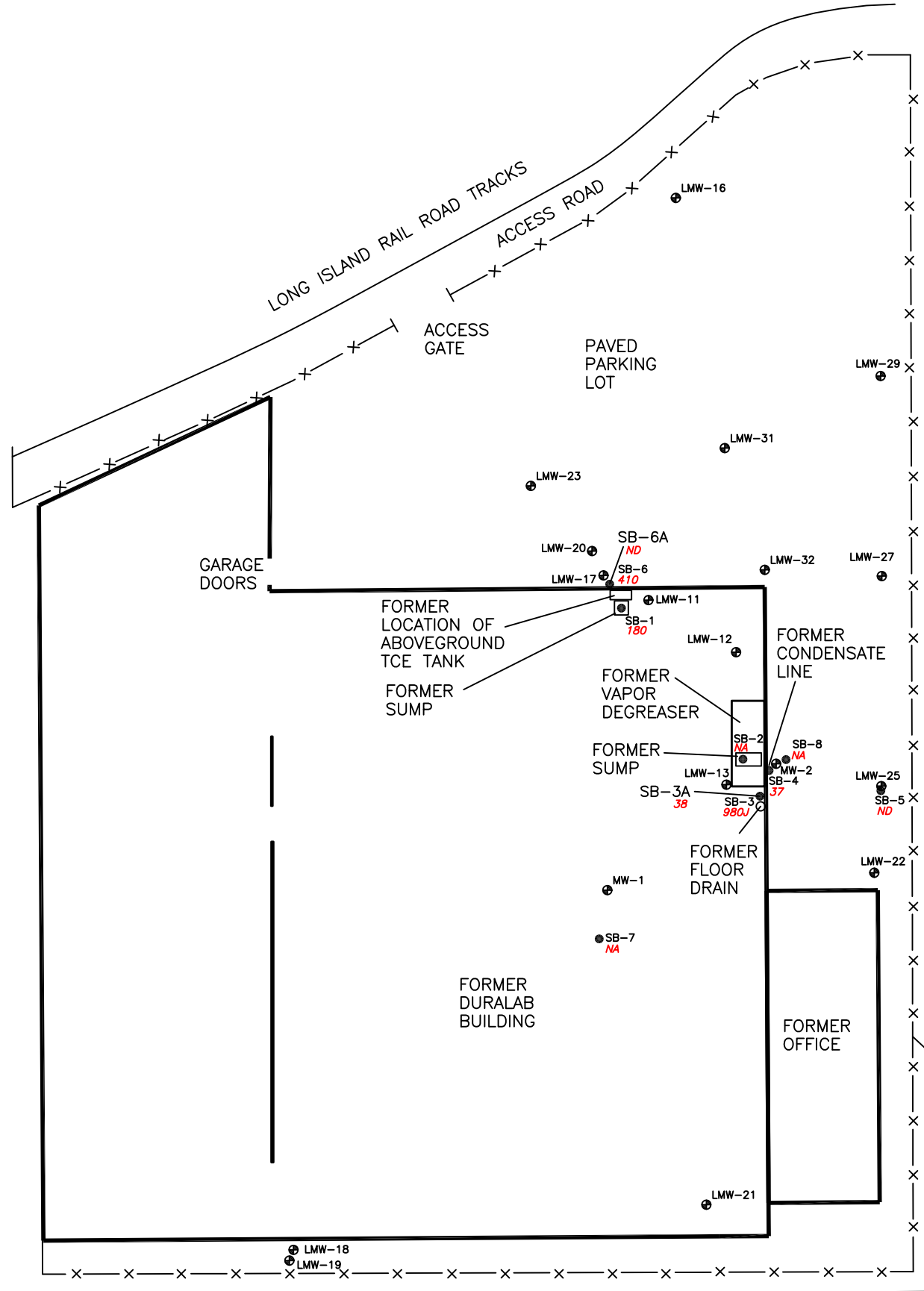
**Figure 5. Cumulative VOC Removal Since System Start-up
Former Duralab Site, Brooklyn, New York**



N:\PROJECTS\FX444\FX02Y\170\FX0217001.DWG



EAST 105TH STREET



FARRAGUT ROAD

EAST 108TH STREET

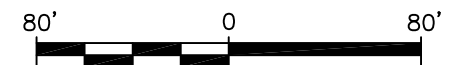
PROPERTY
BOUNDARY

LEGEND

— x — x —	CHAIN LINK FENCE
MW-1	LOCATION AND DESIGNATION OF MONITORING WELL
SB-1	LOCATION AND DESIGNATION OF SOIL BORING
180	TRICHLOROETHENE (TCE) CONCENTRATIONS IN MICROGRAMS PER KILOGRAM (ug/Kg)
J	ESTIMATED VALUE
ND	NON-DETECTION
NA	NO SAMPLE COLLECTED DUE TO SUBSURFACE CONDITIONS (REFUSAL)

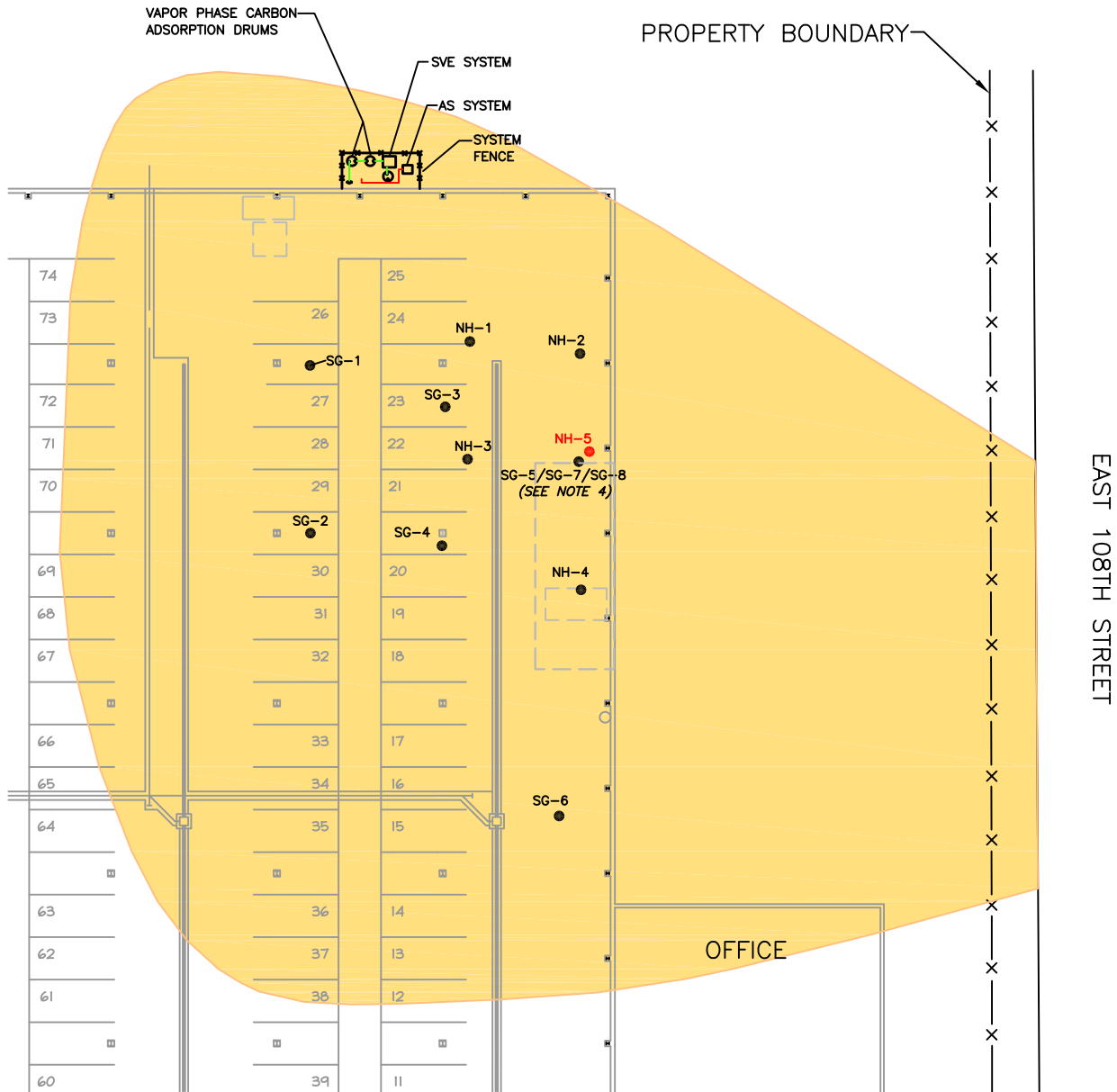
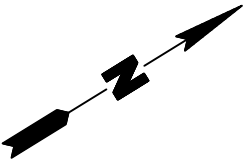
NOTES

1. TCE CONCENTRATIONS SHOWN REPRESENT THE HIGHEST CONCENTRATIONS DETECTED AT EACH SOIL BORING PERFORMED DURING THE JANUARY 1998 SOIL INVESTIGATION PROGRAM FOR SB-1, SB-3, SB-4, SB-5 AND SB-6, AND DURING THE JUNE 2001 SOIL INVESTIGATION PROGRAM FOR SB-3A AND SB-6A.
2. SOIL AT PREVIOUSLY SAMPLED LOCATIONS SB-3 AND SB-6 WERE RESAMPLED IN JUNE 2001 RESPECTIVELY AS SB-3A AND SB-6A.



Title: TRICHLOROETHENE CONCENTRATIONS DETECTED IN SOIL PRIOR TO SYSTEM START-UP AND AFTER SYSTEM SHUTDOWN			
FORMER DURALAB PROPERTY BROOKLYN, NEW YORK			
Prepared For: FEDERAL EXPRESS CORPORATION 3620 HACKS CROSS ROAD MEMPHIS, TENNESSEE			
 ROUX ASSOCIATES, INC. Environmental Consulting & Management	Compiled by: O.R.	Date: 15AUG05	FIGURE 7
	Prepared by: G.M.	Scale: AS SHOWN	
	Project Mgr: O.R.	Office: NY	
	File No: FX0219806	Project: 44402Y	

N:\PROJECTS\FX444\FX02\198\FX0219807.DWG



LEGEND

— x — x —

CHAIN LINK FENCE

— — — — —

FORMER BUILDING STRUCTURE

SG-1

●

LOCATION AND DESIGNATION OF SOIL GAS SURVEY SAMPLING POINT COMPLETED ON MARCH 25, 2002, JANUARY 21, 2003 OR APRIL 7, 2003 (SEE NOTE 2)

NH-1

●

LOCATION AND DESIGNATION OF SOIL GAS SURVEY SAMPLING POINT COMPLETED ON MAY 1, 2002

NH-5

●

LOCATION AND DESIGNATION OF AMBIENT AIR SAMPLING POINT COMPLETED ON MAY 1, 2002

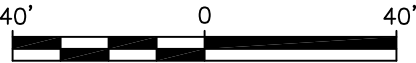
APPROXIMATE EXTENT OF SOURCE AREA

- NOTES
1. SITE PLAN ADAPTED FROM "NEW (PARTIAL FLOOR PLAN ONE," ENGINEERING DESIGN ASSOCIATES, JUNE 1997. REVISED NOVEMBER 1997 AS PART OF THE PROPOSED RENOVATION FOR THE FEDERAL EXPRESS CITY STATION FACILITY (FORMER DURALAB PROPERTY).

2. SOIL GAS SURVEY SAMPLING POINTS SG-1, SG-2, SG-3, SG-4, SG-5 AND SG-6 WERE COMPLETED ON MARCH 25, 2002; SOIL GAS SURVEY SAMPLING POINT SG-7 WAS COMPLETED ON JANUARY 21, 2003 AND SOIL GAS SAMPLING POINT SG-8 WAS COMPLETED ON APRIL 7, 2003.

3. SOIL GAS SAMPLING POINTS NH-1, NH-2, NH-3 AND NH-4 WERE COMPLETED ON MAY 1, 2002. AMBIENT AIR WAS SAMPLED AT NH-5 ON MAY 1, 2002.

4. SOIL GAS SURVEY SAMPLING POINTS SG-5, SG-7 AND SG-8 WERE COMPLETED AT THE SAME LOCATION ON DIFFERENT SAMPLING DATES, MARCH 25, 2002, JANUARY 21, 2003 AND APRIL 7, 2003 RESPECTIVELY.



Title:

SOIL GAS SURVEY SAMPLING LOCATIONS

FORMER DURALAB PROPERTY
BROOKLYN, NEW YORK

Prepared For:

FEDERAL EXPRESS CORPORATION
ONE CENTURY DRIVE
PARSIPPANY, NEW JERSEY

ROUX

ROUX ASSOCIATES, INC.
Environmental Consulting
& Management

Compiled by: O.R.

Prepared by: G.M.

Project Mgr: O.R.

File No: FX0219807

Date: 15AUG05

Scale: AS SHOWN

Office: NY

Project: 44402Y

FIGURE
8

APPENDIX A

January 24, 2004 Permanent Shutdown Approval from the NYSDEC

New York State Department of Environmental Conservation

Division of Environmental Remediation, Region 2

47-40 21ST Street, Long Island City, NY 11101-5407

Phone: (718) 482-4995 • FAX: (718) 482-6358

Website: www.dec.state.ny.us



Erin M. Crotty
Commissioner

January 29, 2007¹⁴

Omar Ramotar, P.E.
Roux Associates Inc
1377 Motor Parkway
Islandia, New York 11749

Re: SVE/AS Remedial System
Temporary System Shutdown

Dear Mr. Ramotar:

The New York State department of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC) have reviewed your request regarding the Permanent Shutdown of the Soil Vapor Extraction/Air Sparging system at the former Duralab property. Based upon the results, groundwater concentrations have stabilized. Therefore, the Department is approving your request for the system shutdown with the following comments:

1. Groundwater quality exceeds standards for TCE in several wells within the source area. The Department is requesting a long term plume management plan for monitored natural attenuation (MNA).
2. The residual concentration of soil gas needs to be further evaluated. The April 7, 2003, soil gas sample contained 1200 ppb (6480 ug/m³) of trichloroethene and 330 ppb (1303 ug/m³) of cis-1,2-dichloroethene. These concentrations of soil gas could result in indoor air containing concentrations above background for these respective chemicals. If conditions of the on-site building change, additional measures, such as a sub-slab vapor extraction system, may be necessary. This was discussed during a conference call with you and NYSDOH.
3. As per our previous discussions, a Voluntary Cleanup release letter can only be issued after implementation of Institutional Controls (ICs) consisting of deed restrictions on groundwater usage and soil management during any future construction activity.

4. Per Remedial Action Plan, please provide us with a schedule for post shut down monitoring.

If you have any questions, please contact me.

Sincerely,



Shaminder Chawla
Hazardous Waste Remediation

cc: D. Walsh
J. Lacetti, NYSDOH

APPENDIX B

January 31, 2005 Approval for Post-Remediation O&M Plan Requirements

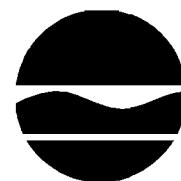
New York State Department of Environmental Conservation

Division of Environmental Remediation, Region 2

47-40 21ST Street, Long Island City, NY 11101-5407

Phone: (718) 482-4995 · FAX: (718) 482-6358

Website: www.dec.state.ny.us



January 31, 2005

Omar Ramotar, P.E.
Roux Associates Inc
1377 Motor Parkway
Islandia, New York 11749

Re: Operation, Maintenance & Monitoring Plan
Federal Express/Duralab Site

Dear Mr. Ramotar:

The New York State Department of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC) have reviewed your Proposed Operation, Maintenance & Monitoring Plan. This plan is approved with the following language change in section 6.5 on page 4:

6.5. Environmental Easement : "The following describes the use restrictions for the site that will be effectuated by an Environmental Easement pursuant to Title 36, Article 71 of the N.Y.S. Environmental Conservation Law granted to the People of the State of New York through the Commissioner of Department of Environmental Conservation by the City of New York (the landowner), and binding on, among others, the Volunteers and their successors and assigns:"

If you have any questions, please contact me.

Sincerely,

Shaminder Chawla
Hazardous Waste Remediation

cc: D. Walsh
J. Lacetti, NYSDOH

APPENDIX C

March 21, 2001 Temporary Shutdown Approval from the NYSDEC

**New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2**

47-40 21ST Street, Long Island City, NY 11101-5407

Phone: (718) 482-4995 • FAX: (718) 482-6358

Website: www.dec.state.ny.us



Erin M. Crotty
Acting
Commissioner

March 21, 2001

Omar Ramotar, P.E.
Roux Associates Inc
1377 Motor Parkway
Islandia, New York 11749

Re: SVE/AS Remedial System
Temporary System Shutdown

Dear Mr. Ramotar:

The New York State department of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC) have reviewed your letter dated December 27, 2000 regarding the temporary shutdown of the Soil Vapor Extraction/Air Sparging system. Pursuant to our January 23, 2001 telephone conference call with you and NYSDOH, the Department is approving your request for the temporary shutdown and your proposed additional work with the following comments:

1. As per our phone conversation, it is my understanding that Roux will include additional monitoring wells (MW-21a) the corner of 108th street and Farragut road, Wells (MW-27 & MW-29) located in the northeast portion of the site and (MW-18) located in southern portion of the property by Farragut Road) for post shutdown groundwater sampling.
2. In addition to sampling all the pertinent monitoring wells, two soil samples should be taken from the source area before a decision is made on a final shutdown of the system.
3. Please submit the monitoring plan in more details including proposed schedule for sampling events.
4. After two rounds of groundwater sampling, as well as after preparation of the risk Assessment Report, you can submit, with justification, a system shut down request. If the results continue to be above NYSDEC Ambient Water Quality Standards and Guidelines for Class GA groundwater, we have to look at the following options: turn the SVE/AS system back on, do plume management monitoring or allow Monitored Natural Attenuation.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Shaminder Chawla". The signature is written in dark ink and is positioned above the printed name.

Shaminder Chawla
Hazardous Waste Remediation

cc: R. Gardineer/T. Lang
J. Nealon, NYSDOH

APPENDIX D

December 3, 2001 NYSDEC Comments on
Roux Associates, Inc.'s July 23, 2001 Risk Assessment

Attn: Omar Ramota
631 232 9891
FAX



STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

December 3, 2001

Mr. Shaminder Chawla
New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation
Region 2 Office
47-40 21st Street
Long Island City, NY 11101

Re: Former Duralab Property
Site #V00192-2
Brooklyn, Kings County

Dear Mr. Chawla:

I have reviewed the July 2001 Risk Assessment and the September 2001 Permanent Shut-Down Request for the Duralab Property. I offer the following comments for your consideration:

Risk Assessment

The consultant has performed numerous calculations to model concentrations of volatile organic chemicals that may be present in air in the on-site buildings. However, there is no substitute for direct measurement of soil gases that may be driven into these buildings.

Chemical vapors must be present in the zone directly adjacent (below or next to) to the foundation in order for them to infiltrate into the occupied areas of a building. The most reliable measurement of soil gases tends to be from the highly permeable aggregate directly beneath the building's foundation. If chemical vapors are found in these soil gases, then the forces that may drive these soil gases into the building may need to be evaluated.

Direct measurement of indoor air quality may not give an accurate picture of overall air quality. Seasonal fluctuations of the pressure gradient between the foundation and indoor air due to heating, cooling, and ventilation would strongly influence the migration of soil gases into occupied areas of the building.



Mr. Shaminder Chawla
Former Duralab Property
November 29, 2001

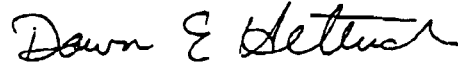
Therefore, I recommend measurement of contaminant concentrations in soil gas from the foundation aggregate to verify the assumptions of the risk assessment with actual field data. If soil gases are at a level of concern, the consultant may need to evaluate the HVAC system and determine the likelihood of soil gases migrating into the building. Elevated soil gases may also indicate the need for additional remedial work.

Permanent Shut-Down Request

From the data provided in this report and in Quarterly Progress Report #23 it is evident that some recharge of contamination has occurred and that the levels have stabilized. The persistence of contamination at this site further indicates a need to evaluate soil gases so that we can evaluate the potential impact on indoor air.

If you have any questions about or want to discuss these comments, please contact me at (518) 402-7880.

Sincerely,



Dawn E. Hettrick
Assistant Sanitary Engineer
Bureau of Environmental Exposure Investigation

cc: Mr. G. Litwin/Mr. G. Lacetti
J. Leighton, Dr.PH – NYC DOH
Mr. D. Wolterding – NYD DEC, Region 2

P:\Bureau\Sites\Region_2\KINGS\V001922\risk.doc