Final

Focussed Remedial Investigation Report

Regarding:

299 Main Street Site
Westbury, New York
(Site Code 1-30-043S)

Submitted to:

The New York State
Department of Environmental Conservation

September 2000

IMPACT ENVIRONMENTAL

a division of impact environmental consulting, inc.

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1. INTRODUCTION

This Focused Remedial Investigation (FRI) report details the implementation and results of tasks that were scoped to investigate the environmental quality of 299 Main Street, Westbury, New York, herein identified as the "Site". The current owner of the Site is 2632 Realty Development Corp. This FRI report is submitted in accordance with the provisions of the Order on Consent between the NYSDEC and 2632 Realty Development Corp. dated June 30, 1999. The FRI tasks were performed in accordance with the FRI Work Plan submitted to and approved by the NYSDEC on June 4, 1999, and the USEPA document, Guidance for Conducting Remedial Investigations and Feasibility Studies Under the Comprehensive Environmental Response, Compensation and Liability Act, October 1988.

The Site is located within the western portion of the New Cassel Industrial Area (NCIA). The NCIA occupies an area of approximately 170 acres. A water quality study performed on groundwater within the NCIA by the County of Nassau in 1986 detected extensive and elevated concentrations of volatile organic contaminants in the regional groundwater. Consequently, in 1988 the New York State Department of Environmental Conservation (NYSDEC) designated the entire NCIA an Inactive Hazardous Waste Disposal Site (IHWDS), as defined in ECL: 27-1301.2.

In 1997, a Multi-site PSA Task 4 Report prepared by Lawler, Matusky and Skelly Engineers (LMS) for the NYSDEC suggested that individual properties within the NCIA contained the pollution sources responsible for the detected regional groundwater contamination. In recognition of this, the NYSDEC eliminated the regional listing approach and adopted a strategy of locating individual properties within the NCIA for listing as an IHWDS. Based upon an interpretation of the data in the LMS report, the NYSDEC determined that the Site was one of such properties. As such, the Site was listed on the State registry of IHWDS as site 01-30-043S.

1.1 Objectives and Scope

The approved FRI Work Plan was designed to delineate the nature, source and extent of contamination beneath the Site. The "focus" aspect of the FRI relates to acquiring strategic data to confirm or refute the Site as a primary or contributory source of chlorinated organic groundwater contamination. By virtue of proper procedure, it is also intended to comment on other groundwater aspects. Accordingly, an attempt was made to identify and test all existing and former on-site point and non-point pollution sources, and to evaluate what, if any, impact they had upon local and regional groundwater quality.

To identify all of the existing and former on-site point and non-point pollution sources, the following tasks were performed.

- Review of Site land use history.
- Review of previous on and off-site soil and groundwater quality investigations.
- Review of applicable records maintained by Local, State and Federal regulatory agencies.
- Review of geologic factors impacting contaminant migration.
- Interior inspection of the Site.
- Exterior inspection of the tentatively identified pollution source features.
- Remote survey of the Site exterior surface areas.
- Destructive survey of Site features.
- Groundwater sampling and analysis.
- Subsurface soil sampling and analysis.
- Survey and gauging of groundwater monitoring wells.
- Data tabulation.
- Data validation.
- Data interpretation.

2. SITE BACKGROUND STUDY

2.1 Site Description

The Site is located at 299 Main Street, Westbury, New York, and is designated by the Nassau County Tax Assessors Office as Section 11, Block 144, Lots 35-46. The Site is situated in the western section of the NCIA (see **Plate 1**) and encompasses an areal extent of approximately 35,700 square feet (see **Plate 2**). The NCIA is located in the unincorporated Village of Westbury, in the Town of North Hempstead, Nassau County, New York. The NCIA is comprised of individual properties with an aggregate area of approximately 170 acres. The NCIA is bordered by the Long Island Rail Road to the north, Old County Road to the south, Grand Boulevard to the west and Frost Street to the east.

The properties contained within the NCIA were mainly developed between the 1950s and 1960s. The NCIA is primarily composed of industrial and commercial properties. It is estimated that approximately two hundred industrial and/or commercial businesses operate within the NCIA (LMS, 1994). Numerous types of industrial operations are performed at these facilities. Such operations generally require the storage and handling of chlorinated and/or halogenated volatile organic chemicals (solvents, degreasers, etc.). Prior to the late 1970s and early 1980s, when public sewer services became available, the facilities within the NCIA discharged wastewater to individual on-site sanitary waste disposal systems (cesspools, seepage pits).

The Site is bordered by Main Street to the south, a salvage yard to the north, Garden Street to the west and Hopper Street to the east. The Site was initially developed circa 1956 with one single-story, steel framed, masonry building. Subsequently, the building was improved with several additions and alterations. Presently, the existing building has an approximate footprint of 9,450 square feet. The existing building is serviced with a natural gas fired heating system and was connected to the public sewer system by 1987 (Leamond, Haefner, Cauller and Stackelberg, 1991).

The Site was originally developed for light industrial applications. Such land uses have historically included automotive repair, automotive storage, automotive sales, automotive salvage, and bulk petroleum transportation. Based upon a review of reverse telephone directories, the former occupants of the Site were identified to include Mid-Island Transit, Crestwood Bus Service, Asphalt Petroleum, Island Transportation, Frank's Used Auto, Jarrid Limo Service, Sam-Ton Salvage, Scibelli Automotive and One Auto & Truck Center (COLE, 1971-1999). The Site is currently occupied by Dealer Quality Collision, an automotive collision repair shop.

In addition to those former Site operators identified from the telephone directories, 2632 Realty Development Corp. possessed records indicating the following.

Tenant	Period of Occupancy
Star Bus Company, Inc./Crestwood Bus Service, Inc.	Pre-1971
Island Transportation Corp.	1971 to 1981
Sam-Ton Salvage and Towing, Inc./Sam-Ton Salvage, Inc./Sam-Ton Foreign and American Auto Salvage, Inc.	1981-1993
Phil's Auto and Truck Repairs/One Stop Auto and Truck Repairs	1994 to 1997
Salvage Recovery Systems, Inc.	1997 to present

2632 Realty Development Corp. has never occupied or conducted operations at the Site.

2.2 Previous Investigations

2.2.1 New Cassel Industrial Area

In 1986, the Nassau County Department of Health (NCDH) conducted an investigation of contaminated aquifer segments in Nassau County, New York. This investigation was implemented to identify the most significant sources of groundwater contamination in the County, and to determine the extent and sources of the contamination. Based on the results of data obtained from this investigation, the environmental quality of the groundwater underlying the NCIA was determined to be substantially impaired, and required further study (NCDH, 1986) The aquifers of Long Island are utilized as a sole-source supply of public drinking water. As such, the detected groundwater contamination created a potential threat to the local public drinking water supply wells (Westbury and Bowling Green Water Districts).

As a result of the investigation, the NYSDEC classified the entire NCIA as a Class 2 Inactive Hazardous Waste Disposal Site in 1988. As such, all of the property owners within the NCIA became Potentially Responsible Parties (PRPs). In 1992, LMS was contracted by the NYSDEC to conduct additional investigative activities within the NCIA. The purpose of this investigation was to define the nature and extent of groundwater contaminants beneath the NCIA, identify potential point sources of contamination, and redefine the NCIA according to measured contamination (LMS, 1997). The objectives of this investigation were attained by executing a large-scale subsurface investigation in conjunction with a review of government agency records for individual properties within the NCIA. The information procured from the record review was compiled into a comprehensive database detailing individual property attributes. This included tax map information, addresses, past and current occupants, wastewater discharge history, recorded spills, historic environmental conditions and a historic chemical inventory.

Upon determining suspected contaminant sources, an investigation plan was developed. This plan consisted of the sampling and analysis of soil and groundwater from strategic locations throughout the NCIA. The design and implementation of this plan was to provide data that would delineate contaminant plume characteristics.

The investigation report completed by LMS in 1994 identified several areas exhibiting significant groundwater contamination within the NCIA (LMS, 1994). These contaminated areas were divided into three areas identified as the western, central and eastern sections. Said investigation report indicated that two apparently overlapping contaminant plumes were detected in the western section; three separate contaminant plumes were detected in the central section; and two separate contaminant plumes were detected in the eastern section. This data analysis was necessary to establish a graphical representation of contaminant plume boundaries, that was used to identify suspected contaminant sources. These investigative findings were the basis that enabled the NYSDEC to document PRPs associated with properties suspected as contaminant sources

or contributors, and to eliminate PRPs within areas exhibiting ambient groundwater quality conditions.

Consequent to documenting a registry of PRPs associated with individual IHWDSs, property owners petitioned to de-list (remove) their properties from the State registry of IHWDS. In response to these requests, the NYSDEC de-listed numerous sites from the registry. However, this agreement was stipulated under the provision that if additional investigations confirmed these properties to be a source of contamination, they would be re-listed (LMS, 1995).

In accordance with the stipulations reserved for PRPs de-listing their properties, the NYSDEC contracted LMS Engineers to conduct additional investigations within the NCIA. These investigations were specifically designed to document a more precise understanding of contaminant sources and plumes than reported in previous investigations. The methods for achieving this information were similar to previous investigations. In addition to a more detailed subsurface investigation, site inspections of individual facilities were conducted to further assess contaminant source potential. These additional investigations are documented in reports dated February 1995 and March 1997. Based on the data obtained from these investigations, a revised registry of facilities was documented. The classifications of these facilities vary depending on their individual status. In conclusion, LMS Engineers recommended that further investigations be conducted in highly contaminated areas, and that interim remedial measures be conducted on the identified source areas to remove any continuing source of contamination to the aquifer systems.

2.2.2 299 Main Street Site

Under the scope of the investigations in the 1994 and 1995 NYSDEC and LMS reports, a historic records inventory was compiled for properties within the western section of the NCIA. The records compiled pertained to matters regarding land use applications, former occupants', chemical storage inventory and wastewater disposal practices. The

information compiled revealed that historic land uses of the Site were industrious and that former occupants of the Site were involved with the automotive industry and bulk storage transportation. Records review identified that former occupants of the Site utilized and/or generated eighty gallons of TCE per year, five hundred gallons of methanol per year, five hundred-twenty gallons of mineral spirits per year and three thousand-seven hundred and ten gallons of waste oil per year. These chemical inventories were catalogued when Island Transportation and Asphalt Petroleum occupied the Site between 1971 and 1982. The estimated duration of occupancy at the Site appeared to have been derived from a review of the Cole reverse telephone directory. Prior to the connection to the public sewer system, historic wastewater discharge was directed to an on-site sanitary disposal system.

Additionally, the scope of the NYSDEC and LMS investigations included facility inspections. The Site was inspected in April 1994 by LMS. The inspection revealed that One Stop Auto Truck Centers occupied the Site since April of 1994 and operated as an automobile and truck service garage. The inspection indicated that the business did not utilize underground storage tanks. There were no floor drains identified within the building interior, although there was a grated drain along the garage doors. The outfall location of this drain was unknown,as the rear lot had recently been paved, covering over signs of old leaching pools. Several features identified at the Site suggested the use of underground chemical storage tanks.

Based on the investigative findings of the NYSDEC and LMS reports between 1992 and 1997 for the western section of the NCIA, it was determined that a contaminant plume of chlorinated organic compounds traversed the southeast corner of the Site. This contaminant plume was identified as the "Garden Street/Hopper Street Plume". According to the 1994 and 1995 reports, the analyte within the plume that was detected at the most significant concentrations was tetrachloroethene (PCE). The PCE detected was identified near the northeastern and southeastern corners of 542 Main Street (Al's Tool and Die). The concentrations of PCE detected at these locations elevated significantly with an increase of vertical depth into the aquifer. With regards to the Trichloroethene

(TCE) contamination detected in the "Garden Street/Hopper Street Plume", elevated concentrations were detected at locations near 86 Garden Street (Harmon Associates). Based on observed TCE concentrations and corresponding degradation products, it was concluded that two overlapping contaminant plumes exist for this analyte.

The reports summarize that a release of PCE has occurred in the vicinity or up-gradient of 542 Main Street and that the up-gradient extent of this PCE plume appeared to be in the vicinity of 110 Hopper Street. The reports identify potential sources for this PCE plume to include 110 Hopper Street and the properties at the southern end of tax map block 145 (559 Main Street). The reports also indicate that 542 Main Street, 534 Main Street and 95 Hopper Street are potential PCE sources. Therefore, based on the potential for multiple sources of PCE and TCE contamination, LMS recommended that the Garden Street/Hopper Street Plume area be listed as Class 2 or 2a. As such, 110 Hopper Street, 559 Main Street, 534 Main Street, 542 Main Street, 95 Hopper Street and 567 Main Street were identified as potential registry sites.

With specific regards to the Site, the 1995 report documented that groundwater and soil quality data secured up-gradient failed to detect target analytes (chlorinated PCE or TCE). Additionally, it was documented that down-gradient groundwater data was not significantly elevated in comparison to the up-gradient data. The 1995 report concludes that the data obtained on the Site did not support a correlation with the major contaminant plume, and therefore should not be included in the registry.

Although the 1995 report recommended that the Site should not be included in the registry, it remained listed as a potential registry site as evidenced in the 1997 Multi-Site PSA Task 4 Report. This most recent investigation involved the collection of additional data points in the Garden Street/Hopper Street plume area and specifically in the vicinity of the Site. Additional data points were secured at locations hydraulically up-gradient and down-gradient of the Site. The investigative findings determined that the PCE contamination detected in the Garden Street/Hopper Street plume was horizontally and vertically extensive. The highest concentrations of PCE were detected in the vicinity of

95 Hopper Street and in the northern sections of Swalm Avenue. However, based on the documented historic chemical use and an interpretation of the comprehensive data that had been compiled from all investigative activities, it was suggested that the Site was a contaminant source and has impacted groundwater quality. This was the basis for the Site listing on the registry as a Class 2 IHWDS.

2.3 Government Record Inventory

The background study of the Site was extended to include a review of applicable documentation from Local, State and Federal regulatory agencies. The data was reviewed to identify any potential on-site point and non-point pollution sources. Point pollution sources are those generated from a recognizable source to a specific location (e.g. an underground injection well, an underground storage tank, a settling lagoon). Non-point pollution sources are those generated from a non-recognizable source and non-specific location (e.g. surface spills to a permeable media, spills to a semi-permeable containment structure). All of the records were obtained pursuant to the Freedom of Information Act (FOIA). Copies of all applicable records obtained are presented in **Appendix A.2**.

In many cases, conflicting data was identified from the review of the Government records. Data that was determined to be in conflict with other data compiled under the scope of this FRI, or data determined to be erroneous is discussed in **Section 2.5** of this report.

2.3.1 Federal Records

FOIA obtained records received from the United States Environmental Protection Agency (USEPA) indicated that the Site was listed on the Comprehensive Environmental, Response, Compensation, and Liability Information System (CERCLIS). Said listing identified the Site as being part of the NCIA IHWDS (NY0001095363). The Site was not listed on the National Priority List (NPL) or the ERNS list.

The Site, as previously operated by Island Transportation, was identified as having been a RCRA hazardous waste generator (NYD020576898).

2.3.2 State Records

FOIA obtained records reviewed from the NYSDEC indicated that the Site was listed as an IHWDS (130043S). The Site is also listed on the Active Petroleum Spill Logs

(9309400 and 9706902) for the release of waste oil, antifreeze and other unknown petroleum products to the ground surface (no groundwater impact indicated) due to poor housekeeping practices.

The Site was not listed as a solid waste management facility. The site was not listed on the current State Pollutant Discharge Elimination Systems (SPDES) permit listing. The Site was not listed on either the Chemical or Petroleum Bulk Storage Listings (CBS/ PBS). The Site was not listed on the Major Oil Storage Facilities (MOSF) listing.

2.3.3 Local Records

FOIA obtained records reviewed from the Nassau County Department of Health (NCDH) indicated that the Site was listed on the Department's Industrial Chemical Survey. The survey, which was completed in 1977, indicated that the Site occupant (Island Transportation Corp.) utilized eighty gallons of TCE per year. The TCE was listed as being dispensed with an evaporator from a 275-gallon above ground storage/holding tank. The TCE was utilized to coat the inside of bituminous asphalt cement tank trucks on the east-side of the building. The same survey indicates that the Site included cesspools, which were on the west-side of the property north of the building, for septic and wastewater (detergent wash) disposal.

Inspection records on-file with the Department dated 1978 indicated that all wastes were handled in a way to minimize spillage into the floor drains. Inspection records on-file with the Department dated 1979 indicated that a floor drain was utilized within the eastern portion of the building (where TCE was stored and applied). The floor drain was identified to discharge to an exterior underground injection well north of the building. Additionally, the report detailed the on-site sanitary system to include three covers that were inferred by NCDH to correlate to three cesspools. A surface discharge of about one gallon of an unknown petroleum substance was noted on the southeast corner of the Site.

Inspection records on-file with the Department dated 1998 indicated that the Site utilized no on-site underground injection wells.

The NCDH files included a NYSDEC Part 360 application dated 1978 to hold and haul hazardous waste. Said permit was to replace a previously issued SPDES permit. A copy of the SPDES permit was included. Subsequently filed Part 360 reporting forms indicated that the facility terminated its use of TCE in 1979.

The NCDH files included a letter from the USEPA dated 1990 that indicated that the Site utilized underground injection wells for waste water disposal. The letter further advised that all injection wells utilized at the Site would have to be abandoned.

FOIA obtained records from the Nassau County Fire Commission indicated that the Site facilitated one ten-thousand gallon capacity underground diesel oil storage tank (installed in 1972), two four-thousand gallon capacity underground diesel oil storage tanks (installed in 1963), and one four-thousand gallon capacity underground gasoline storage tank (installed in 1966). The records indicated that the tanks were abandoned in-place in 1990.

FOIA obtained records from the Town of North Hempstead Building Department indicated that the Site was originally developed in 1956. An extension, which developed the property to its current configuration, was added to the building in 1966. A fire, which destroyed the west side of the building, occurred late in the 1980s.

The plans for the extension performed in 1966 included detailed scaled drawings of the interior drainage systems. Said systems included a floor drain in the eastern portion of the building that discharged to an exterior underground injection well located approximately nineteen feet north of the building, and a service pit further west that included a floor drain that discharged to a separate exterior underground injection well located approximately nineteen feet north of the building via a grease trap.

The Building Department records also contained information relating to the installation of one 4,000-gallon capacity underground gasoline storage tank. Said tank was proposed to be installed adjacent to two previously installed 4,000-gallon capacity underground diesel oil storage tanks.

Records on-file with the Town of North Hempstead Assessors Office as compiled by the law firm of Rivkin, Radler and Kremer indicated the following ownership history.

Prior Owner – New Owner	Date of Transfer
Michael Polezzo – Frank Scappatura Subsequently transferred to Frank Scappy Associates, Inc. f/k/a FSR Realty Corp.	1956
Frank Scappy Associates, Inc. f/k/a FSR Realty Corp. – Frank Scappaturra	1977
Frank Scappaturra – 2632 Realty Development Corp.	1994
2632 Realty Development Corp. - Nicolia Industries	1996
Nicolia Industries – 2632 Realty Development Corp.	1998

2.4 Geological Background Study

2.4.1 Subsurface Geology

The geology of Long Island consists of thick deposits of unconsolidated, water bearing sediments resting upon a relatively impermeable, crystalline bedrock surface. The sequence of events that shaped Long Island's geology is not known with certainty, but it probably began with the formation of the original basement rocks in early Paleozoic to Precambrian time more than 400 million years ago. These basement rocks were heated and compressed (metamorphosed) by folding and faulting, producing a rugged, mountainous topography. During the subsequent period ending with the late Cretaceous Epoch 100 million years ago, erosion reduced the land to a nearly planer surface that gently tilted to the southeast.

During the late Cretaceous Epoch (60-100 million years ago), streams brought sediments from the north and the west to the Long Island area on the continental margin, forming a permeable sand layer (Lloyd Sand Member of the Raritan Formation) and overlying clay member (clay member of the Raritan Formation) upon the bedrock surface. After a short period of erosion or non-deposition, thick, permeable beds of river delta clay, sand, and gravel were deposited on the Raritan Formation; these deposits comprise the Magothy Aquifer. Toward the close of the Late Cretaceous period (approximately 60 million years ago), a sand and clay unit (Monmouth Group) of low permeability was deposited in shallow marine waters in the area that now constitutes Long Island's south shore.

A long period of non-deposition, or possibly deposition followed by erosion, occurred after the Cretaceous era. Geologic activities during this time left few sedimentary traces, but streams flowing across Long Island cut deep valleys into the Magothy. It was not until late Pleistocene (Wisconsinian) glaciation- some 20 to 200 thousand years ago- that there were any significant additions to Long Island's geologic record. Valleys were filled and the other deposits were almost completely buried by glacial deposits. Prior to the southward movement of the Pleistocene ice sheets to Long Island, an extensive clay unit (Gardiners Clay) was deposited in shallow marine and brackish waters along the shores of what is now Suffolk County. This unit rested upon the Magothy and Monmouth Group, and acted as a confining layer. The northern portions of the Gardiners were subsequently eroded by advancing ice and glacial meltwaters, and Gardiners Clay beds are now found only in the south shore area.

In the area of the Site the bedrock exists at an elevation of approximately seven hundred feet below sea level. The top of the Raritan confining unit exists at an elevation of five hundred feet below sea level (Smolensky and Feldman, 1988). The top of the Magothy Aquifer exists at an elevation of approximately 30 feet above sea level. There is no confining layer with extensive horizontal continuity overlying the Magothy Aquifer. In many areas of Westbury and Hicksville there is no confining layer between the Magothy and Glacial Aquifers. They are only differentiated by their hydraulic conductivities (50

vs. 270 ft/day) (Franke and Cohen, 1972). Localized clay lenses are present within this area of the Magothy Aquifer, but their location and extent have not been delineated.

2.4.1.1 Topography

The Pleistocene glaciation created the hilly Ronkonkoma moraine along Long Island's "spine" and south fork, and the Harbor Hill Moraine along the North shore and the North fork. Erosion of these morainal deposits (as the glacier melted away from Long Island) created extensive outwash plains of sand and gravel in the intermorainal area and south to the Atlantic Ocean. These highly permeable deposits comprise the upper glacial aquifer and represent the majority of Long Island's surficial sediments. Some local confining clay units were also formed from glacial materials in intermorainal lakes and tidal lagoons. Since the end of glaciation, about 12,000 years ago, Holocene beach and marsh deposits have been formed along the marine edge, and within stream corridors and ponds.

The elevation of the Site, as presented on the United States Geologic Survey (USGS), Hicksville Quadrangle Map, approximates one hundred twenty (120) feet above sea level. The USGS Map, which was base dated 1943, field checked in 1967, and photorevised in 1979, did not depict a structure on the Site (the property is within an area in which only landmark buildings were mapped).

2.4.1.2 Soil Component Identification

Nassau County is divided into ten general soil units, or groups of soils geographically associated in a characteristic repeating pattern, according to the Soil Survey of Nassau County, New York (U.S. Department of Agriculture, U.S. Soil Conservation Service). The general soil component of the Site, as defined by this publication, is the *Urban Land Association*. This Association consists of dominantly nearly level or gently sloping areas that are covered by buildings, roads, sidewalks, and parking lots on plains and low hills.

The Soil Survey also describes detailed soil units that each represent an area on the landscape consisting of one or more soils for which the unit is named. The detailed

component of the Site is identified by this Survey as the *Urban Land-Hempstead Complex (Uh).* This soil type consists of urbanized areas and very deep, well-drained soils on nearly level plains. Slope ranges from 0 to 3 percent, and slope is less than 2 percent in most of the areas that are not near drainage-ways or depressions.

This unit is described as a soil complex because the urbanized areas and Hempstead soils are so intermingled that it was not practical to classify them separately. This soil complex is made up of about 75 percent urbanized areas, 20 percent Hempstead soils, and 5 percent other soils. The urbanized areas consist of buildings, roads, driveways, parking lots, and other man-made structures.

Typical sequence, depth and composition of the layers of Hempstead Series Soils are as follows:

Depth In Soil Profile	Soil Description
Surface to 11 inches	black silt loam
11 to 15 inches	dark brown silt loam
15 to 29 inches	yellowish brown silt loam
29 to 33 inches	strong brown very gravelly loamy sand
33 to 60 inches or more	very pale brown sand and gravel

2.4.1 Hydrology

Nassau County relies upon its underlying groundwater as a sole source for drinking water (aquifer). It is therefore necessary for regulatory agencies to monitor the quality of the water. To do this, a complex network of groundwater monitoring wells have been installed by various public and private agencies so that water samples can be acquired and analyzed. The complexity of the monitoring well system stems from Long Island's geologic history, which has different water bearing and retarding levels and zones.

2.4.1.1 Groundwater Characteristics

The Site lies within Hydrogeologic Zone II, The Deep Flow - Magothy Recharge Area (Nassau-Suffolk 208 Study - Water Management Zones in Nassau and Suffolk). Zone II is an area characterized by substantially impaired groundwater quality. The public water supply in the area is available from the Westbury Water District.

Regional groundwater flow direction in the area of the Site is anticipated to be towards the south with a slight western component. The water table is encountered at approximately 54 feet below existing grade.

2.4.1.2 Groundwater Quality

Groundwater quality throughout the NCIA has been impacted by a number of organic compound contaminant plumes. This is detailed on a regional and site basis in **Section 2.2** of this report.

2.5 Conflicts in Data Derived from Background Study

Conflicted data was handled in one of the following manners.

Confirmed erroneous data was not regarded.

Conflict issues were conservatively analyzed to determine if the scope of the FRI resolved questions regarding the their impact on the environmental quality of the Site.

Issues not properly considered are recommended for further consideration in **Section 9** of this report.

The following presents the relevant issues associated with each data conflict.

Data Conflict	Explanation of Conflict	FRI Modifications
1978 registry identifies three cesspools used for septic waste disposal as evidenced from the existence of three access covers to subsurface structures.	FRI investigative scope generates evidence of only one cesspool with one access cover. Second and third access cover determined to be former access to septic tank (modified to be the existing sewer clean-out).	No modifications made for the following reasons. • Former septic tank is a subject of the FRI investigation. • Former cesspool is a subject of the FRI investigation. ▪ The FRI investigation included samples obtained on a grid pattern to address (statistically) unidentified pollution sources.
1978 registry identifies "8-9,000 gallon" cesspools for disposal of truck detergent wash.	FRI investigation has identified only four underground injection wells on the Site.	No modifications made for the following reasons. • Confusion as to the meaning of the registry comment as written (i.e. does it refer to nine cesspools with 8,000 gallon capacity or cesspools with a capacity of 8,000 to 9,000 gallons). ▪ All former and existing underground injection wells identified on-site were the subject of the FRI investigation. • The FRI investigation included samples obtained on a grid pattern to address (statistically) unidentified pollution sources.

Data Conflict	Explanation of Conflict	FRI Modifications
Records from the Nassau County Office of the Fire Marshall indicate the presence of a fourth underground storage tank on the Site.	FRI investigation has identified only three underground storage tanks on the Site.	No modifications made for the following reasons. • The use of the three underground storage tanks found to be abandoned in-place on the Site was determined to have actuated a release of product to the Site. Consequently, the final recommendations presented in this report include the removal of all of the underground storage tanks situated on the Site. • Underground storage tank issues are not the focus of this investigation. • Contaminated media generated from virgin petroleum product releases from underground storage tanks are non-hazardous by definition (6 NYCRR Part 371). • The FRI investigation included samples obtained on a grid pattern to address (statistically) unidentified pollution sources.
NCDH records indicate that kerosene was stored and handled on the Site in the area of the abandoned petroleum storage tanks.	FRI investigation has identified only three underground storage tanks on the Site.	No modifications made for the following reasons. • The use of the three underground storage tanks found to be abandoned in-place on the Site was determined to have actuated a release of product to the Site. Consequently, the final recommendations presented in this report include the removal of all of the underground storage tanks situated on the Site. • Underground storage tank issues are not the focus of this investigation. ▪ Contaminated media generated from virgin

		petroleum product releases from underground storage tanks are non-hazardous by definition (6 NYCRR Part 371). ▪ The FRI investigation included samples obtained on a grid pattern to address (statistically) unidentified pollution sources.
1979 NCDH records indicate the presence of a former storm water drywell north of the building. Said well was identified to be impacted by petrochemical contaminants.	FRI investigation failed to identify any evidence of this structure.	No modifications made for the following reasons. ▪ It is suspected that said drywell was considered in the scope of the FRI (pollution source PS-2). ▪ The FRI investigation included samples obtained on a grid pattern to address (statistically) unidentified pollution sources.
1979 NCDH records indicate that two of the abandoned storage tanks utilized at the Site were used to store waste oil.	NCFM records indicate that said tanks were used to store gasoline and diesel.	No modifications made for the following reasons. • NCFM is the agency delegated to regulate underground storage tanks in the County. • The work performed under the FRI would detect waste oil related contaminants.

3. SITE VISIT

Site visits were conducted from June 15, 1999 to September 1, 1999. The visits included interior and exterior inspections to identify any potential pollution sources. Remote and destructive survey work was also performed to identify subsurface pollution sources. The following provides the dates, the inspection team members and the work performed throughout the Site Visit aspect of the FRI.

Date	Inspection Team	Site Visit Type
June 15, 1999	Richard Parrish	Exterior Inspection
June 21, 1999 through June 24, 1999	Richard Parrish, Keith Franzen, Michelle Zimbieke	Remote Survey
July 20, 1999	Richard Parrish, Kevin Kleaka, Eric Krist	Interior Inspection and Destructive Survey
August 18, 1999	Richard Parrish, Kevin Kleaka	Destructive Survey
August 21, 1999	Richard Parrish, Kevin Kleaka	Exterior Inspection (modifications to sampling plan)
September 1, 1999	Richard Parrish, Kevin Kleaka	Interior Inspection, Exterior Inspection, Destructive Survey

3.1 Interior Inspection

In general, the building was found to consist of a one and partial two-story, steel framed, masonry block building with a 9,450 square foot surface area. The floor was constructed of a poured concrete slab. The interior partition walls were constructed with steel studs covered with 1/2" sheet rock. Natural gas service entered the building from the south side (along Main Street). Sanitary waste generated from the interior plumbing, which was limited to the west-side, traversed conduit that ran beneath the slab along the western-wall of the building. The waste presumably discharged to the sanitary clean-out (former septic tank)

During the inspection, small discontinuities in the floor surface were closely scrutinized to determine their structure and function. Attention was given to all steel conduits that could represent chemical storage tank vent or fill lines. Plumbing features were also closely inspected to determine building effluent paths. Features and discontinuities that were determined to be neither point nor non-point pollution sources were documented

(see **Plate 3** and Photographs 1 through 4). Such features included non-leaching dent pull cups and equipment mounting brackets utilized for automotive body repair apparatus.

There were three tentative pollution sources (TPSs) identified on-site during the interior inspection. Each of the sources was given an alpha index (starting at "A") progressing from west to east. Photographs of each of the structures that were identified are provided in **Appendix A.3** of this report.

Tentative Pollution Source A – Photograph 5
This structure consisted of a circular concrete patch within the floor. The feature had a diameter of approximately twelve inches. It was suspected that said feature represented an abandoned underground injection well or a floor drain leading to a remote underground injection well. Said feature was subjected to a destructive survey (see **Section 3.4**).

Tentative Pollution Source B – Photograph 6
This structure consisted of a large rectangular cut within the floor. The feature measured approximately forty feet in length (running north-south) and four feet in width (east-west). This appeared to be a former engine service pit (used to access the bottom of vehicle mounted engines) that was filled-in and capped with a concrete patch. There were a number of cut-outs and discontinuities within the cap that were potentially utilized as floor drains. Therefore, it was suspected that said feature, as defined by its function, represented an abandoned underground injection well (if it had an earthen invert) or a semi-permeable tank (if it had a concrete invert). Said feature was subjected to a destructive survey (see **Section 3.4**).

Tentative Pollution Source C – Photograph 7
This structure consisted of a large rectangular cut within the floor. The feature measured approximately forty feet in length (running north-south) and five feet in width (east-west). This appeared to be a former engine service pit that was filled-in and capped with a concrete patch. There were a number of cut-outs and discontinuities within the cap that

were potentially utilized as floor drains. Therefore, it was suspected that said feature, as defined by its function, represented an abandoned underground injection well (if it had an earthen invert) or a semi-permeable tank (if it had a concrete invert). Said feature was subjected to a destructive survey (see **Section 3.4**).

Information gathered under the scope of the Government Records Inventory of this FRI regarding this source indicated that this feature had included a drain at its base that discharged to an exterior underground injection well via a grease trap (see **Section 2.3** of this report).

3.2 Exterior Inspection

The Site was determined to include twelve real property tax lots (35-46) that had an aggregate square footage of approximately 35,700. The Site exhibited low topographic relief (less than 1%). The surface area of the Site consisted of exposed soils (approximately 15%), asphalt driveways (approximately 45%), concrete pads (approximately 15%) and the existing building (approximately 25%).

There were four tentative pollution sources identified during the exterior inspection. Each of the sources was given an alpha index (starting with "D").

Tentative Pollution Source D

This feature consisted of a sub-grade access structure that housed the sewer trap. It was identified to be constructed of stacked masonry block, a pre-cast concrete dome and a cast iron access cover. The base of the structure was earthen and existed at a depth of approximately six feet below existing grade. This structure was determined to have formerly been an underground injection well (cesspool) as evidenced by its apparent age and construction. As such, it was identified as a confirmed point pollution source. It appears that said structure was converted to an access chamber for the sewer main trap.

Tentative Pollution Source E

The surface areas of the Site north of the building were noted to be stained by small discharges of chemical substances. It is likely that said stains were generated from the storage and handling of petrochemicals on the Site since its first development. The stained surfaces were permeable and/or semi-permeable. As such, the surface area of the Site was identified as a confirmed non-point pollution source.

Tentative Pollution Source F

This feature was determined to be a concrete septic tank that currently functioned as a sanitary clean-out. Said structure receives wastewater from the building interior and from an open grade structure situated outside of the western bay door (via a sump pump contained therein). The septic tank was constructed of semi-permeable concrete walls. As such, this was identified as a confirmed non-point pollution source.

Tentative Pollution Source G

These features were determined to be capped (with concrete) cast iron access collars to the abandoned underground storage tanks north of the building. As such, the tanks were identified as confirmed point pollution sources.

3.3 Remote Survey

A remote survey plan was performed over the entire exterior surface of the Site to identify any inaccessible TPSs. The survey was performed with a ground penetrating radar (GPR) unit. A complete copy of the survey can be found in **Appendix A.4** of this report.

An interpretation of the GPR imagery obtained from the Site revealed three anomalous features consistent with that of underground storage tanks. Another set of anomalous features was identified to be associated with a sanitary waste disposal system. These features are discussed below.

Three underground storage tanks were located adjacent to the north side of the building. The orientation of two of the tanks appeared to be such that their long axis ran parallel to the building (east-west). The long axis of the third tank ran perpendicular to the building. These tanks were identified as confirmed point pollution sources.

The sanitary waste disposal system appeared to include a conduit leading away from a former septic tank in a northwestern direction to a former cesspool. Scans performed in the area of the septic tank and cesspool failed to identify an overflow pool(s) for the cesspool. The imagery in these areas exhibited no anomalies, suggesting that the area contains undisturbed fill media. The septic tank and conduit were identified as confirmed non-point pollution sources.

3.4 Destructive Survey

A destructive survey was performed on Tentative Pollution Sources (TSPs) A, B and C to generate additional information with respect to their structure and function. The destructive work included using masonry saws, hydraulic hammers, pry bars and subsurface pilot probes to access and investigate each of the TSPs.

With respect to TSP-A, said feature was removed with a hydraulic hammer and pry bar to reveal a square structure with an earthen bottom. This was determined to have formerly functioned as an underground injection well. As such, it was identified as a confirmed point pollution source.

With respect to TSP-B, said feature was accessed with a hydraulic probing tool. The tool penetrated the feature to its base (6 feet below grade) which was determined to be solid (likely concrete). The feature was determined to contain standing water as evidenced by observations of liquid on the probe rods (see Photograph 9). This feature was determined to function as a semi-permeable storage tank. As such, it was identified as a confirmed non-point pollution source.

With respect to TSP-C, said feature was accessed with a masonry cutting saw and a hydraulic probing tool (see Photograph 8). The tool penetrated the feature to its base (7 feet below grade) which was confirmed to be solid (likely concrete). The medium used to backfill the pit was observed to be stained with a petrochemical substance (see Photograph 10). Said substance exhibited a gasoline-like odor. The feature was determined to contain four feet of standing water as evidenced by observations made on the probe rods (rods were wet). This feature was determined to function as a semi-permeable storage tank. As such, it was identified as a confirmed non-point pollution source.

In addition to the destructive survey work performed to provide information with respect to the TSPs revealed from the Site Visit, a second survey was performed respective of the Government Record Inventory (see **Section 2**). In particular, the two underground injection wells that were identified in Building Department Records as being connected to the two interior floor drains were further investigated. The survey involved using a hydraulic probing tool to detect the presence of the well structures (i.e. the block walls and domes) and to obtain subsurface pilot samples. This work was deemed prudent as site plans often vary from as-built conditions.

The survey work performed on the wells identified that each was located approximately fifteen feet north of the building as opposed to the nineteen feet scaled on the site plan. These facts were confirmed by the following.

Subsurface pilot probes installed to a depth of 8 feet at the locations of the injection wells as presented on the site plan (19 feet from the building) were found to consist of compacted undisturbed native soils. Pilot probe samples obtained from a depth of eight feet at the alternate locations (15 feet from the building) were found to contain uncompacted stained organic silts and fine sands indicative of sediment. Furthermore, a substantial void space was encountered at the eastern location, suggestive of an open cavity such as an injection well. Each of these injection wells was considered a confirmed point pollution source.

4. POLLUTION SOURCE SUMMARY

There were five point and six non-point pollution sources identified on-site from the data that were compiled in the Government Record Inventory (**2.2**), the Interior Site Visit (**3.1**), the Exterior Site Visit (**3.2**), the Remote Survey (**3.3**) and the Destructive Survey (**3.4**). Each of these sources was mapped (see **Plate 3**) and considered in the design and implementation of the Subsurface Investigation (see **Section 5**).

The following lists each pollution source, the location of the pollution source, the means in which the source was identified and a code that is used to describe the source throughout the rest of this report.

POINT POLLUTION SOURCES	LOCATION	HOW SOURCE WAS IDENTIFIED	POLLUTION SOURCE CODE
Underground Injection Well	North of the Eastern Wash Bay – Connected to Former Floor Drain	Gov't Record Inventory (2.2); Destructive Survey (3.4)	PS-1
Underground Injection Well	North of the Service Bay – Connected to Service Pit Via Grease Trap	Gov't Record Inventory (2.2); Destructive Survey (3.4)	PS-2
Former Cesspool	North of Westernmost Service Bay	Gov't Record Inventory (2.2); Exterior Inspection (3.2); Remote Survey (3.3)	PS-3
Former Interior Underground Injection Well	Within Building Interior	Interior Inspection (3.1); Remote Survey (3.3); Destructive Survey (3.4)	PS-4
Underground Petroleum Storage Tanks	North of the Building on Eastern Side of Site	Exterior Inspection (3.2); Remote Survey (3.3)	PS-5
NON-POINT POLLUTION SOURCES	LOCATION	HOW SOURCE WAS IDENTIFIED	
Former Septic Tank and Conduit	Adjacent to the Northwest Corner of Building	Gov't Record Inventory (2.2); Exterior Inspection (3.2); Remote Survey (3.3)	PS-6
Abandoned Service Pit – Easternmost	Building Interior	Gov't Record Inventory (2.2);Interior Inspection (3.1); Destructive Survey (3.4)	PS-7
Abandoned Service Pit – Westernmost	Building Interior	Interior Inspection (3.1); Destructive Survey (3.4)	PS-8
Exposed Soils, Stained and Cracked Pavements In Areas Used for the Storage and Handling of Petrochemicals	North of Building	Gov't Record Inventory (2.2); Site Visit (3.2)	PS-9
Concrete Floor Beneath the Former Above Ground TCE Storage Tank	Easternmost Portion of the Building	Gov't Record Inventory (2.2)	PS-10
Exposed Soil Subjected to Petrochemical Discharge	Adjacent to Southeast Corner of Building	Gov't Record Inventory (2.2)	PS-11

5. SUBSURFACE INVESTIGATION

Subsurface investigation tasks were performed to generate data on the environmental quality of the Site. The tasks included the sampling and laboratory analysis of soil and groundwater samples obtained from the Site. The tasks were performed over a period of 15 days from September 28, 1999 to October 28, 1999. The following lists the dates and corresponding activities performed as compiled from the Site Field Log (see **Appendix A.5**).

Date	Activities Performed
9/28/99	Pre-sampling launch meeting.
9/28/99	Utility mark-outs.
9/29/99	Final launch meeting. Survey of grid system.
9/30/99	Establishment of safety procedures. Soil sampling with Geoprobe.
10/1/99	Soil sampling with Geoprobe.
10/4/99	Soil sampling with Geoprobe.
10/12/99	Established security measures. Soil sampling with Geoprobe.
10/13/99	Soil sampling with Geoprobe.
10/14/99	Soil sampling with Geoprobe.
10/18/99	Groundwater monitoring wells installed.
10/19/99	Groundwater monitoring well installed. Measurement of water table. Groundwater sampling with Geoprobe.
10/20/99	Groundwater sampling with Geoprobe.
10/21/99	Groundwater sampling with Geoprobe.
10/22/99	Groundwater sampling with Geoprobe.
10/28/99	Groundwater sampling with Geoprobe. Monitoring well development and sampling.

All of the tasks were performed in conformance with the Health and Safety Plan approved in the FRI Work Plan.

The following sections detail the work that was performed to address each of the 11 Pollution Sources (PS) identified in **Section 4** of this report.

5.1 On-Site Point Pollution Sources

There were five point pollution sources identified from the Site Background Study (**Section 2**) and Site Visit (**Section 3**). Using a Geoprobe hydraulic probing tool, the following subsurface investigative activities were performed with respect to each of the sources. The analysis performed on each of the media samples is summarized in **Section**

5.4 of this report. Each of the sample locations is represented on **Plate 4**. Analytical results are presented in **Table 1**.

5.1.1 PS-1 (Underground Injection Well North of Eastern Wash Bay)

To evaluate the impact of this source on Site soil and groundwater quality, soil samples were secured from its center at three depths extending to forty-seven feet below existing grade (BEG). Said sampling location was designated GP-009. Samples secured from this location were secured at depths of 10 to 18 feet BEG, 30 to 32 feet BEG, and 45 to 47 feet BEG for subsequent laboratory analysis. Additionally, a groundwater sample, identified as sample GP-028-GW01, was secured from the saturated soil 54-58 feet below the center of the injection well.

5.1.2 PS-2 (Underground Injection Well North of Service Bay with Service Pit)

To evaluate the impact of this source on Site soil and groundwater quality, soil samples were secured from its center at three depths extending to forty-seven feet BEG. Said sampling location was designated GP-012. Samples secured from this location were secured at depths of 15 to 17 feet BEG, 30 to 32 feet BEG, and 45 to 47 feet BEG for subsequent laboratory analysis. Additionally, a groundwater sample, identified as sample GP-027-GW01, was secured from the saturated soil 54-58 feet below the center of the injection well.

5.1.3 PS-3 (Former Cesspool)

To evaluate the impact of this source on Site soil and groundwater quality, soil samples were secured from its center at three depths extending to forty-seven feet BEG. Said sampling location was designated GP-010. Samples secured from this location were secured at depths of 15 to 17 feet BEG, 30 to 32 feet BEG, and 45 to 47 feet BEG for subsequent laboratory analysis. Additionally, a groundwater sample, identified as sample GP-024-GW01, was secured from the saturated soil 54-58 feet below the center of the cesspool.

Table 1: Point Data Summary (1 of 7)

Volatile Organic Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-009-SS10	GP-009-SS30	GP-009-SS45	GP-010-SS15	GP-010-SS30	GP-010-SS45	GP-011-SS15	GP-011-SS30	GP-011-SS45	GP-012-SS15	GP-012-SS30	GP-012-SS45
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:												
Dichlorodifluromethane	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	U	U	U
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U
2-Chloroethyl Vinyl Ether	U	U	U	U	U	U	25	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U	U	U	U	U	U	U	U
Acetone	U	U	U	U	U	8.2	U	U	U	U	24	18
Acrolein	U	U	U	U	U	U	U	U	U	U	U	U
Acrylonitrile	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	3800	U	U	U	U	U	U	U	U	U	U	U
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	43800E	8	3.8	U	U	U	13.0	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U	U	U
Dibromoethane	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U	3.3	4.9	U	U
Toluene	89100E	400	8.6	U	3.4	2.9	30.0	U	U	8.9	U	U
Trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	U	U	U
Vinyl Acetate	U	U	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 1: Point Data Summary (2 of 7)

Volatile Organic Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-009-SS10	GP-009-SS30	GP-009-SS45	GP-010-SS15	GP-010-SS30	GP-010-SS45	GP-011-SS15	GP-011-SS30	GP-011-SS45	GP-012-SS15	GP-012-SS30	GP-012-SS45
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:												
Tetrachloroethene	1200	4.8	U	U	U	U	U	U	U	U	U	U
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	62900E	U	7.5	U	2.5	U	13	U	4.9	4.6	8	U
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	110	U	U	U	U	U	U	U	U	U	U
1,3,5-Trimethylbenzene	160700E	810E	2.6	1400	U	U	4.2	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorotoluene	9500	570E	U	U	U	U	U	U	U	U	U	U
2-Hexanone	U	U	U	U	U	U	U	U	U	U	U	U
4-Chlorotoluene	9100	U	U	U	U	U	U	U	U	U	U	U
4-Isopropyltoluene	14200	100	U	720	U	U	U	U	U	U	U	U
Bromobenzene	U	U	U	U	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	39800E	360E	2.0	U	U	U	6.1	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	U	U	U
Isopropylbenzene	16000	180	U	U	U	U	U	U	U	U	U	U
m+p-Xylenes	154800E	710E	8.3	U	U	U	27	U	U	8	U	U
Napthanlene	47100E	U	U	720	U	U	5	U	U	U	U	U
n-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U
o-Xylene	68900E	690E	3.3	U	3.7	3.1	8.5	U	U	2.5	U	U
sec-Butylbenzene	10900	U	U	U	U	U	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U	U	U	U	U	U
tert-Butylbenzene	U	7	U	U	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 1: Point Data Summary (3 of 7)

Semi-Volatile Organic Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-009-SS10	GP-009-SS30	GP-009-SS45	GP-010-SS15	GP-010-SS30	GP-010-SS45	GP-011-SS15	GP-011-SS30	GP-011-SS45	GP-012-SS15	GP-012-SS30	GP-012-SS45
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Semi-Volatiles:												
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	U	U	U	U
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	U	U	U	U
2-Chloronapthalene	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	1600	U	U	U	U	U	U	U	U	U	U	U
2-Nitroaniline	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroaniline	U	U	U	U	U	U	U	U	U	U	U	U
4-Chloroaniline	U	U	U	U	U	U	U	U	U	U	U	U
4-Chlorophenyl ether	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	U	U	U	U	U	U	U	U	U	U	U	U
Acenapthene	U	U	U	U	U	U	U	U	U	U	U	U
Bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	U	U	U	U
Bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	U	U	U	U
Bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	U	U	U	U	U	U	U	U	U	U	U	U
Diethylphtalate	U	U	U	U	U	U	U	U	U	U	U	U
Dimethylphtalate	U	U	U	U	U	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U	U	U	U
Hexachloroethane	U	U	U	U	U	U	U	U	U	U	U	U
Hexaclorocyclopentadiene	U	U	U	U	U	U	U	U	U	U	U	U
Isophorone	U	U	U	U	U	U	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitroso-di-n-Propylamine	U	U	U	U	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 1: Point Data Summary (4 of 7)

Semi-Volatile Organic Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-009-SS10	GP-009-SS30	GP-009-SS45	GP-010-SS15	GP-010-SS30	GP-010-SS45	GP-011-SS15	GP-011-SS30	GP-011-SS45	GP-012-SS15	GP-012-SS30	GP-012-SS45
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Semi-Volatiles:												
Fluorene	U	310	U	U	U	U	U	U	U	U	U	U
1,2-Diphenylhydrazine	U	U	U	U	U	U	U	U	U	U	U	U
3,3-Dichlorobenzidine	U	U	U	U	U	U	U	U	U	U	U	U
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	U	U	U	U
4-Nitroaniline	U	U	U	U	U	U	U	U	U	U	U	U
Anthracene	U	U	U	U	U	U	U	U	U	U	U	U
Benzo-a-Anthracene	220	40	U	U	U	U	U	U	U	U	U	U
Benzo-a-Pyrene	U	J	U	U	U	U	U	U	U	U	U	U
Benzo-b-Fluoroanthene	U	J	U	U	U	U	U	U	U	U	U	U
Benzo-g,h,i-Perylene	U	U	U	U	U	U	U	U	U	U	U	U
Benzo-k-Fluoroanthene	U	J	U	U	U	U	U	U	U	U	U	U
Bis(2-Ethylhexyl)Phthalate	1900	110	U	1200	U	U	U	U	U	J	U	U
Butylbenzylphthalate	U	U	U	U	U	U	U	U	U	U	U	U
Carbazole	U	U	U	U	U	U	U	U	U	U	U	U
Chrysene	280	49	U	U	U	U	U	U	U	U	U	U
Dibenzo-a,h-Anthracene	U	U	U	U	U	U	U	U	U	U	U	U
Di-n-Butylphthalate	U	U	U	U	U	120	U	U	U	U	U	U
Di-n-Octylphthalate	U	U	U	42	U	U	U	U	U	U	U	U
Fluoranthene	2100	97	34	61	U	U	U	U	U	59	U	U
Hexaclorobenzene	U	U	F	U	U	U	U	U	U	U	U	U
Indeno(1,2,3-c,d)Pyrene	U	U	U	U	U	U	U	U	U	U	U	U
m.p-Cresol	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	U	U	U	U
o-Cresol	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	U	370	35	110	U	U	U	U	U	U	U	U
Pyrene	1000	120	U	87	U	U	U	U	U	75	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 1: Point Data Summary (5 of 7)

Inorganic and TPH Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-009-SS10	GP-010-SS15	GP-011-SS15	GP-012-SS15
Unit	Mg/Kg	Mg/Kg	Mg/Kg	Mg/Kg
Inorganics:				
Alumimium	993	609	712	U
Antimony	U	U	U	U
Arsenic	4.3	U	1.2	U
Barium	124	U	U	U
Beryllium	2.5	U	U	U
Cadmium	4.3	0.85	U	U
Calcium	1600	U	U	U
Chromium	U	3.1	12.9	U
Cobalt	U	U	U	U
Copper	90	17.8	6.2	U
Iron	4040	1800	3680	28.6
Lead	273	8.6	1.5	U
Magnesium	1260	U	U	U
Manganese	40	5.4	42.4	U
Mercury	U	U	U	U
Nickel	388	U	U	U
Potassium	U	U	U	U
Selenium	U	U	U	U
Silver	U	U	U	U
Sodium	U	U	U	2510
Thallium	U	U	U	U
Vanadium	1810	U	U	U
Zinc	62	35.2	4	U
Cyanide	U	U	U	U
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Total Petroleum Hydrocarbons:	3670	1520	41	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 1: Point Data Summary (6 of 7)

Volatile and Semi-Volatile Organic Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-013-SS8	GP-013-SS12	GP-014-SS8	GP-014-SS12	GP-015-SS8	GP-015-SS12	GP-016-SS8	GP-016-SS12	GP-017-SS8	GP-017-SS12	GP-018-SS8	GP-018-SS12	GP-019-SS8	GP-019-SS12	GP-020-SS8	GP-020-SS12
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:																
1,2,4-Trimethylbenzene	U	U	5.3	74	U	960	12300	20500	330	12700	U	8700	5.8	19900	5	1400
1,3,5-Trimethylbenzene	U	5600	2.3	90	U	7100	6900	8000	390E	6600	2400	7100	3	6400	U	560E
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	820	U	U	U	U	U	U	U	U
Isopropylbenzene	U	U	U	U	U	U	U	460	U	2100	U	U	U	610	U	U
m+p-Xylenes	U	1400	U	13	U	U	2800	13200	200	U	460	2000	2.7	6800	2.9	230
MTBE	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Napthalene	U	2000	U	U	U	U	2100	U	U	U	U	U	U	U	U	U
n-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
n-Propylbenzene	U	U	U	U	U	U	U	1700	U	U	U	U	U	1800	U	U
o-Xylene	U	1400	U	14	U	680	3900	8800	310E	2500	580	1900	2.1	4200	U	210E
sec-Butylbenzene	U	U	U	U	U	U	U	570	U	U	U	530	U	1700	U	U
TBA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-Butylbenzene	U	10600	U	U	U	U	U	U	U	U	1200	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U	26	U	U	U	U	510	U	3.3
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Semi-Volatiles:																
Pyrene	U	150	U	U	120	U	170	120	230	230	480	U	U	310	U	120
Acenaphthene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthlyene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Anthracene	U	U	U	U	U	U	U	U	U	200	U	U	U	U	U	U
Benzo(a)Anthracene	U	U	U	U	U	U	U	U	U	U	150	570	U	U	U	U
Benzo(a)Pyrene	U	U	U	U	U	U	U	U	U	U	130	440	U	U	U	U
Benzo(b)Fluoranthene	U	U	U	U	U	U	U	U	U	U	U	400	U	U	U	U
Benzo(g,h,I) Perylene	U	U	U	U	U	U	U	U	U	U	U	150	U	U	U	U
Benzo(k)Fluoranthene	U	U	U	U	U	U	U	U	U	U	140	460	U	U	U	U
Chrysene	U	U	U	U	U	U	U	U	U	U	160	550	U	U	U	U
Dibenz(a,h)Anthracene	U	U	U	U	U	U	U	U	U	U	U	490	U	46	U	U
Fluoranthene	U	U	U	U	U	U	U	U	U	160	350	1300	U	920	U	360
Fluorene	U	290	U	U	U	84	400	160	U	770	U	85	U	120	U	U
Indeno(1,2,3-cd) Pyrene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Napthalene	U	910	U	U	U	U	1500	870	U	U	U	1300	U	2700	U	360
Phenanthrene	U	220	U	U	U	57	440	300	U	1300	320	1600	U	1400	U	610

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 1: Point Data Summary (7 of 7)

Volatile Organic Groundwater Analysis

Westbury, New York

Site 01-30-043S

Sample ID	GP-24-GW01	GP-25-GW01	GP-27-GW01	GP-28-GW01
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:				
1,1,1-Trichloroethane	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U
1,1-Dichloroethane	U	U	U	U
1,1-Dichloroethene	U	U	U	U
1,2-Dichlorobenzene	U	U	11	U
1,2-Dichloroethane	U	U	U	U
cis-1,2-Dichloroethene	U	U	31	U
1,2-Dichloropropane	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U
2-Chloroethyl Vinyl Ether	U	U	U	U
Benzene	U	U	2.8	U
Bromochloromethane	U	U	U	U
Bromodichloromethane	U	U	U	U
Bromoform	U	U	U	U
Bromomethane	U	U	U	U
Carbon Tetrachloride	U	U	U	U
Chlorobenzene	U	U	U	U
Chloroethane	U	U	U	U
Chloroform	U	U	U	U
Chloromethane	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U
Ethylbenzene	U	U	81	U
m+p Xylenes	U	U	98	U
Methylene Chloride	U	U	U	U
o-Xylene	U	U	75	U
Tetrachloroethene	U	U	U	U
Toluene	U	1.4	91	U
Trans-1,2-Dichloroethene	U	U	U	U
trans-1,3-Dichloropropene	U	U	U	U
Trichloroethene	U	U	U	U
Trichlorofluoromethane	U	U	U	U
Vinyl Chloride	U	U	J	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

5.1.4 PS-4 (Former Interior Underground Injection Well)

To evaluate the impact of this source on Site soil and groundwater quality, soil samples were secured from its center at three depths extending to forty-seven feet BEG. Said sampling location was designated GP-011. Samples secured from this location were secured at depths of 15 to 17 feet BEG, 30 to 32 feet BEG, and 45 to 47 feet BEG for subsequent laboratory analysis. Additionally, a groundwater sample, identified as sample GP-025-GW01, was secured from the saturated soil 54-58 feet below the center of the injection well.

5.1.5 PS-5 (Underground Storage Tanks)

To evaluate the impact of these sources on Site soil quality, soil samples were secured from locations adjacent to the walls of each tank from two depths. As two of the tanks were positioned end-to-end, and were immediately adjacent to the building, samples were obtained from only two of their four walls. The sampling locations installed around the tanks were designated GP-013, GP-014, GP-015, GP-016, GP-017, GP-018, GP-019 and GP-020. Samples secured from these locations were secured at depths of 8 to 10 feet BEG and 12 to 14 feet BEG for subsequent laboratory analysis.

5.2 On-Site Non-Point Pollution Sources

There were 6 non-point pollution sources identified from the Site Background Study (**Section 2**) and Site Visit (**Section 3**). Using a Geoprobe hydraulic probing tool and groundwater monitoring wells installed with a hollow stem auger, the following subsurface investigative activities were performed with respect to each of the sources. As many of the sources were investigated through a study of Site groundwater quality, many of the sample locations served to provide data on multiple sources. The analysis performed on each of the media samples is summarized in **Section 5.4** of this report. Each of the sample locations is represented on **Plate 5**. Analytical results are presented in **Table 2**.

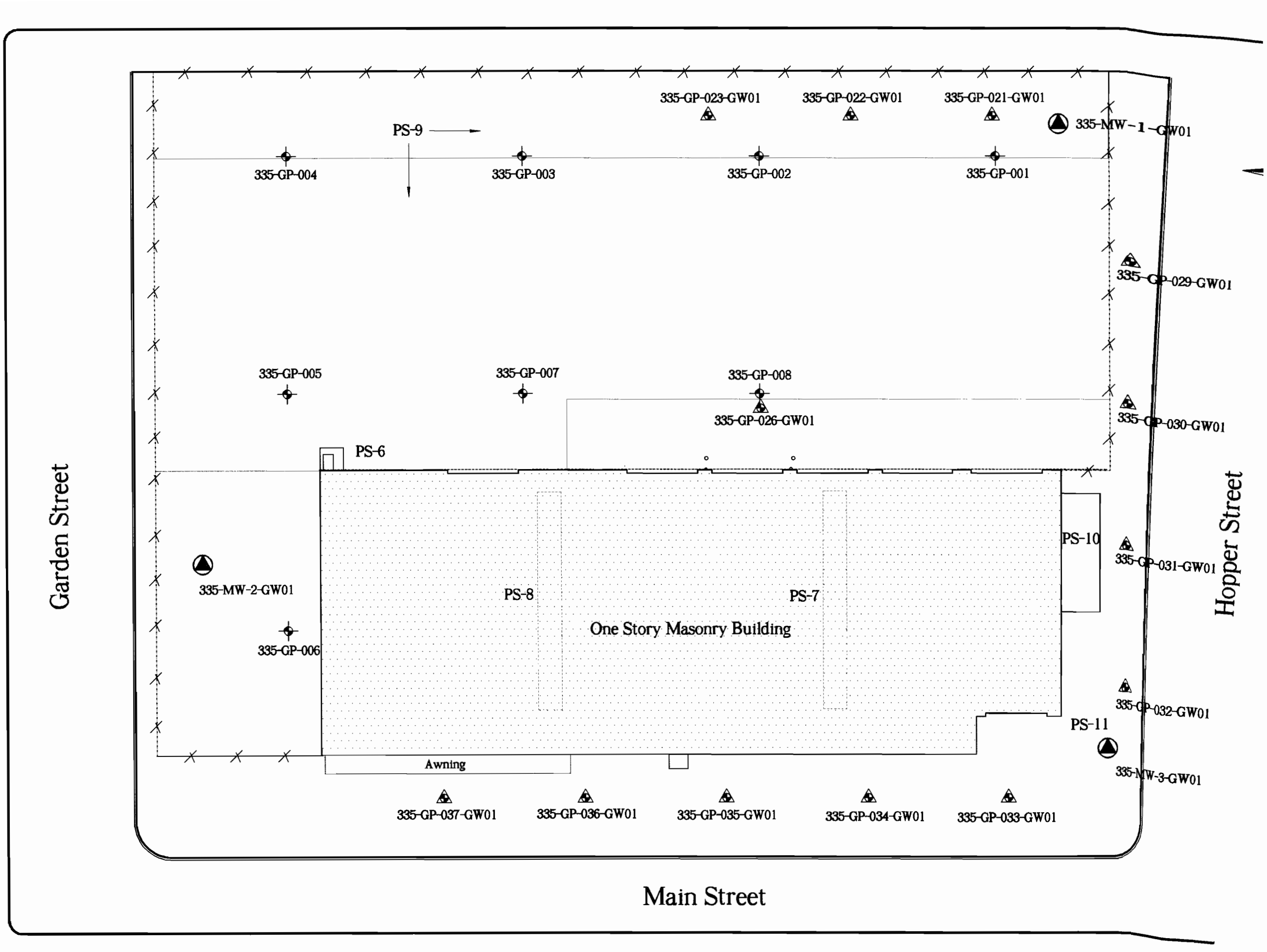

335-GP-023-GW01
335-GP-022-GW01
335-GP-021-GW01
335-MW-1-GW01
PS-9
335-GP-004
335-GP-003
335-GP-002
335-GP-001
335-GP-029-GW01
335-GP-005
335-GP-007
335-GP-008
335-GP-026-GW01
335-GP-030-GW01
PS-6
Garden Street
Hopper Street
PS-10
335-GP-031-GW01
335-MW-2-GW01
PS-8
PS-7
One Story Masonry Building
335-GP-006
335-GP-032-GW01
PS-11
335-MW-3-GW01
Awning
335-GP-037-GW01
335-GP-036-GW01
335-GP-035-GW01
335-GP-034-GW01
335-GP-033-GW01
Main Street

Table 2: Non-Point Data Summary (1 of 6)

Volatile Organic Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-001-SS10	GP-001-SS15	GP-001-SS30	GP-001-SS45	GP-001-SS60	GP-002-SS10	GP-002-SS15	GP-002-SS30	GP-002-SS45
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:									
Dichlorodifluromethane	U	U	U	U	U	U	U	U	U
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U
1,2,4-Triclorobenzene	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	U
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U
2-Chlorotoluene	U	U	U	U	U	U	U	U	U
4-Chlorotoluene	U	U	U	U	U	U	U	U	U
4-Isopropyltoluene	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U
Bromobenzene	U	U	U	U	U	U	U	U	U
Bromochloromethane	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U	U
Dibromoethane	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U
Isopropylbenzene	U	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U	U
Napthanlene	U	U	U	U	U	U	U	U	J
n-Butylbenzene	U	U	U	U	U	U	U	U	U
n-Propylbenzene	U	U	U	U	U	U	U	U	U
sec-Butylbenzene	U	U	U	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U	U	U
tert-Butylbenzene	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 2: Non-Point Data Summary (2 of 6)

Volatile Organic Soil Analysis

Westbury, New York

Site 01-30-043S

Sample ID	GP-003-SS10	GP-003-SS15	GP-003-SS30	GP-003-SS45	GP-004-SS10	GP-004-SS15	GP-004-SS30	GP-004-SS45	GP-005-SS10
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:									
Dichlorodifluromethane	U	U	U	U	U	U	U	U	U
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U
1,1-Dichloropropene	U	U	U	U	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U	U
1,2,4-Triclorobenzene	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	U
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U
1,3-Dichloropropane	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U
2,2-Dichloropropane	U	U	U	U	U	U	U	U	U
2-Chlorotoluene	U	U	U	U	U	U	U	U	U
4-Chlorotoluene	U	U	U	U	U	U	U	U	U
4-Isopropyltoluene	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U
Bromobenzene	U	U	U	U	U	U	U	U	U
Bromochloromethane	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U	U
Dibromoethane	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U	U	U
Isopropylbenzene	U	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U	U
Napthanlene	U	U	U	U	U	U	U	U	U
n-Butylbenzene	U	U	U	U	U	U	U	U	U
n-Propylbenzene	U	U	U	U	U	U	U	U	U
sec-Butylbenzene	U	U	U	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U	U	U
tert-Butylbenzene	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 2: Non-Point Data Summary (3 of 6)

Volatile Organic Soil Analysis

Westbury, New York

Site 01-30-043S

Sample ID	GP-005-SS15	GP-005-SS30	GP-005-SS45	GP-006-SS10	GP-006-SS15	GP-006-SS30	GP-006-SS45	GP-007-SS10
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:								
Dichlorodifluromethane	U	U	U	U	U	U	U	U
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U
1,1-Dichloropropene	U	U	U	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U
1,2,4-Triclorobenzene	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	U	U	28.0	U	U	U	U	U
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U
1,2-Dibromoethane	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	5.5	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	12.0	U	U	U	U	U
1,3-Dichlorobenzene	U	U	J	U	U	U	U	U
1,3-Dichloropropane	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	5.7	U	U	U	U	U
2,2-Dichloropropane	U	U	U	U	U	U	U	U
2-Chlorotoluene	U	U	U	U	U	U	U	U
4-Chlorotoluene	U	U	U	U	U	U	U	U
4-Isopropyltoluene	U	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U
Bromobenzene	U	U	U	U	U	U	U	U
Bromochloromethane	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U
Dibromoethane	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U	U
Isopropylbenzene	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	U	U	U	U	U	U
Napthanlene	U	U	J	U	U	U	U	U
n-Butylbenzene	U	U	U	U	U	U	U	U
n-Propylbenzene	U	U	U	U	U	U	U	U
sec-Butylbenzene	U	U	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U	U
tert-Butylbenzene	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 2: Non-Point Data Summary (4 of 6)

Volatile Organic Soil Analysis

Westbury, New York

Site 01-30-043S

Sample ID	GP-007-SS15	GP-007-SS30	GP-007-SS45	GP-008-SS10	GP-008-SS15	GP-008-SS30	GP-008-SS45	Trip Blank
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:								
Dichlorodifluromethane	U	U	U	U	U	U	U	U
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U
1,1-Dichloropropene	U	U	U	U	U	U	U	U
1,2,3-Trichloropropane	U	U	U	U	U	U	U	U
1,2,4-Triclorobenzene	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	U	U	U	39900E	98400E	8.1	11400	U
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U
1,2-Dibromoethane	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	21200	40800E	J	3000	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U
1,3-Dichloropropane	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U
2,2-Dichloropropane	U	U	U	U	U	U	U	U
2-Chlorotoluene	U	U	U	J	1300	U	U	U
4-Chlorotoluene	U	U	U	J	1200	U	U	U
4-Isopropyltoluene	U	U	U	950	2600	U	J	U
Benzene	U	U	U	U	U	U	U	U
Bromobenzene	U	U	U	U	U	U	U	U
Bromochloromethane	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U	U
Dibromoethane	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	J	U
Hexachlorobutadiene	U	U	U	U	U	U	U	U
Isopropylbenzene	U	U	U	U	U	U	U	U
Methylene Chloride	U	U	J	U	U	U	J	U
n-Butylbenzene	U	U	U	U	U	U	U	U
n-Propylbenzene	U	U	U	U	1200	U	880	U
sec-Butylbenzene	U	U	U	J	2000	U	J	U
Styrene	U	U	U	U	U	U	U	U
tert-Butylbenzene	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U
Napthanlene	U	U	U	U	15800	U	2300	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 2: Non-Point Data Summary (5 of 6)

Volatile Organic Groundwater Analysis

Westbury, New York

Site 01-30-043S

Sample ID	GP-21-GW01	GP-22-GW01	GP-23-GW01	GP-26-GW01	GP-28-GW01	GP-29-GW01	GP-30-GW01	GP-31-GW01	GP-32-GW01	GP-33-GW01
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:										
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	7.5	1.1
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U	U	2.7	U
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	1.6	U	U	37	1.1	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	4.3	U	U	7.2	U	18.5	46.0	40.5	562.4	96.2
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U
2-Chloroethyl Vinyl Ether	U	U	U	U	U	U	U	U	U	U
Benzene	U	U	U	2.9	U	U	4.6	1.9	U	1.4
Bromochloromethane	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	24	U	3	130E	U	U	U
m+p Xylenes	1.5	1.3	U	11	U	10	160E	2	U	U
Methylene Chloride	U	U	U	U	U	2	6.5	7.1	7.3	7.2
o-Xylene	1.1	U	U	7.1	U	5.6	150E	3.7	U	U
Tetrachloroethene	U	U	U	U	U	U	1.4	U	1.5	U
Toluene	2	U	U	1.9	U	11	96	U	U	U
Trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	5.7	1.5	4.7	97	17
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 2: Non-Point Data Summary (6 of 6)

Volatile Organic Groundwater Analysis

Westbury, New York

Site 01-30-043S

Sample ID	GP-34-GW01	GP-35-GW01	GP-36-GW01	GP-37-GW01	MW-1-GW01	MW-2-GW01	MW-3-GW01	GP-FB-GW-10/19	GP-FB-GW-10/20	GP-FB-GW-10/21	GP-TRIP BK
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:											
1,1,1-Trichloroethane	24	U	U	U	U	U	5.3	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	8.6	U	U	U	U	U	1.7	U	U	U	U
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	50	9.6	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	30.1	4	U	U	U	U	334.1	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	U
2-Chloroethyl Vinyl Ether	U	U	U	U	U	U	U	U	U	U	U
Benzene	220E	8.2	U	U	U	U	U	U	U	U	U
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	10	U	U	U	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U	U	U	U	U
Chloromethane	U	U	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	97	64	U	U	U	U	U	U	U	U	U
m+p Xylenes	220E	40	1.2	U	U	U	U	U	U	U	U
Methylene Chloride	8.6	U	7.7	7.7	U	U	U	U	U	U	U
o-Xylene	120E	51	U	U	U	U	U	U	U	U	U
Tetrachloroethene	1.6	U	U	U	U	U	3.8	U	U	U	U
Toluene	190E	41	1.3	U	U	U	U	U	U	U	U
Trans-1,2-Dichloroethene	8.5	U	U	U	U	U	4.4	U	U	U	U
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U	U
Trichloroethene	5	U	U	U	U	U	88	U	U	U	U
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride	3.8	2.6	U	U	U	U	U	U	U	U	U

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

5.2.1 PS-6 (Former Septic Tank and Conduit)

To evaluate the impact of this source on Site groundwater quality, one groundwater sample, identified as MW-2-GW01 was secured from a location hydraulically down-gradient of the source location.

5.2.2 PS-7 (Abandoned Service Pit – Easternmost)

To evaluate the impact of this source on Site groundwater quality, three groundwater samples, identified as GP-034-GW01, GP-035-GW01 and GP-036-GW01 were secured from locations hydraulically down-gradient of the source location. Additionally, three groundwater samples, identified as GP-021-GW01, GP-029-GW01 and GP-030-GW01 were secured from locations hydraulically up-gradient of the source location.

5.2.3 PS-8 (Abandoned Service Pit – Westernmost)

To evaluate the impact of this source on Site groundwater quality, three groundwater samples, identified as GP-035-GW01, GP-036-GW01 and GP-037-GW01 were secured from locations hydraulically down-gradient of the source location. Additionally, three groundwater samples, identified as GP-021-GW01, GP-022-GW01 and GP-023-GW01 were secured from locations hydraulically up-gradient of the source location.

5.2.4 PS-9 (Exposed Soils, Stained & Cracked Pavements)

To evaluate the impact of this source on Site soil and groundwater quality, soil samples were secured from eight locations on the site on a fifty foot square grid at four depth intervals extending to 47 feet BEG. Said sampling locations were designated GP-01, GP-02, GP-03, GP-04, GP-05, GP-06, GP-07 and GP-08. Samples secured from these location were secured at depths of 10 to 12 feet BEG, 15 to 17 feet BEG, 30 to 32 feet BEG, and 45 to 47 feet BEG for subsequent laboratory analysis.

5.2.5 PS-10 (Concrete Floor beneath the Former TCE Storage Tank)

To evaluate the impact of this source on Site groundwater quality, two groundwater samples, identified as GP-034-GW01 and GP-035-GW01 were secured from locations hydraulically down-gradient of the source location. Additionally, two groundwater

samples, identified as GP-030-GW01 and GP-031-GW01 were secured from locations hydraulically up-gradient of the source location.

5.2.6 PS-11 (Exposed Soil Subjected to Petrochemical Discharge)

To evaluate the impact of this source on Site groundwater quality, three groundwater samples, identified as MW-3-GW01, GP-033-GW01 and GP-034-GW01 were secured from locations hydraulically down-gradient of the source location. Additionally, two groundwater samples, identified as GP-031-GW01 and GP-032-GW01 were secured from locations hydraulically up-gradient of the source location.

5.3 Sample and Analysis Plan

All sampling and analysis methodology was performed in accordance with the approved FRI Work Plan. Deviations to the plan are noted as follows.

- The laboratory that was indicated to be used in the work plan was renamed to Chemtech. There were no technical or administrative changes associated with the name change.
- The laboratory did not report all of the 8260 target list analytes in the data summary reports. However, the data is provided on the laboratory quantitation report and was considered appropriately.
- With the approval of the NYSDEC, the Project Manager was changed from George Wright to Richard Parrish.
- With the approval of the NYSDEC, the QA/QC Officer was changed from Richard Parrish to Kevin Kleaka.
- The designated Site Safety Officer was changed from James Mulvey to Eric Krist.
- Minor modifications were made to the Health and Safety Plan to accommodate Site access issues encountered during the performance of the Site Visit and Subsurface Investigation.
- Some sampling locations were moved to accommodate access issues. All changes were approved by the NYSDEC.

5.4 Test Method Summary

5.4.1 FRI Target Volatile List

(USEPA Test Method 8260)

335-GP-001-SS10	335-GP-001-SS15	335-GP-001-SS30
335-GP-001-SS45	335-GP-001-SS60	335-GP-002-SS10
335-GP-002-SS15	335-GP-002-SS30	335-GP-002-SS45
335-GP-003-SS10	335-GP-003-SS15	335-GP-003-SS30
335-GP-003-SS45	335-GP-004-SS10	335-GP-004-SS15
335-GP-004-SS30	335-GP-004-SS45	335-GP-005-SS10
335-GP-005-SS15	335-GP-005-SS30	335-GP-005-SS45
335-GP-006-SS10	335-GP-006-SS15	335-GP-006-SS30
335-GP-006-SS45	335-GP-007-SS10	335-GP-007-SS15
335-GP-007-SS30	335-GP-007-SS45	335-GP-008-SS10
335-GP-008-SS15	335-GP-008-SS30	335-GP-008-SS45
335-GP-Trip Blank		

5.4.2 FRI Target Volatile, Semi-Volatile, Metal and TPH List

(USEPA 8260, 8270BN, 6010 and 8015)

335-GP-009-SS10	335-GP-011-SS15
335-GP-009-SS30	335-GP-011-SS30
335-GP-009-SS45	335-GP-011-SS45
335-GP-010-SS15	335-GP-012-SS10
335-GP-010-SS30	335-GP-012-SS30
335-GP-010-SS45	335-GP-012-SS45

5.4.3 FRI Target Volatile and Semi-Volatile List

(USEPA 8021 and 8270 STARS)

335-GP-013-SS8	335-GP-017-SS8
335-GP-013-SS12	335-GP-017-SS12
335-GP-014-SS8	335-GP-018-SS8
335-GP-014-SS12	335-GP-018-SS12
335-GP-015-SS8	335-GP-019-SS8
335-GP-015-SS12	335-GP-019-SS12
335-GP-016-SS8	335-GP-020-SS8
335-GP-016-SS12	335-GP-020-SS12

5.4.4 FRI Target Volatile List

(USEPA 624)

335-GP-021-GW01	335-GP-022-GW01	335-GP-023-GW01
335-GP-024-GW01	335-GP-025-GW01	335-GP-026-GW01
335-GP-027-GW01	335-GP-028-GW01	335-GP-029-GW01
335-GP-030-GW01	335-GP-031-GW01	335-GP-032-GW01
335-GP-033-GW01	335-GP-034-GW01	335-GP-035-GW01
335-GP-036-GW01	335-GP-037-GW01	335-GP-FB-10/19
335-GP-FB-10/20	335-GP-FB-10/21	335-GP-Trip Blank

6. RESULTS OF INVESTIGATION

6.1 Groundwater Characteristics

The elevation of groundwater was gauged at each monitoring well and recorded. The elevations were used to graphically define the planimetric surface of the water table beneath the Site. The elevations of the top of the casings were surveyed with respect to each other and were based on an arbitrary elevation of 100 feet. The groundwater elevations were based as a function of the depth to water and these elevations. The actual elevations of the tops of the casing were not determined due to the nearest benchmark being inaccessible.

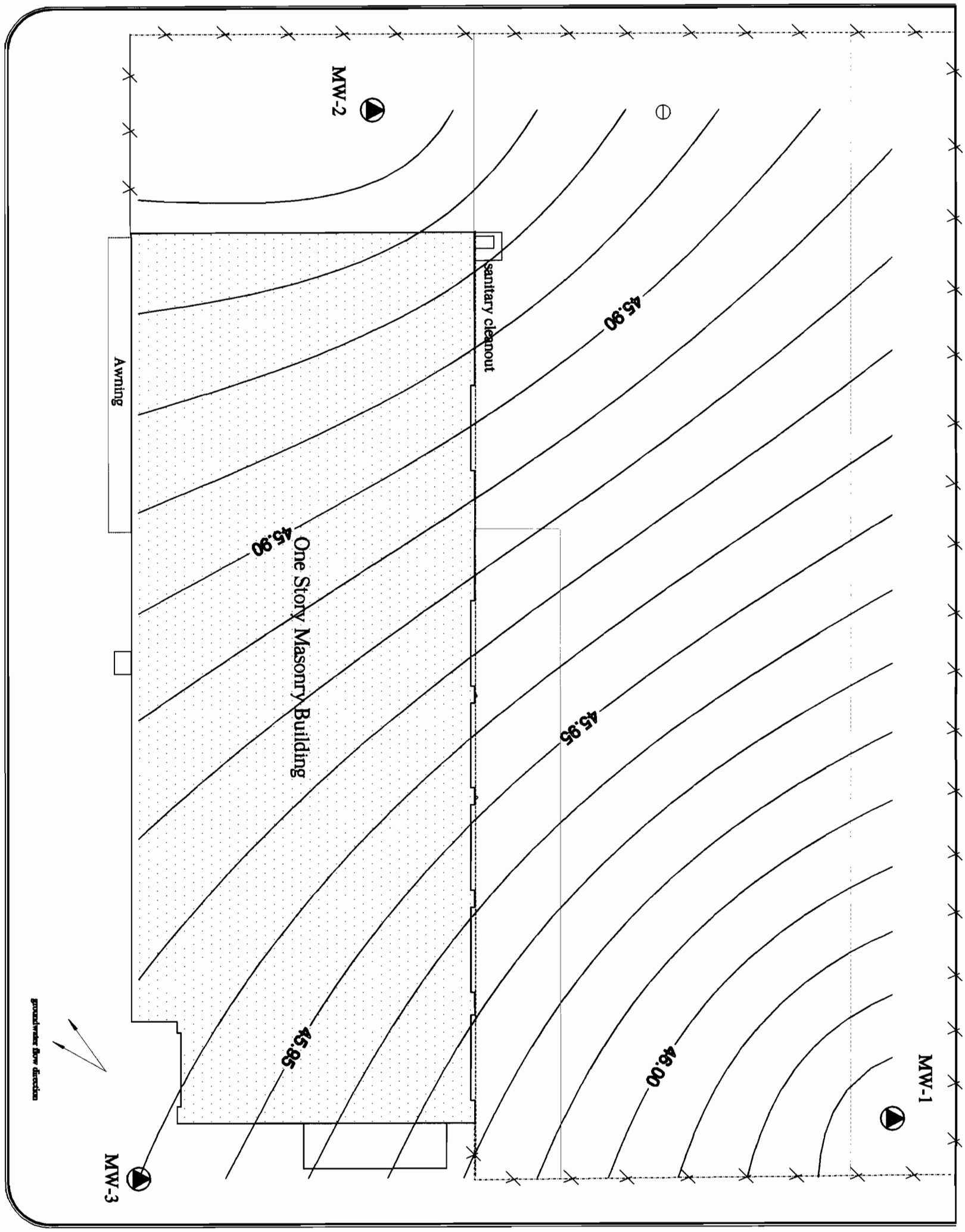
Water-table potentiometric contours were constructed from the measurement of groundwater elevations acquired November 5, 1999, and are presented in **Plate 6**. Based on these contours, the hydraulic gradient was approximated to be 0.00439 ft/ft. The calculated normal to the gradient indicated a **south-southwest** groundwater flow direction.

6.2 Nature and Extent of Contamination

The purpose of this section is to provide a detailed discussion of the nature and extent of organic and inorganic contaminants detected in soil and groundwater at the Site. Discussions evaluating the significance of the contaminant concentrations detected are provided in **Section 8** of this report. **Table 3** provides a comparison of the detected contaminant concentrations against the applicable standards, criteria and guidances (SCGs). The applicable SCGs were based on the media and the contaminant type in accordance with the following.

Media	Contaminant	Applicable SCG
Water	Organics	NYSDEC Technical Operational Guidance Series (TOGS) 1.1.2.
Soil	Organics – Generated from the discharge of petrochemicals to the surface or to injection wells. Organics – Generated from the discharge of virgin petrochemicals from underground	NYSDEC Technical Administrative Guidance Memorandum HWR 95-4046. NYSDEC Spill Technology And Remediation Series (STARS) Memorandum 1.

Garden Street



Note: Groundwater elevations are based on an arbitrary reference elevation of 100 feet.
Groundwater contour intervals are displayed as 0.05 feet.
These contours are based on depth to water measurments taken November 5, 1999.

Main Street

Hopper Street

NORTH

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98-335

Plate 6: Potentiometric Contour Map

Westbury, New York

Legend:
- groundwater probe node
- soil probe node
- monitoring well

scale: 1" = 20'

Garden Street

PS-4 - restoration activities

PS-8 - remedial activities

PS-7 - remedial activities

USTs

PS-5 - remedial activities

UST

PS-1 - remedial activities

PS-11 - approve housekeeping practices

PS-10 - additional investigative activities

Hopper Street

Main Street

NORTH

i.e.

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Plate 8: Areas of Concern Map

Westbury, New York

Legend:

- groundwater probe node
- soil probe node
- monitoring well

scale: 1" = 20'

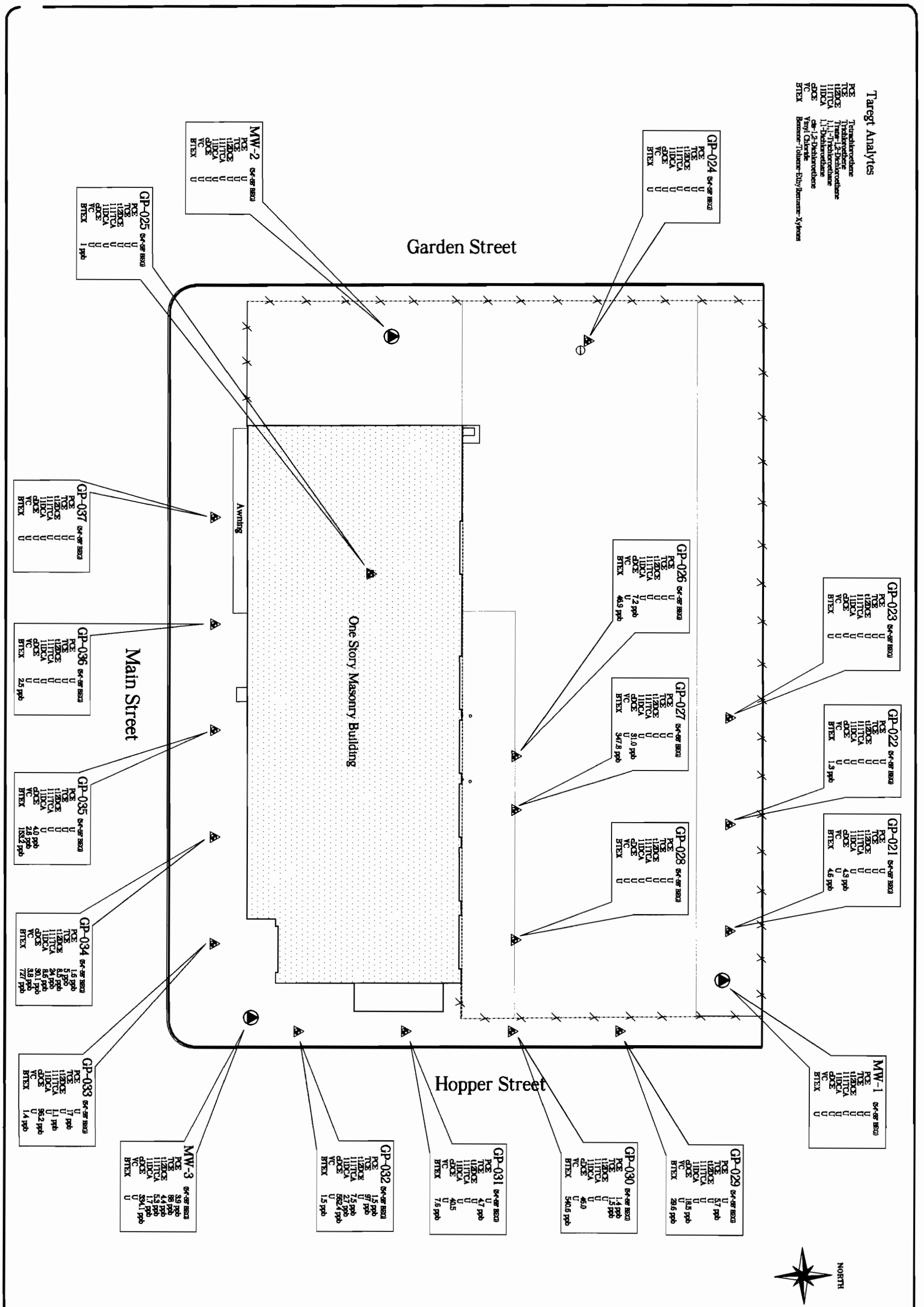

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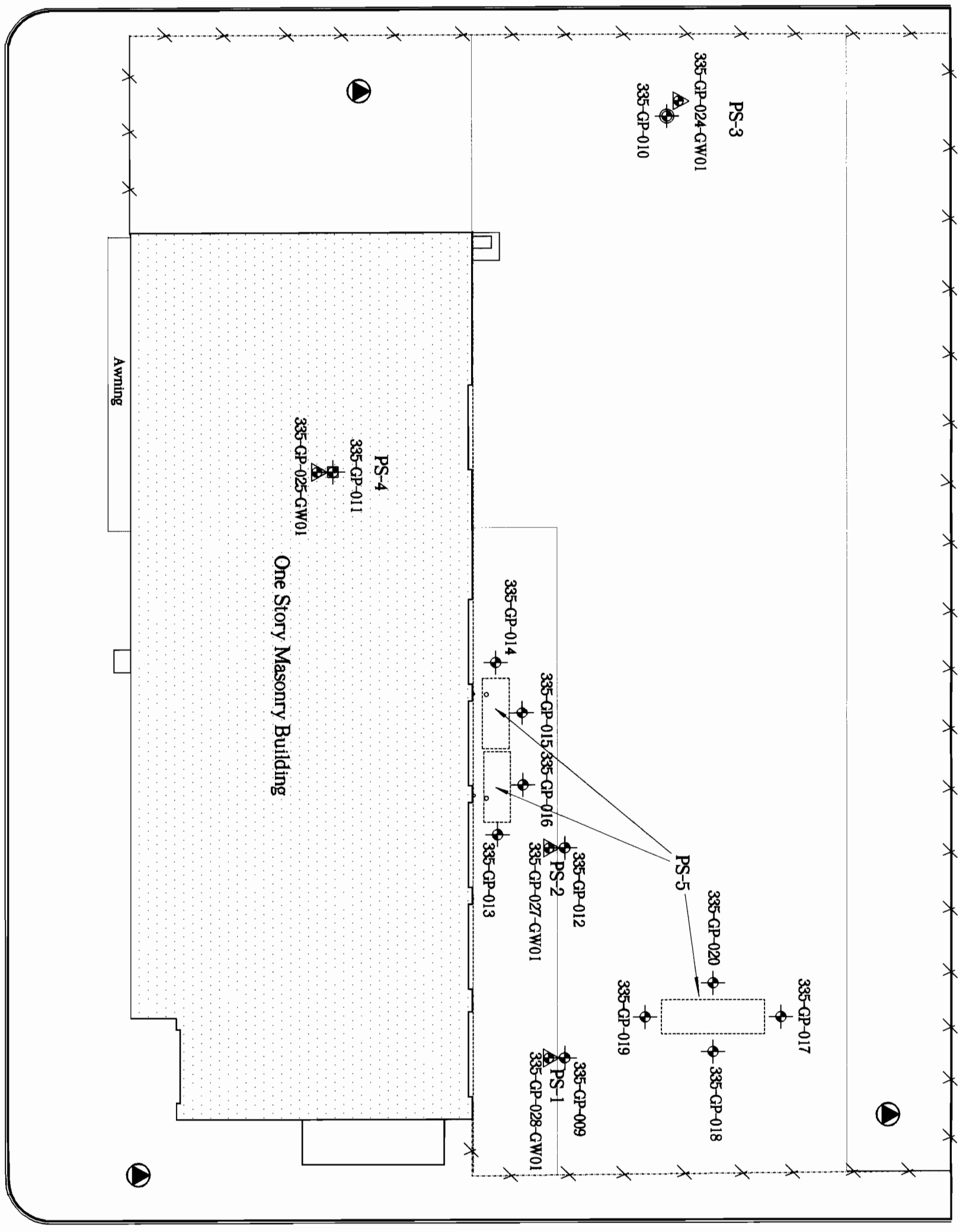
Plate 7: Target Analyte Concentration Map

Westbury, New York

Legend:
- groundwater probe node
- soil probe node
- monitoring well

scale: 1" = 15'

Garden Street



Main Street

Hopper Street

NORTH

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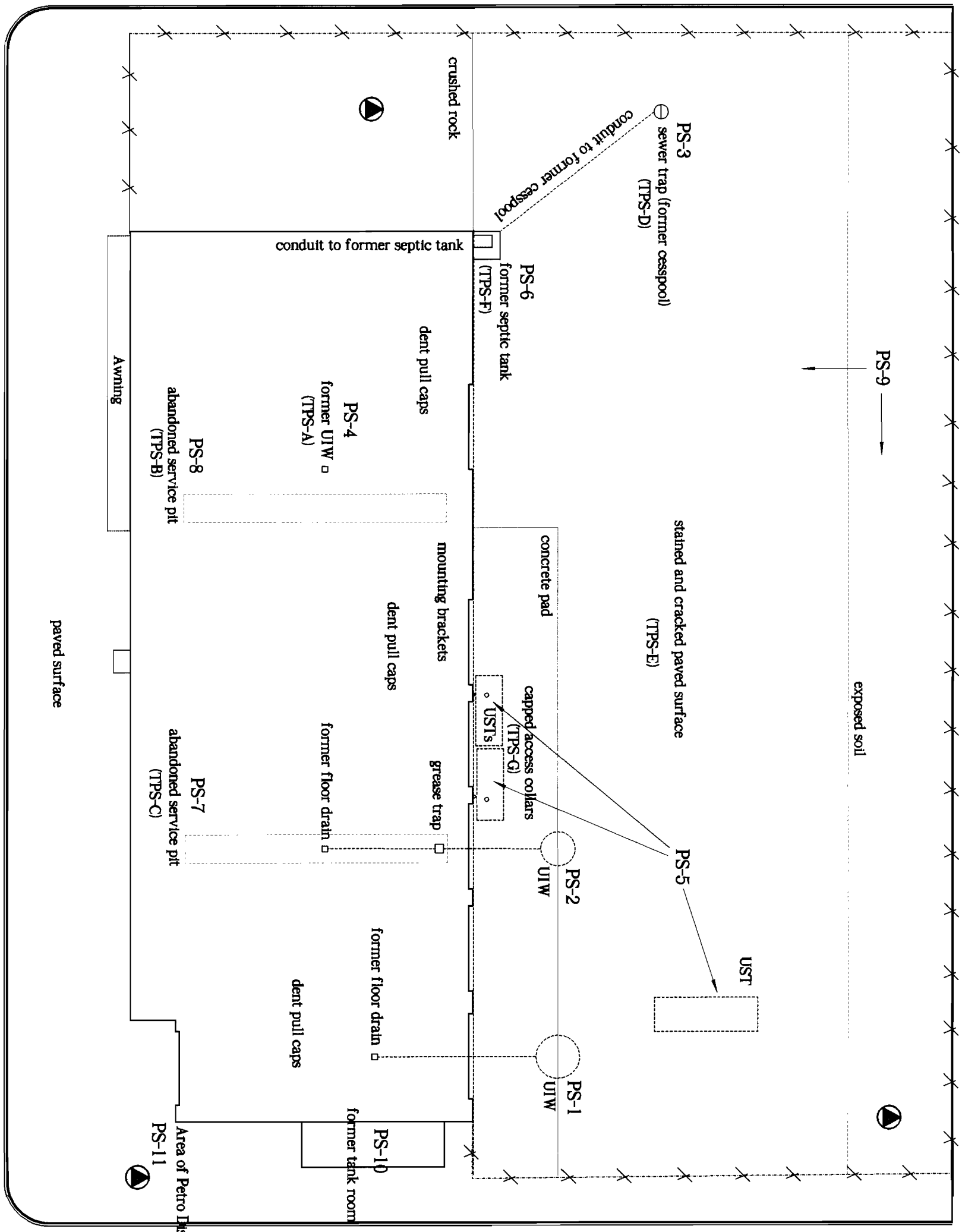
Plate 4: Point Source Investigation

Westbury, New York

Legend:
- groundwater probe node
- soil probe node
- monitoring well

scale: 1" = 20'

Garden Street



Main Street

Hopper Street

NORTH

i.e. **Impact Environmental** *a division of impact environmental consulting, inc.* 1 Village Plaza Kings Park, New York 11754 516.269.8800 TELEPHONE 516.269.1599 FACSIMILE	**98-335** **Plate 3: Pollution Source Map** *Westbury, New York*	**Legend:** groundwater probe node soil probe node monitoring well scale: 1" = 20'

Garden Street

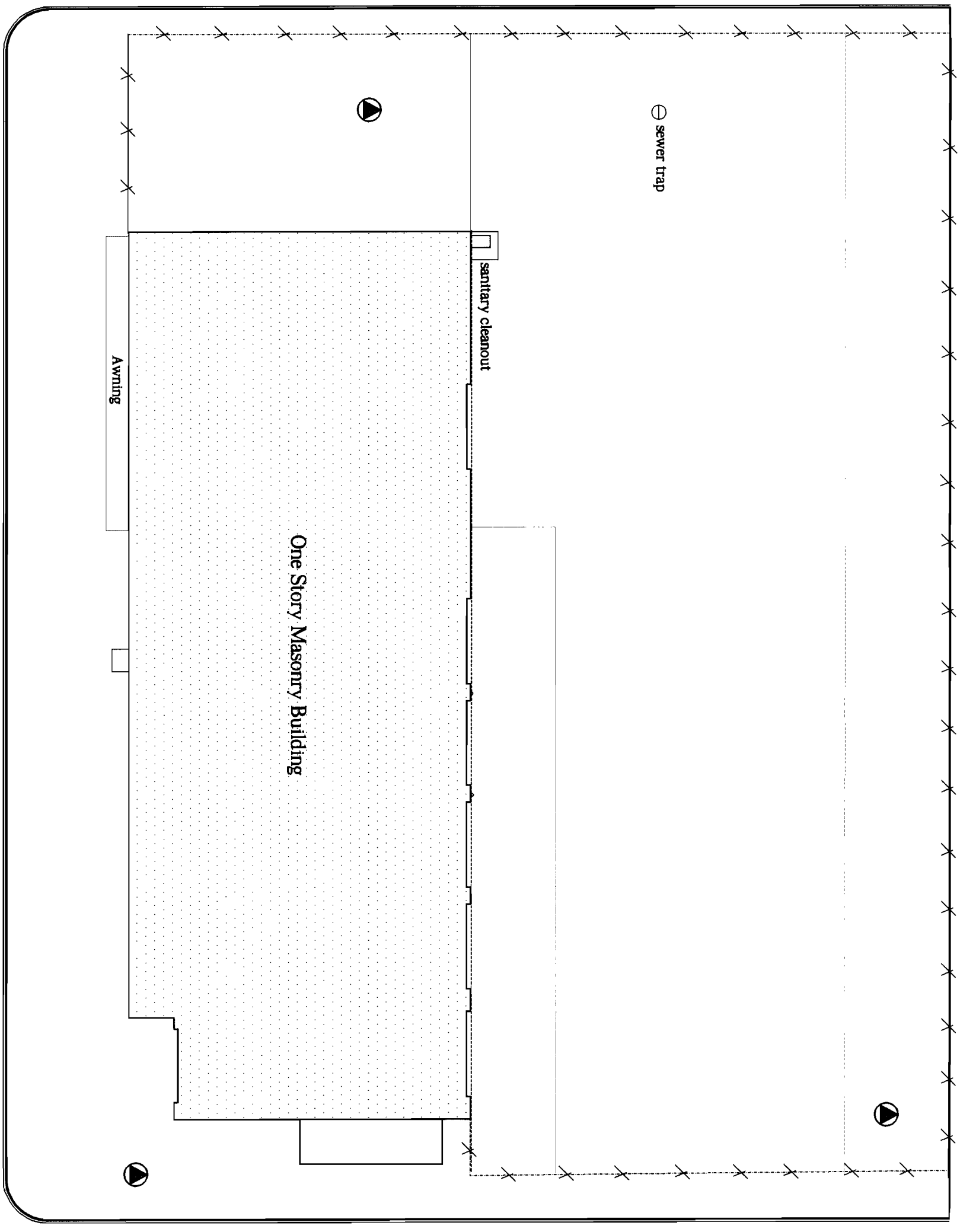


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Plate 2: Site Map

Westbury, New York

Legend:

- groundwater probe node
- soil probe node
- monitoring well

scale: 1" = 20'

Plate 1: Site Location Map, Westbury, New York,

Table 3: Contaminant Concentration and Applicable SCGs (5 of 5)

Organic Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-013-SS8	GP-013-SS12	GP-014-SS8	GP-014-SS12	GP-015-SS8	GP-015-SS12	GP-016-SS8	GP-016-SS12	GP-017-SS8	GP-017-SS12	GP-018-SS8	GP-018-SS12	GP-019-SS8	GP-019-SS12	GP-020-SS8	GP-020-SS12	**Applicable SCG**
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:																	
Ethylbenzene	U	U	U	U	U	U	U	820	U	U	U	U	U	U	U	U	100
1,2,4-Trimethylbenzene	U	U	5.3	74	U	960	12300	20500	330	12700	U	8700	5.8	19900	5.1	1400E	100
1,3,5-Trimethylbenzene	U	5600	2.3	90	U	7100	6900	8000	390E	6600	2400	7100	3.3	6400	U	560E	100
isopropylbenzene	U	U	U	U	U	U	U	460	U	U	U	U	U	610	U	U	100
m+p-Xylenes	U	1400	U	13	U	U	2800	13200	200	2100	460	2000	2.7	6800	2.9	230	200
n-Propylbenzene	U	U	U	U	U	U	U	1700	U	U	U	U	U	1800	U	U	100
o-Xylene	U	1400	U	14	U	680	3900	8800	310E	2500	580	1900	2.1	4200	U	210E	100
Sec-Butlylbenzene	U	U	U	U	U	U	U	570	U	U	U	530	U	1700	U	U	100
tert-Butylbenzene	U	10600	U	U	U	U	U	U	U	U	1200	U	U	U	U	U	100
Toulene	U	U	U	U	U	U	U	U	26	U	U	U	U	510	U	3.3	100
Semi-Volatiles:																	
Anthracene	U	U	U	U	U	U	U	U	U	200	U	U	U	U	U	U	1,000
Benzo[a]anthracene	U	U	U	U	U	U	U	U	U	U	150	570	U	U	U	U	NA
Benzo[a]pyrene	U	U	U	U	U	U	U	U	U	U	130	440	U	U	U	U	NA
Benzo[b]fluoranthene	U	U	U	U	U	U	U	U	U	U	U	400	U	U	U	U	NA
Benzo[g,h,I]perylene	U	U	U	U	U	U	U	U	U	U	U	150	U	U	U	U	NA
Benzon[k]fluoranthene	U	U	U	U	U	U	U	U	U	U	140	460	U	U	U	U	NA
Chrysene	U	U	U	U	U	U	U	U	U	U	160	550	U	46	U	U	NA
Fluorene	U	290	U	U	U	84	400	160	U	770	U	490	U	920	U	360	1000
Fluouranthene	U	U	U	U	U	U	U	U	U	160	350	1300	U	120	U	U	1000
Indeno[1,2,3-cd]pyrene	U	U	U	U	U	U	U	U	U	U	U	85	U	U	U	U	NA
Napthalene	U	910	U	U	U	U	1500	870	U	U	U	U	U	2700	U	360	200
Phenanthrene	U	220	U	U	U	57	440	300	U	1300	320	1300	U	1400	U	610	1000
Pyrene	U	150	U	U	120	U	170	120	230	230	480	1600	U	310	U	120	1000

Sample ID	GP-24-GW01	GP-25-GW01	GP-27-GW01	GP-28-GW01	**SCG**
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:					
Benzene	U	U	2.8	U	0.7
1,2-Dichlorobenzene	U	U	11	U	5.0
Ethylbenzene	U	U	81	U	5.0
m+p Xylenes	U	U	98	U	5.0
o-Xylene	U	U	75	U	5.0
Toluene	U	1.4	91	U	5.0

Shaded box repersents an SCG excedence.

NA: Not Available

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 3: Contaminant Concentration and Applicable SCGs (4 of 5)

Inorganic and TPH Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-009-SS10	GP-010-SS15	GP-011-SS15	GP-012-SS15	**Applicable SCG**	**Background Levels**
Unit	Mg/Kg	Mg/Kg	Mg/Kg	Mg/Kg	Mg/Kg	Mg/Kg
Inorganics:						
Alumimium	993	609	712	U	SB	33000
Antimony	U	U	U	U	SB	NA
Arsenic	4.3	U	1.2	U	7.5 or SB	12
Barium	124	U	U	U	300 or SB	600
Beryllium	2.5	U	U	U	0.16 or SB	1.75
Cadmium	4.3	0.85	U	U	10 or SB	1
Calcium	1600	U	U	U	SB	35,000
Chromium	U	3.1	12.9	U	10 or SB	40
Cobalt	U	U	U	U	30 or SB	60
Copper	90	17.8	6.2	U	25 or SB	50
Iron	4040	1800	3680	28.6	2000 or SB	550,000
Lead	273	8.6	1.5	U	SB	500
Magnesium	1260	U	U	U	SB	5000
Manganese	40	5.4	42.4	U	SB	5,000
Mercury	U	U	U	U	0.1	0.2
Nickel	388	U	U	U	13 or SB	25
Potassium	U	U	U	U	SB	43000
Selenium	U	U	U	U	2 or SB	3.9
Silver	U	U	U	U	SB	NA
Sodium	U	U	U	2510	SB	8000
Thallium	U	U	U	U	SB	NA
Vanadium	1810	U	U	U	150 or SB	300
Zinc	62	35.2	4	U	20 or SB	50
Cyanide	U	U	U	U	NA	NA
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Total Petroleum Hydrocarbons:	3670	1520	41	U	NA	NA

Shaded box repersents an SCG excedence.

NA: Not Available

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 3: Contaminant Concentration and Applicable SCGs (2 of 5)

Volatile Organic Groundwater Analysis

Westbury, New York

Site 01-30-043S

Sample ID	GP-21-GW01	GP-22-GW01	GP-23-GW01	GP-26-GW01	GP-28-GW01	GP-29-GW01	GP-30-GW01	GP-31-GW01	GP-32-GW01	GP-33-GW01	Applicable SCG
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:											
Methylene Chloride	U	U	U	U	U	2	6.5	7.1	7.3	7.2	5.0
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	7.5	1.1	5.0
1,1-Dichloroethane	U	U	U	U	U	U	U	U	2.7	U	5.0
cis-1,2-Dichloroethene	4.3	U	U	7.2	U	18.5	46	40.5	562.4	96.2	5.0
1,2-Dichlorobenzene	U	U	U	1.6	U	U	37	1.1	U	U	5.0
Benzene	U	U	U	2.9	U	U	4.6	1.9	U	1.4	0.7
Ethylbenzene	U	U	U	24	U	3	130E	U	U	U	5.0
m+p Xylenes	1.5	1.3	U	11	U	10	160E	2	U	U	10.0
o-Xylene	1.1	U	U	7.1	U	5.6	150E	3.7	U	U	5.0
Tetrachloroethene	U	U	U	U	U	U	1.4	U	1.5	U	5.0
Toluene	2	U	U	1.9	U	11	96	U	U	U	5.0
Trichloroethene	U	U	U	U	U	5.7	1.5	4.7	97	17	5.0

Sample ID	GP-34-GW01	GP-35-GW01	GP-36-GW01	GP-37-GW01	MW-1-GW01	MW-2-GW01	MW-3-GW01	Applicable SCG
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:								
Vinyl Chloride	3.8	2.6	U	U	U	U	U	5.0
1,1,1-Trichloroethane	24	U	U	U	U	U	5.3	5.0
1,1-Dichloroethane	8.6	U	U	U	U	U	1.7	5.0
cis-1,2-Dichloroethene	30.1	4	U	U	U	U	334.1	40.5
1,2-Dichlorobenzene	50	9.6	U	U	U	U	U	5.0
Benzene	220E	8.2	U	U	U	U	U	0.7
Clorobenzene	10	U	U	U	U	U	U	5.0
Ethylbenzene	97	64	U	U	U	U	U	5.0
m+p Xylenes	220E	40	1.2	U	U	U	U	5.0
Methylene Chloride	8.6	U	7.7	7.7	U	U	U	5.0
o-Xylene	120E	51	U	U	U	U	U	5.0
Tetrachloroethene	1.6	U	U	U	U	U	3.8	5.0
Toluene	190E	41	1.3	U	U	U	U	5.0
Trans-1,2-Dichloroethene	8.5	U	U	U	U	U	4.4	5.0
Trichloroethene	5	U	U	U	U	U	88	5.0

Shaded box repersents an SCG excedence.

NA: Not Available

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 3: Contaminant Concentration and Applicable SCGs (3 of 5)

Volatile Organic Soil Analysis

Westbury New York

Site 01-30-043S

Sample ID	GP-009-SS10	GP-009-SS30	GP-009-SS45	GP-010-SS15	GP-010-SS30	GP-010-SS45	GP-011-SS15	GP-011-SS30	GP-011-SS45	GP-012-SS15	GP-012-SS30	GP-012-SS45	**Applicable SCG**
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:													
Acetone	U	U	U	U	U	8.2	U	U	U	U	24	18	110
1,2,4-Trimethylbenzene	62900E	U	7.5	U	2.5	U	13	U	4.9	4.6	8	U	NA
1,2-Dichlorobenzene	U	110	U	U	U	U	U	U	U	U	U	U	7900
1,3,5-Trimethylbenzene	160700E	810E	2.6	1400	U	U	4.2	U	U	U	U	U	NA
2-Chloroethyl Vinyl Ether	U	U	U	U	U	U	25	U	U	U	U	U	NA
2-Chlorotoluene	9500	570E	U	U	U	U	U	U	U	U	U	U	NA
2-Methylnaphthalene	1600	U	U	U	U	U	U	U	U	U	U	U	NA
4-Chlorotoluene	9100	U	U	U	U	U	U	U	U	U	U	U	NA
4-Isopropyltoluene	14200	100	U	720	U	U	U	U	U	U	U	U	NA
Benzene	3800	U	U	U	U	U	U	U	U	U	U	U	60
cis-1,2-Dichloroethene	43800E	8	3.8	U	U	U	13.0	U	U	U	U	U	NA
Diethylphtalate	U	U	U	U	U	U	U	U	U	U	U	U	NA
Ethylbenzene	39800E	360E	2.0	U	U	U	6.1	U	U	U	U	U	5500
Isopropylbenzene	16000	180	U	U	U	U	U	U	U	U	U	U	NA
m+p-Xylenes	154800E	710E	8.3	U	U	U	27	U	U	8	U	U	1200
Methylene Chloride	U	U	U	U	U	U	U	U	3.3	4.9	U	U	100
Napthanlene	47100E	U	U	720	U	U	5	U	U	U	U	U	NA
o-Xylene	68900E	690E	3.3	U	3.7	3.1	8.5	U	U	2.5	U	U	1200
sec-Butylbenzene	10900	U	U	U	U	U	U	U	U	U	U	U	NA
Tetrachloroethene	1200	4.8	U	U	U	U	U	U	U	U	U	U	1400
Toluene	89100E	400	8.6	U	3.4	2.9	30.0	U	U	8.9	U	U	1500
Semi-Volatiles:													
Fluorene	U	310	U	U	U	U	U	U	U	U	U	U	350000
Benzo-a-Anthracene	220	40	U	U	U	U	U	U	U	U	U	U	300
Benzo-a-Pyrene	U	J	U	U	U	U	U	U	U	U	U	U	11000
Benzo-b-Fluoroanthene	U	J	U	U	U	U	U	U	U	U	U	U	1100
Benzo-k-Fluoroanthene	U	J	U	U	U	U	U	U	U	U	U	U	1100
Bis(2-Ethylhexyl)Phthalate	1900	110	U	1200	U	U	U	U	U	J	U	U	435000
Chrysene	280	49	U	U	U	U	U	U	U	U	U	U	400
Di-n-Butylphthalate	U	U	U	U	U	120	U	U	U	U	U	U	8100
Di-n-Octylphthalate	U	U	U	42	U	U	U	U	U	U	U	U	120000
Fluoranthene	2100	97	34	61	U	U	U	U	U	59	U	U	1900000
Phenanthrene	U	370	35	110	U	U	U	U	U	U	U	U	220000
Pyrene	1000	120	U	87	U	U	U	U	U	75	U	U	665000

Shaded box repersents an SCG excedence.

NA: Not Available

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

Table 3: Contaminant Concentration and Applicable SCGs (1of 5)

Volatile Organic Soil Analysis

Westbury, New York

Site 01-30-043S

Sample ID	GP-005-SS30	GP-005-SS45	GP-006-SS10	GP-006-SS15	GP-006-SS30	GP-006-SS45	GP-007-SS10	GP-007-SS15	GP-007-SS30	**Applicable SCG**
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:										
1,2,4-Trimethylbenzene	U	28.0	U	U	U	U	U	U	U	NA
1,2-Dichlorobenzene	U	5.5	U	U	U	U	U	U	U	7900
1,3,5-Trimethylbenzene	U	12.0	U	U	U	U	U	U	U	NA
1,4-Dichlorobenzene	U	5.7	U	U	U	U	U	U	U	NA

Sample ID	GP-007-SS45	GP-008-SS10	GP-008-SS15	GP-008-SS30	GP-008-SS45	**Applicable SCG**
Unit	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Volatiles:						
Benzene	U	U	U	U	U	60
1,2,4-Trimethylbenzene	U	39900E	98400E	8.1	11400	NA
1,2-Dichlorobenzene	U	U	U	U	U	NA
1,3,5-Trimethylbenzene	U	21200	40800E	J	3000	NA
2-Chlorotoluene	U	J	1300	U	U	NA
4-Chlorotoluene	U	J	1200	U	U	NA
4-Isopropyltoluene	U	950	2600	U	J	NA
Ethylbenzene	U	U	U	U	J	5500
Isopropylbenzene	U	U	U	U	U	NA
Napthanlene	U	U	15800	U	2,300	13000
n-Propylbenzene	U	U	1200	U	880	880
sec-Butylbenzene	U	J	2000	U	J	NA
tert-Butylbenzene	U	U	U	U	U	NA
Tetrachloroethene	U	U	U	U	U	1400
Toluene	U	U	U	U	U	1500

Shaded box repersents an SCG excedence.

NA: Not Available

U: Indicates the comound was analyzed for, but was not detected.

J: Indicates an estimated value detected below the MDL.

E: Indicates the analyte concentration exceeds the instrument calibration limits.

	storage tanks.	
Soil	Inorganics	NYSDEC Technical Administrative Guidance Memorandum HWR 95-4046 and NYSDEC Background Concentrations of 20 Elements in Soils with Special Regard for New York State.

The FRI soil and groundwater data indicated that the most prevalent contaminants existing on the Site are gasoline and diesel related target analytes, such as 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, Isopropyltoluene, ethylbenzene, napthalene, toluene and xylenes.

Chlorinated organic solvent related target analytes such as 1,1,1 trichloroethane, tetrachloroethene, trichloroethene, 1,1 dichloroethane, trans–1,2 dichloroethane and vinyl chloride were also detected. These compounds belong to a group of chemicals known as halogenated aliphatics. These compounds, when released to the environment, will degrade through biotic (hydrogenolysis) and abiotic (dehydrohalogenation) processes. The following index identifies each halogenated aliphatic that was detected and its corresponding transformation compounds.

Trichloroethene (TCE)
Tetrachloroethene (PCE)
1,1,1-Trichloroethene (TCA)
1,1-Dichloroethane (1,1-DCA)
Vinyl Chloride (VC)
cis-Dichloroethene (cis-DCE)
1,1-Dichloroethene (1,1-DCE)

The transformation processes are summarized with the diagram below. The arrows relate to the rate at which the processes occur (more arrows represents a greater period of time).

TCE ↦cis *or* trans-DCE *or* 1,1-DCE ↦↦ VC
PCE ↦↦ TCE ↦ cis or trans-DCE *or* 1,1-DCE ↦↦↦ VC
TCA ↦ 1,1-DCA↦↦↦VC

6.2.1 Soil Contamination

The majority of the soil contamination detected on-site was proximal to the three abandoned underground petroleum storage tanks and within the underground injection well formerly connected to the eastern wash bay (PS-1). The soil samples secured from around the tanks (locations GP-013 through GP-020) and from the grid sample in the area of the tanks (location GP-008) were all contaminated with gasoline and diesel related target analytes (including their transformation analytes). The soil samples generated the highest contaminant concentrations at a depth of 12 feet BEG. Said depth corresponds to the base of the storage tanks. The highest single concentration of any organic analyte detected from these sample locations was 20,500 parts per billion (ppb) of 1,2,4-trimethylbenzene (location GP-016 at a depth of 12 feet BEG). The concentrations of target analytes detected within samples secured from 7 of the 8 probes sited around the storage tanks were elevated above the applicable SCGs.

With respect to UIW PS-1, the soil samples secured from its center (location GP-009) were contaminated with chlorinated organic, and gasoline and diesel related target analytes. The highest single concentration of any chlorinated organic analyte detected from this sample location was 43,800 ppb of cis-1,2-dichlroroethene.The highest single concentration of any gasoline and diesel related analyte detected from this sample location was 160,700 ppb of 1,3,5-trimethylbenzene. These concentrations decreased to below that of the applicable SCGs in the samples obtained at 30 and 45 feet BEG. The inorganic analysis of the sample secured from UIW PS-1 at 10 feet BEG detected elevated concentrations of beryllium, cadmium, copper, nickel, vanadium and zinc. The concentrations of both organic and inorganic analytes were above the applicable SCGs at 10 feet BEG only.

With respect to UIW PS-2, the soil sample secured from its center (location GP-012) at a depth of 15 feet BEG contained low concentrations (less than 10 ppb) of target gasoline and diesel related analytes. There were no target analytes detected in any of the samples secured from this location below 15 feet BEG. The inorganic analysis of the sample

secured from UIW PS-2 at 15 feet BEG detected concentrations of heavy metals that were below the applicable SCGs.

With respect to former cesspool PS-3, the soil sample secured from its center (location GP-010) at a depth of 15 feet BEG contained low concentrations (less than 1400 ppb) of target gasoline and diesel related analytes. These concentrations decreased with depth in the samples obtained at 30 and 45 feet BEG. The concentrations of these target analytes in each of the samples obtained from the location were below the applicable SCGs. The inorganic analysis of the sample secured from former cesspool PS-3 at 15 feet BEG detected concentrations of heavy metals that were below the applicable SCGs.

With respect to interior UIW PS-4, the soil sample secured from its center (location GP-011) at a depth of 15 feet BEG contained low concentrations (less than 30 ppb) of target gasoline and diesel related analytes. These concentrations decreased in the samples obtained at 30 and 45 feet BEG. The concentrations of these target analytes in each of the samples obtained from this location were below the applicable SCGs. The inorganic analysis of the sample secured from UIW PS-4 at 15 feet BEG detected concentrations of heavy metals that were below the applicable SCGs.

With respect to the non-point source soil samples obtained on a grid, the soil samples secured from these locations (GP-001 through GP-008) at depths of 10, 15, 20 and 45 feet BEG failed to detect any target analytes with two exceptions. The first exception involved samples from location GP-008 that, as stated above, were proximal to the underground petrochemical storage tanks. The second exception was the analysis of the sample secured from location GP-005 at 45 feet BEG. The analysis detected low concentrations of four gasoline and diesel related target analytes at low concentrations (less than 28 ppm). The concentrations of these analytes were below the applicable SCGs.

6.2.2 Groundwater Contamination

In general, the detected groundwater contaminants were limited to the southeast portion of the Site. However, an isolated area of contamination was detected north of the building beneath the three underground petroleum storage tanks (see **Plate 7**). The groundwater samples secured from the southeast portion of the Site (locations GP-029 through GP-037 and MW-3) were contaminated with both chlorinated organic, and gasoline and diesel related target analytes. The isolated area north of the building was contaminated with gasoline and diesel related target analytes.

The highest single concentration of any chlorinated target analyte detected in the southeast corner of the Site was 562.4 ppb of cis-1,2 dichloroethene (location GP-032). This concentration, as well as ten others from five other sample locations, was in excess of the applicable 5 ppb SCG value. With the exception of one sample location (GP-034), the concentrations of the target chlorinated organic analytes that were above ambient were predominantly higher entering the Site than exiting. This fact is as follows.

Analyte	Incoming Concentrations/Outgoing Concentrations [ppb]					
Sample Location	GP-032/GP-033	MW-3/GP-033	GP-031/GP-034	GP-030/GP-035	GP-029/GP-036	GP-021/GP-025
PCE	1.5/U	3.9/U	U/1.6	1.4/U	U/U	U/U
TCE	97/17	88/17	4.7/5	1.5/U	5.7/U	U/U
t-1,2 DCE	U/U	4.4/U	U/8.5	U/U	U/U	U/U
c-1,2 DCE	562.4/96.2	334.1/96.2	40.5/30.1	46/4	18.5/U	4.3/U
1,1,1 TCA	7.5/1.1	5.3/1.1	U/24	U/U	U/U	U/U
1,1 DCA	2.7/U	1.7/U	U/8.6	U/U	U/U	U/U
VC	U/U	U/U	U/3.8	U/2.6	U/U	U/U

The highest concentration of a gasoline and diesel related target analyte detected within laboratory calibration standards in the southeast corner of the Site was 96 ppb of toluene (location GP-030). This concentration, as well as twenty-three others from five other sample locations, was in excess of the applicable 5 ppb SCG value (with exception of the SCG of benzene, which is 0.7 ppb). The concentrations of the target gasoline and diesel related analytes were higher exiting the Site than entering.

7. DATA USABILITY SUMMARY REPORT

This Data Usability Summary Report (DUSR) was prepared to provide an evaluation of analytical data obtained from the collection of subsurface soil and groundwater samples from the Site. The primary objective of this DUSR was to determine if the data obtained met the applicable criteria for data quality assurance. The DUSR was developed by reviewing each of the NYSDEC ASP B deliverables provided by the selected laboratory (Chemtech, New Jersey). To determine the validity and usability of the data obtained from the Site, a series of technical questions were raised pertaining to specific quality assurance and control (QA/QC) requirements defined under the specified test methods. The questions were as follows.

	Deliverable Lab Code:					
	13826	**13827**	**13946**	**13649**	**13701**	**L53220**
(~ Not Applicable)						
• Were all chain of custody records present and completed?	Y	Y	Y	Y	Y	Y
• Were the analyses performed as per methods requested?	Y	Y	Y	Y	Y	Y
• Was the data package complete as defined under requirements for NYSDEC ASP B deliverables?	Y	Y	Y	Y	Y	Y
• Were the required holding times met for all matrices and analytical parameters?	Y	Y	Y	Y	Y	Y
• Were samples correctly preserved?	Y	Y	Y	Y	Y	Y
• Was sample preparation correctly documented?	Y	Y	Y	Y	Y	Y
• Was % moisture less than 50% for all soil samples?	Y	Y	Y	Y	~	~
• Were the calibrations performed at the required frequency?	Y	Y	Y	Y	Y	Y
• Were the initial calibration within the acceptable criteria?	Y	Y	Y	Y	Y	Y
• Were the method blanks free of contamination?	Y	Y	Y	Y	Y	Y
• Were the field blanks free of contamination?	~	~	~	~	~	Y
• Were the trip blanks free of contamination?	~	~	~	~	Y	Y
• Were system monitoring compounds within acceptable limits?	Y	Y	Y	Y	Y	N
• Did internal standards meet acceptable criteria?	N	N	Y	Y	Y	Y
• Were matrix spike/matrix spike duplicate (MS/MSD) analyzed at the correct frequency?	Y	Y	Y	Y	Y	Y
• Did the MS/MSD meet the percent recovery (%R) and relative percent difference (RPD) acceptable criteria?	Y	Y	Y	Y	Y	Y
• Was the matrix spike blank sample (MSB) analysis performed at the correct frequency?	Y	Y	Y	Y	Y	Y
• Did the MSB meet the percent recovery (%R) criteria?	Y	Y	Y	Y	Y	Y
• Did the result for any field duplicate samples meet expected precision requirements?	Y	Y	Y	Y	Y	Y
• Were any discrepancies noted when review of raw data (chromatograms) was performed?	N	N	N	N	N	Y
• Were results reported in correct units and soil samples corrected for % moisture?	Y	Y	Y	Y	~	~

Deviations that did not meet requirements are described as follows.

The solid matrix samples GP-009-SS10 and GP-010-SS15 from the semi-volatile fraction (deliverables package code # 13826ASP) were not acceptable for surrogate recovery. The recoveries have been flagged accordingly, and no further action is recommended. Additionally, the solid matrix samples GP-009-SS10 and GP-010-SS15 did not meet the requirements for internal standard areas. It is not anticipated that either of these factors have significantly affected the quality of the data results, and no further action is recommended. Furthermore, the results obtained from these samples are not relevant to key FRI goals.

The solid matrix samples GP-015-SS8, GP-16-SS8, GP-16-SS12, GP-18-SS8, GP-18-SS12 and GP-19-SS12 from the semi-volatile fraction and sample GP-017-SS8 from the volatile fraction (deliverables package code #13827ASP) did not meet the requirements for internal standard areas. It is not anticipated that these factors have significantly affected the quality of the data results, and no further action is recommended. Furthermore, the results obtained from these samples are not relevant to key FRI goals.

The aqueous matrix sample GP-032-GW01 from the volatile fraction (deliverables package code # L5320ASP) was noted to report an undetected concentration value (U) for the analyte *trans*-1,2-Dichloroethene. Upon review of the raw data, it was noted that a concentration value of 5.3 ppb was detected for this analyte. This matter taken into consideration and no further action is recommended.

The aqueous matrix sample GP-034-GW01 from the volatile fraction (deliverables package code # L5320ASP) was not acceptable for system monitoring compound recovery. It appeared that matrix interference was encountered with the Toluene-d8 surrogate. This surrogate recovery exceeded the upper QC limits on the initial and duplicate runs (76% above upper limit), and therefore the corresponding target analyte concentrations are suspected to be bias positive. It is anticipated that this factor has affected the quality of the data results (bias positive or high). Accordingly, it is

recommended that this sample be re-acquired and analyzed to confirm data accuracy and validity.

8. CONCLUSIONS

8.1 Overview

The presence of halogenated aliphatic compounds, which include chlorinated organic compounds such as trichloroethene (TCE), tetrachloroethene (PCE) and 1,1,1 trichloroethane (TCA), in groundwater are typically the result of direct discharges of industrial wastes via point and non-point sources and not the result of biochemical degradation (LMS, 1995). When TCE, PCE and TCA are present, significant products of degradation can be *cis*-1,2-dichloroethylene (cis-DCE) and 1,1-dichloroethane (1,1-DCA). TCE, PCE and TCA can be degraded to varying degrees through both biotic (hydrogenolysis) and abiotic (dehydrohalogenation) processes in the environment.

PCE will undergo hydrogenolysis to produce TCE; however, TCE will more rapidly degrade to cis-DCE. Because the transformation rates for TCE to degrade to cis-DCE are much faster that the rates for cis-DCE to degrade, it is more likely that cis-DCE will be detected in the environmental rather than TCE, as a result of biochemical degradation. cis-DCE has been shown to degrade to vinyl chloride (VC), however, the transformation rate is very slow.

TCA normally undergoes hydrogenolysis to produce 1,1-DCA. 1,1-DCA has also been found to degrade to VC; however, the transformation rate is very slow. There is no evidence that TCA will degrade to 1,2-DCA.

It should be noted that any of the compounds detected could be present as a product (solvent) impurity rather than as the result of a biotic transformation in the environment.

With respect to the gasoline and diesel related contaminants, the majority of biotic transformation occurs as biodegradation. Biodegradation is the decomposition of an analyte by micro-organisms such as bacteria, fungi and yeast. The end products of biodegradation are water, carbon dioxide and energy. Accordingly, very few of the

gasoline and diesel related analytes are transformed to other compounds. The aging of gasoline and diesel related analytes in the environment typically yield concentration reductions. These reductions are not always proportional to the original products composition.

8.2 Point Pollution Sources

None of the point pollution sources for chlorinated organic solvents identified under the scope of this FRI have impacted the environmental quality of groundwater. This is demonstrated by the following facts.

- Based on the information compiled in the Site Background Study and Site Visit aspect of this FRI, there was no direct evidence that chlorinated organic solvents were ever discharged to the Site via a point pollution source.

- The soil beneath point pollution sources PS-2, PS-3 and PS-4 were tested and found to contain nominal concentrations of chlorinated target analytes (below the applicable SCGs).

- The soil beneath point pollution source PS-1 was tested and found to contain concentrations of chlorinated target analytes above the applicable SCGs. However, it was found that the concentrations were below detection limits or below that of ambient background at 45 feet BEG (5 feet above the water table).

- The groundwater beneath each point pollution source was tested and found to be free of any detectable concentrations of chlorinated organic target analytes.

With respect to gasoline and diesel related contaminants, all of the data compiled under the scope of this FRI suggests that the operation of the former underground storage tanks has impacted local soil and groundwater quality. The majority of the contaminants detected exist near the base of the tanks, at a depth of approximately 12 feet BEG.

Furthermore, petrochemical contamination was detected in each of the four underground injection wells (PS-1, PS-2, PS-3 and PS-4). However, only the concentrations at pollution source PS-1 at a depth of 10 feet BEG were elevated above the applicable SCGs.

8.3 Non-Point Pollution Sources

The data compiled from the analysis of the non-point source investigative data is complex in that it requires interpretation. As indicated in **Section 6.2** of this report, the FRI investigation data eliminated several of the non-point pollution sources as having impacted Site groundwater quality. Specifically, the investigation eliminated PS-6 (the septic tank and conduit), PS-7 (the western service pit) and PS-9 (the stained permeable surface areas) as having impacted Site groundwater quality. This was determined, as groundwater beneath and down gradient of each of these sources was not contaminated with target organic analytes.

The FRI derived data suggests that non-point source PS-8 (the eastern service pit), PS-10 (the former PCE storage tank room) and PS-11 (the area of a petrochemical discharge to the permeable surface) did impact Site groundwater quality. A detailed discussion of each source follows.

8.3.1 PS-8 (Eastern Service Pit)

Groundwater quality hydraulically down gradient of pollution source PS-8 was impacted with gasoline related target analytes. These results suggest that PS-8 is the source for said contaminants; however, it is possible that these contaminants are associated with the leaking underground storage tanks (see **Sections 6.2 and 8.2**). More than likely, the source of the contaminants in groundwater is a combination of the two pollution sources.

8.3.2 PS-10 (Former TCE Storage Tank Room)

The investigation performed with respect to this pollution source is complicated by the presence of a regional chlorinated organic groundwater contaminant plume that traverses the southeast corner of the Site (LMS, 1995). For this reason, the mere presence of chlorinated organic target analytes in the groundwater is not conclusive of this pollution source having impacted Site groundwater quality. Rather, contaminant concentrations up and down gradient of these sources must be compared to determine if this pollution source has contributed to the regional contaminant plume. This is done by comparing incoming against outgoing groundwater quality to detect a net increase. As indicated in **Section 6.2** of this report, the groundwater entering the site near PS-10 as represented by sample GP-031-GW-01, has lower concentrations of chlorinated organic target analytes than the groundwater exiting the Site as represented by sample GP-034-GW01. These results suggest that PS-10 is impacting Site groundwater quality; however, the following factors contradict this supposition.

- The quality control analysis of the sample data package submitted for this FRI indicated that quantitative results generated from the analysis of sample GP-034-GW01 were skewed high (see **Section 7**).

- The highest net concentration increase between any two analytes (hydraulically up versus down grade) is 24 ppb. The average increase of all of the analytes was 7.8 ppb.

- The net increase is not observed between adjacent up and down gradient sample locations with concentrations over ambient background (GP-030/GP-035, GP-032/GP-033 & MW-3/GP-033).

These issues cast significant doubt upon the interpretation that PS-10 has impacted Site groundwater quality. As such, this FRI can only conclude that PS-10 is potentially impacting Site groundwater quality.

8.3.3 PS-11 (Area of Petrochemical Discharge to the Permeable Surface)

The investigation performed with respect to this pollution source is also complicated by the presence of the aforementioned regional chlorinated organic groundwater contaminant plume. Again, the mere presence of chlorinated organic target analytes in the groundwater is not conclusive of this pollution source having impacted Site groundwater quality. Rather, contaminant concentrations up and down gradient of these sources must be compared to determine if this pollution source has contributed to the regional contaminant plume.

As indicated in **Section 6.2** of this report, the groundwater entering the site near PS-11 as represented by sample GP-032-GW-01, is contaminated with higher concentrations of chlorinated organic target analytes than the groundwater exiting the Site as represented by sample GP-033-GW01. These results suggest that PS-11 is not impacting Site groundwater quality.

8.4 Areas of Concern

The following represents areas of concern from all point and non-point pollution sources.

- Abandoned underground storage tanks (PS-5)
- Underground Injection Well North of Eastern Wash Bay (PS-1)
- Eastern Abandoned Service Pit (PS-8)
- Former TCE Storage Tank Room (PS-10)

9. RECOMMENDATIONS

See **Plate 8** for an overview map of the Site indicating the prescribed recommendations for the following areas of concern.

The three abandoned underground storage tanks should be removed and the gasoline and diesel contaminated source media that exists at approximately 12 feet BEG should be excavated for off-site disposal. A fourth tank was identified to have existed at one time in the Government Records Inventory aspect of this FRI. Based on the results of the Remote Survey performed under the scope of this FRI, it is believed that it was removed from the Site. All remedial activities associated with these tasks should be performed under the supervision of the NYSDEC, Environmental Remediation Division.

The underground injection well located on the east side of the Site, north of the existing building, (PS-1) should be subjected to remedial activities. Said activities should include accessing the structure and removing the contaminated media contained therein. All remedial activities associated with this injection well should be performed under the supervision of the NYSDEC, Environmental Remediation Division.

The abandoned service pits located within the building interior should be subjected to remedial activities. Said activities should include accessing the structures and removing the contaminated media and petrochemical storage structures (grease trap) contained therein. All remedial activities associated with the pits should be performed under the supervision of the NYSDEC, Environmental Remediation Division.

The interior underground injection well investigated under the scope of this FRI should be re-sealed (it was opened during the FRI Site Visit).

Additional investigative activities should be performed to confirm or refute if pollution source PS-10 has impacted Site groundwater quality. Such work should include the

acquisition of subsurface soil samples beneath the floor of the room formerly used to house an above ground TCE storage tank.

Proper housekeeping practices by the Site occupants should be followed to minimize the release of chemical substances to the interior and exterior surface areas. These practices should be approved by the NYSDEC so that the active petroleum spill incidents can be closed.

The NYSDEC Inactive Hazardous Waste Disposal Site site-code should be changed from a "2" to a "2A" until such time as the additional information recommended above can be obtained and reported to the NYSDEC.

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Appendix A.1 through A.5
Focussed Remedial Investigation Report

Regarding:

299 Main Street Site
Westbury, New York
(Site Code 1-30-043S)

September 2000

IMPACT ENVIRONMENTAL

❖ *a division of impact environmental consulting, inc.*

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Appendix A.1

NEW YORK STATE SUPERFUND CONTRACT

PRELIMINARY SITE ASSESSMENT REPORT

REVISED DRAFT

Volume I

Report Text
Appendices A-C
(Report in 5 volumes)

New Cassel Industrial Area Site
North Hempstead, Nassau County

Site No. 130043

Work Assignment No. D002676-2.2

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road
Albany, New York 12233

October 1994

Prepared By:

LAWLER, MATUSKY & SKELLY ENGINEERS
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Pearl River, New York 10965

File No. 650-027

CHAPTER 1

EXECUTIVE SUMMARY

The New Cassel Industrial Area (NCIA) is located in the unincorporated village of Westbury, in the Town of North Hempstead, Nassau County, New York. Approximately 200 industrial or commercial businesses occupy this 170-acre site. The Nassau County Department of Health (NCDOH) in conjunction with a private consulting firm conducted a subsurface investigation of the NCIA in 1985 to evaluate groundwater quality in the vicinity of this site and several others in the county identified as possessing groundwater contamination problems. The study identified fairly extensive halogenated volatile organic contamination of groundwater beneath the site, and recommended further study. NCDOH also petitioned the New York State Department of Environmental Conservation (NYSDEC) to classify the site as a hazardous waste site. The site was listed as a Class 2 by NYSDEC in 1988.

Since the site was listed, numerous owners of property within the site have petitioned NYSDEC to segregate and remove their properties from the Class 2 list. NYSDEC has qualifiedly delisted all properties for which they received delist petitions. The qualification included in the delisting notifications was that if the pending site investigation revealed evidence that these properties were the cause of the contamination, they would be relisted.

Lawler, Matusky & Skelly Engineers (LMS) was contracted by NYSDEC to conduct a preliminary site assessment (PSA) for the NCIA. This report presents the findings of the first six tasks of the PSA. Task 1 consisted of a file review and procurement from the various town, county, and state agencies holding information pertinent to the site. Task 2 consisted of compilation of a comprehensive database summarizing the information gathered in Task 1. Task 3 consisted of the collection and analysis of groundwater samples from 56 monitoring wells already located at the site. Task 4 consisted of the analysis of samples collected from 40 groundwater probes located strategically throughout the site. The Geoprobe locations were sampled from multiple depths to provide vertical contaminant distribution information. This task also included preparation of a draft report presenting the results of Tasks 1 to 4 along with LMS' recommendations for additional work. Task 5 consisted of a second phase of groundwater probes and suspected source area sampling along with selected facility inspections. Task 6 is the preparation of this report

The analytical data generated from the sampling have been reduced and used to generate contaminant plume maps. Several groundwater volatile organic compound (VOC) contaminant plumes were delineated during the assessment, and the properties potentially contributing to

each of these plumes have been identified. The contaminant plume distributions have been analyzed with respect to current and previous property usage for the entire site, incorporating chemical use and spill information gathered from extensive file review.

The PSA results have identified several areas exhibiting significant groundwater contamination within the NCIA. The bulk of the contamination is centered in three areas within the site: one in each of the western, central, and eastern sections. In each of these contaminated areas separate plumes based on the contaminants, the concentrations, and sources can be subdivided. LMS has detected two plumes in the western section, three in the central section, and two in the eastern section. Beyond these plume areas, the remaining area of the NCIA appears to be relatively uncontaminated.

Following the objectives stated in Chapter 2, LMS recommends that the NCIA site be removed from the hazardous site listing and that seven separate sites be added to the list. The delisting of the whole site would delist/remove the clean blocks/lots listed below; the relisting of the seven plume areas would then list only the major contaminated areas.

It is not clear what classification all seven plumes can be given, however. All plume areas have documented significant impact to the environment - the contaminant concentrations in an aquifer connected to a drinking supply aquifer are orders of magnitude higher than drinking standards and are a serious threat. But the second criterion for listing a site, documentation of a release or presence of hazardous wastes, has not been demonstrated in all plumes. The plume areas can be divided into the following categories:

- **Documented Sole Sources.** These plumes have one documented source and a relatively clearly defined contaminant plume that results from the sole source. These sites can be listed as Class 2, listing the facility where the source was discovered as the site. Two plumes, 570 Main Street and 125 State Street, are recommended for this category.

- **Documented Multiple Sources.** These plumes have good documentation that a number of sources were responsible for the contaminant plume. However, a number of other facilities within the plume area were also likely contributors to the contamination based on historical information, but documented data do not exist. These plumes can be listed as Class 2 sites as documented sources were recorded. LMS recommends that the source facilities and all the potential or suspected facilities within the plume be included as the site. One plume, Arkwin/Tishcon, is recommended for this category.

- **Suspected Multiple Sources.** These plumes have good historical information that a number of facilities within the plume were the likely source; however,

documented data do not exist to date. LMS does not know whether the historical data are sufficient to document hazardous waste. We recommend two alternatives: (1) research the existing data files in more detail so as to find documented hazardous waste at one or more facilities, thereby listing the plume area as a Class 2 site (similar to above); or (2) list as Class 2a and research and investigate the potential sources in detail. These plumes, Garden Street/Hopper Street, Sylvester Street/Kinkel Street, and GP-1/-39, are recommended for this category.

- No Sources. These plumes have no documentation or other evidence to support the release of hazardous waste as found in the groundwater. Simply stated, we found no sources. We recommend these sites be classified 2a and additional investigations be conducted to find the source. One plume, Block 328, is recommended for this category.

CHAPTER 2

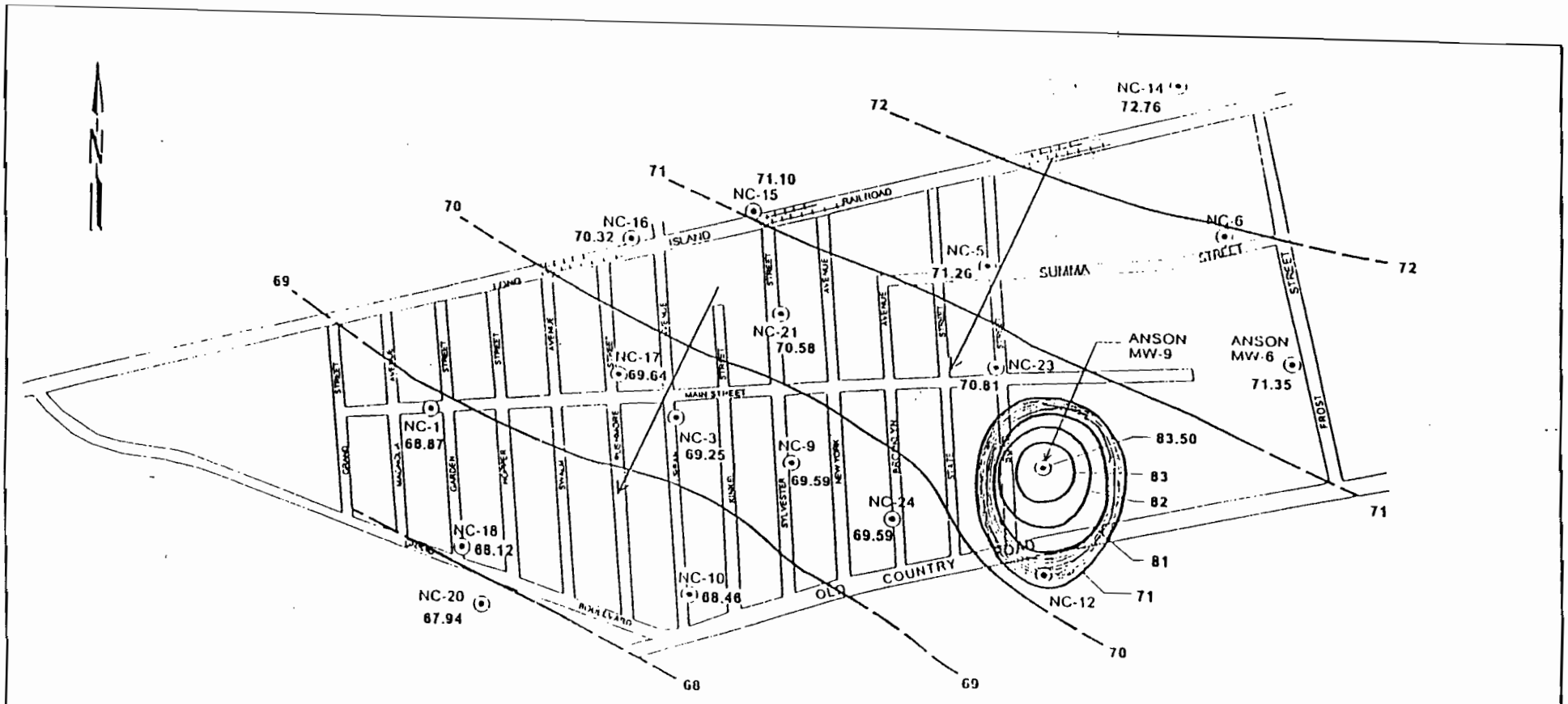
OBJECTIVES

The overall objectives of the preliminary site assessment at the New Cassel Industrial Area were to:

- **Delineate the contaminant plumes under the site.** It has been documented that the groundwater under the site is contaminated with VOCs; however, whether there were a number of plumes, whether the plumes were connected, and/or whether there were areas with no contamination was not known.

- **Locate the source of the contaminants.** The whole site was listed as a Class 2 site, meaning that all of the property owners were potentially responsible parties (PRPs), even though many site operations may never have released any contaminants. The purpose of this investigation was to document the use, release, or spillage of contaminants and as best as possible correlate the resultant contamination with delineated plumes, i.e., find the most likely PRPs.

- **Redefine the site according to measured contamination.** The investigation and remediation of a 170-acre site with 200 PRPs is difficult. Results of the PSA narrowed the site to a number of measured and documented plumes with known or recorded sources. Sites documented as plume sources can remain on the hazardous list, and be scheduled for remedial investigations and feasibility studies and/or remedial measures. The uncontaminated areas of NCIA can be delisted.



LEGEND

NC-20 ⊙ Monitoring well

67.97 Water table elevation in feet above mean sea level

69 Water table contour (dashed line is inferred)

Groundwater flow direction

0 ~500 ft

SCALE IN FEET

FIGURE 4-2

WATER TABLE CONTOUR
8-9 November 1993

NEW CASSEL INDUSTRIAL AREA
NYSDEC I.D. No. 130043

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

TABLE 4-2 (Page 3 of 3)

LIST OF PROPERTIES WHICH RECIEVED SITE INSPECTIONS

New Cassel Indrustrial Area

BLOCK & LOT NUMBERS	ADDRESS	OWNER	OCCUPANT	SECTION
70, 16-17, 54-55	80-86 Magnolia Ave.	80 Magnolia Avenue Co. 80 Magnolia Ave. Westbury, NY 11590	Alltec Inc.	Western
70, 40-42	81 Garden St.	Eighty-1 Garden St. Rlty 390 Willis Avenue Roslyn Hieghts, NY 11577	Warehouse ?	Western
144, 31-50	299 Main St.	F. Scappatura 1015 Old Country Road Westbury, NY 11590	One Stop Auto and Truck Center	Western
73, 1-12, 63-75	570 Main St.	Foray Construction Co. 570 Main St. Westbury, NY 11590	Castle Collision and Vacant - Formerly IMC Magnetics	Western
70, 43-44	87-89 Garden St.	Frank A. Miceli 1159 Fernwood Dr. Valley Stream , NY 11580	Rapid Rivet and Fastener Corp.	Western
70, 35-39	75 Garden St.	Grimace Realty Corp. 514 Grand Blvd. Westbury, NY 11590	Island Poly Bag and Supply	Western
71, 5-8	542 Main St.	H. Greenberg 155 Argyle Rd. Brooklyn, NY 11218	Al's Tool and Die	Western

80-86 Magnolia Avenue. Alltec Inc., which sells and services power washers, has been on-site for three years (Appendix B, Photo 30). The occupants are unaware of past uses: the building had apparently been vacant for some time. Soaps and cleaners are stored but no solvent-based cleaners. Alltec had no knowledge of any leach pools on-site. Several suspected pools were identified to the rear and front of the building, but the owner objected to any sampling so the presence of former leach pools could not be verified.

299 Main Street. One Stop Auto and Truck Centers has occupied this address since April 1994 (Appendix B, Photos 21 and 22). A full service auto and truck garage, the firm currently has no underground storage. There were no floor drains within the garage, although there was a grated drain along the garage doors. Where this drain discharges is unknown as the rear lot has been recently paved, covering over signs of old leach pools (Appendix B, Photo 23). The site was formerly a junkyard (Sam-Ton Salvage) for approximately 20 years. Several features at the site suggest that there once was underground storage at the site (Appendix B, Photo 24). Heavy BTEX contamination was noted in a soil sample just above the water table in GP-22 located near this address.

570 Main Street. Castle Collision is located in the southern portion of the building at this address; the northern portion is vacant. Castle Collision is a full service auto body repair and painting garage. The site was formerly in use by IMC Magnetic, which manufactured precision pumps for the aircraft industry. When IMC Magnetic moved to Haupaug, New York, a number of leaching pools, septic tanks, and floor drains were abandoned.

Apparently these disposal locations were in use until 1990 when the site was hooked into the county sewer system. The site is currently under closure; IMC's environmental consultant, Anson Environmental, during its closure investigation, identified three source areas on-site that are grossly contaminated with VOCs and metals. These source areas remain in place awaiting NYSDEC approval of an IRM proposed by Anson Environmental. Area 1 is a series of leach pools and a septic tank located near the corner of Main and Rushmore streets. Laboratory testing of the septic tank showed concentrations of PCE at 94,300 ppb and chromium at 27,000 ppb. Area 2, located near the corner of Swalm and Main streets, consists of two connected leach pools that apparently received discharges from the floor drains. Laboratory sampling of these two leach pools showed extremely high concentrations of toluene, xylene, methyl chloride, PCE, TCE, TCA, cadmium, chromium, and lead. In leach pool 2B PCE concentrations were 13.9% (1.39×10^8 ppb), indicating the presence of dense, non-aqueous phase liquid (DNAPL) in the pores of the sediments located within this pool. Area 3, located in an alley between the building and the southern property boundary, consists of a septic tank and two leach pools. Elevated levels of chromium were found in the septic tank (ST3, 50,000 ppb) and both leach

CHAPTER 6

CONCLUSIONS

6.1 OVERVIEW

Chlorinated solvents in groundwater typically degrade (dechlorinate) in the presence of microbiotic activity. During degradation one or more of the chlorine ions present in a solvent molecule is replaced with a hydrogen ion. Of the chlorinated compounds detected in samples analyzed at the site, trichloroethylene (TCE), tetrachloroethylene (PCE), and 1,1,1-trichloroethane (1,1,1-TCA) are typically the parent or source chemicals that are available commercially and are used widely in industry as cleaners and degreasers. These compounds will typically undergo biochemical degradation, in which chlorine atoms are replaced by hydrogen, forming the various dichloroethenes and dichloroethanes.

Specifically, PCE and TCE will degrade to form either cis- or trans-1,2-DCE or 1,1-DCE. It is possible for PCE to first degrade to TCE, which will then degrade to one of the dichloroethylenes; however, it has been LMS' experience that this process does not typically occur. Similarly, while it is theoretically possible for the DCE isomers to degrade to vinyl chloride (VC), this process is not observed very often. Rather, VC is typically present in the subsurface as a result of a direct discharge.

The compound 1,1,1-TCA degrades to 1,1-dichloroethane (1,1-DCA); it does not typically degrade to 1,2-dichloroethane (1,2-DCA). This fact is supported by the virtual lack of detection of this latter compound in the samples analyzed. The low concentrations of 1,2-DCA detected in a few samples is probably due to impurities in the various chemicals present in the groundwater samples.

Correlation of the soil and groundwater data with information assembled during Tasks 1 and 2 has facilitated the preparation of integrated chemical use/spill and contamination maps. The site has been divided into three sections - western, central, and eastern - for convenience. The western section consists of all properties west of Urban Avenue, including those along the west side of Urban Avenue. The central section consists of all properties east of Urban Avenue and west of Bond Street, including those along the east side of Urban Avenue and the west side of Bond Street, respectively. The eastern section consists of the properties east of Bond Street, including those along the east side of Bond Street. The sections are shown in Figure 6-1 along with the Nassau County tax block numbers. Large-scale drawings of the integrated chemical

use/spill and contamination maps of each of the sections are found on Plates 1 to 9 (Volume II at the back of this report).

The three maps prepared for each section show the contaminant distribution in groundwater for depth intervals at 55-75, 75-85, and 85-95 ft (Figures 6-2 through 6-27). The legend for each of these maps (Figures 6-2 through 6-27) is found on Table 6-1. The properties represented on the map have been variously shaded to indicate recorded usage or spillage of the target compounds or, where applicable, suggested target compound usage based on known site operations (cases in which no chemical usage information was available for the property).

6.2 WESTERN SECTION OF SITE

The western section of the site is a triangular region bounded on the east by Urban Avenue, on the north by the Long Island Rail Road, and on the south by Grand Boulevard. Two apparently overlapping groundwater contaminant plumes were detected in the middle portion of this section; delineation of the two plumes is based on the data available. Other than the two plumes mentioned above, pronounced groundwater contamination beneath this portion of the site was not detected. Figures 6-2 through 6-7 present the plume maps.

6.2.1 Garden Street/Hopper Street Plume

A plume was detected starting at monitoring points GP-22 and -62 and extending downgradient past GP-105 and HARMON-MW-1 (Figure 6-2). The upgradient extent of this plume appears to be near 110 Hopper Street, but no monitoring points are located in this area to confirm this. In the two most upgradient points within this plume the total PCE concentrations increased with depth (Figures 6-2 and 6-3). In GP-22 total PCE increased from 74 to 680 ppb. In GP-62 total PCE increased from 297 to 1710 ppb. A similar trend was seen in GP-95, increasing in concentration from 399 to 13,923 ppb. The plume exhibits moderate to heavy TCE contamination in its mid-position (GP-105 and -106, HARMON-MW-1, and GP-24). At the water table (52 ft) concentrations of 1,2-DCE and TCE were 2300 and 660 ppb, respectively, in HARMON-MW-1. In GP-105 and -106 the shallow samples (taken from 63-65) exhibited much less DCE and TCE than HARMON-MW-1. However, with depth at GP-106 TCE (2000 ppb) and PCE (2200 ppb) were much greater than GP-105 or HARMON-MW-1. The inference is that the contaminant distribution in this area represents potentially overlapping plumes, with the appearance of PCE at depth being the marker compound. It is believed that the PCE may have originated from a newer spill of PCE associated with the 570 Main Street plume. This hypothesis is supported by the contaminant distribution in GP-24, which exhibits more PCE

breakdown products, including VC*. GP-24 is believed to be more representative of an older historical spill within the plume area.

Heavy BTEX contamination was also detected in soil samples collected from the 10-ft interval just above the water table in GP-22. Groundwater was moderately contaminated with toluene and xylenes (approximately 200 ppb), with a slight increase in concentration with depth. Low levels of benzene and o-xylene (50 ppb total) were detected in the 68-70 ft sample from GP-24. The BTEX soil and groundwater contamination at GP-22 indicates some type of petroleum spill in the vicinity of GP-22. A low-level plume has migrated via groundwater at least as far as GP-24.

In summary, a release of PCE has occurred in the vicinity or upgradient of GP-62 and -95. The DCE contamination detected in GP-24, HARMON MW-1, and GP-105 and -106 may be related to this spill as it is a breakdown product of PCE. GP-22 is monitoring residual PCE that has not migrated downgradient and degraded to DCE. VC appears to be forming in the vicinity of GP-24 as a result of degradation of DCE. The elevated PCE found in GP-106 may indicate that this plume and the 570 Main Street plume overlap in this area.

Possible sources for the PCE spill include the facilities at 110 Hopper Street and the properties at the southern end of Block 145, which use the address 559 Main Street. None of these facilities are on record as using any of the chlorinated solvents, although the operations at these site suggest that use of these materials is possible.

Alternatively, the chlorinated solvent contamination at GP-24 and HARMON-MW-1 may be the result of a source located between them and GP-22 (i.e., 534/542 Main Street/95 Hopper Street). Under this scenario GP-22 is monitoring an isolated (chlorinated solvent) spill as well as a BTEX spill and the contamination detected at GP-24, HARMON-MW-1, GP-105 and -106 is related to a separate spill of PCE or possibly DCE and VC. DCE is manufactured commercially, although its uses are not typically those found at the site, except possibly as an additive to lacquer-type paint (Verschueren 1983). The VC at GP-24 could be present as an impurity in discharged DCE or as a result of degradation of discharged DCE. The facility at

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*It is theoretically possible for DCE to degrade to VC (Fetter 1993), although this process is not usually observed. The presence of VC in groundwater is usually better explained as the result of a direct discharge of VC, or as an impurity in discharged PCE or TCE solvent. However, industrial sources of VC are usually limited to plastics (PVC) manufacturing facilities (Howard 1990). Since there are no such facilities in the vicinity, and VC was not detected at GP-22 as an impurity in the PCE/TCE source, the most probable cause for the VC detected at GP-24 is degradation of the DCE present.

95 Hopper Street uses various paints, both lacquer and enamel, in the manufacturing process that takes place there.

6.2.2 570 Main Street Plume

A second plume was detected below this portion of the site, to the east of the plume described above (Figures 6-5 to 6-7). The source of this plume appears to be the former IMC Magnetics facility located just upgradient of GP-20. The eastern edge of this plume appears to proceed to the southwest from Main Street between NYT MW-2 and GP-99, then between N-11847 and GP-37. The downgradient edge of the plume appears to be between N-11850 and NC-20; this is tentative based on these two shallow monitoring points. The western extent of this plume is not as obvious as the plume appears to overlap with the plume to west.

PCE and TCE were detected in GP-20; both increased in concentration with depth. PCE, TCE, and 1,1,1-TCA were detected at moderate levels in GP-23; all decreased in concentration with depth. The typical breakdown products were not detected in appreciable concentrations.

Based on the vertical distribution of PCE and TCE in GP-20, it appears that both this point, GP-23, and GP-99 are monitoring the same plume of total PCE. The hypothesis is that a "slug" of DNAPL is migrating downward through the groundwater near 570 Main Street. This accounts for the increasing concentrations with depth at GP-20. It is not known whether the DNAPL is PCE or TCE. Chemical usage and closure testing at 570 Main Street suggest it may be PCE and the noted TCE concentrations are the result of PCE breakdown. The measured concentrations in GP-23 and -99 would then be accounted for as lateral migration from the DNAPL.

In summary, a PCE or TCE spill has occurred in the vicinity or upgradient of GP-20. The most obvious source candidate is 570 Main Street, where there was a documented release of these compounds. Recent (1993) closure work at this site identified several areas of apparently heavy contaminant discharge to on-site septic systems and floor drains. Extremely high concentrations of toluene, xylenes, 1,1,1-TCA, PCE, and methyl chloride as well as chromium and cadmium were detected in samples collected from septic systems and floor drains (see Section 5.2.3, 570 Main Street). A septic system and leach pool system located on the northeast (area 2) and northwest (area 1) corners of the property, respectively, and another septic system (area 3) at the south end of the property were found to be heavily contaminated, as were samples collected from floor drains located within the building. An IRM for the site is awaiting NYSDEC approval.

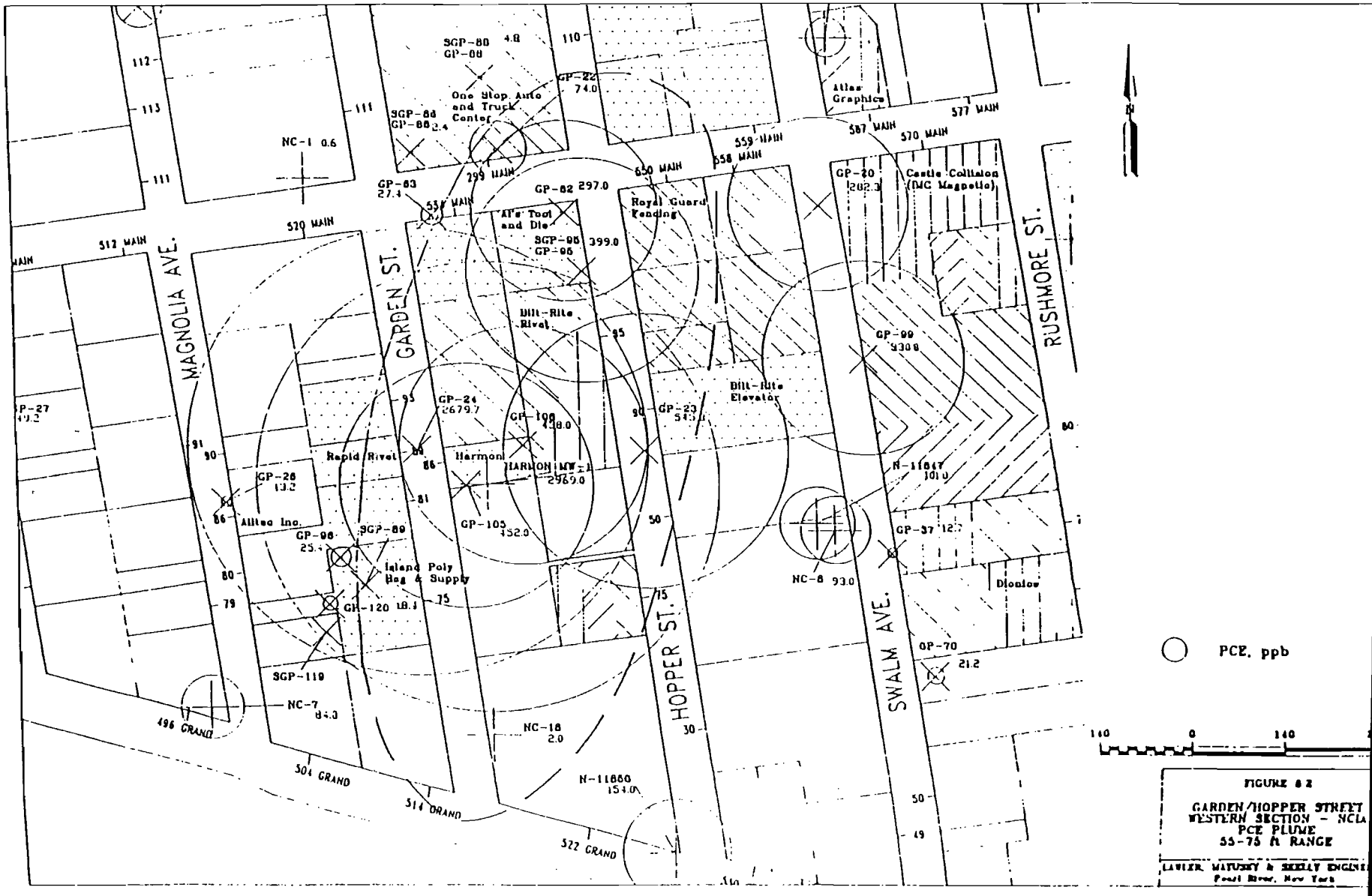


FIGURE 8.2

GARDEN/HOPPER STREET
WESTERN SECTION - NCIA
PCE PLUME
55-75 ft RANGE

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

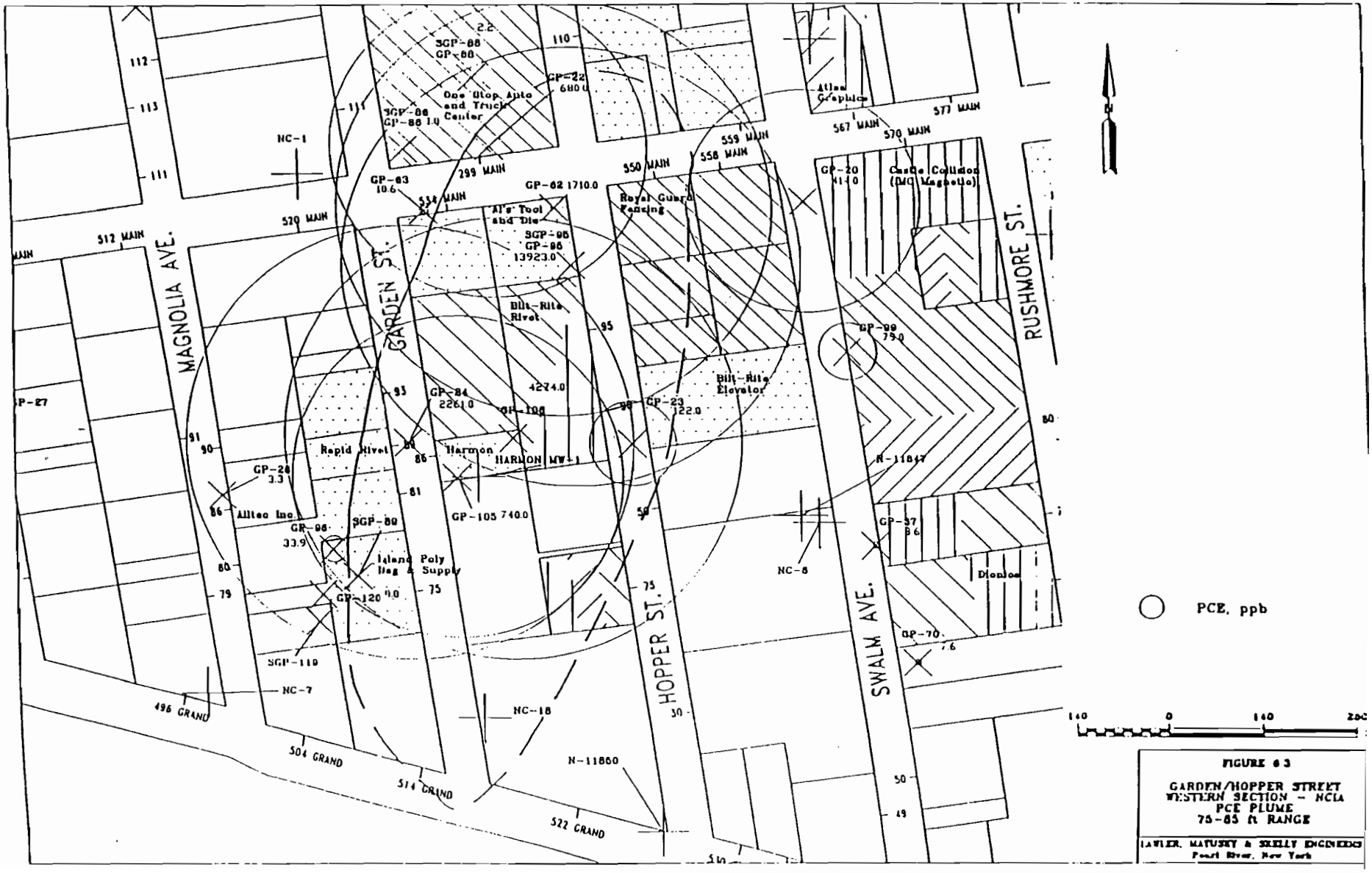


FIGURE 6 3

GARDEN/HOPPER STREET
WESTERN SECTION - NC1a
PCE PLUME
75-85 ft RANGE

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York


MAGNOLIA AVE.
GARDEN ST.
HOPPER ST.
SWALM AVE.
RUSHMORE ST.
NC-1
NC-7
NC-8
NC-18
SGP-88
GP-88
One Stop Auto and Truck Center
Atlas Graphics
GP-20
GP-63
GP-62
Al's Tool and Die
SGP-95
GP-95
Royal Guard Fencing
Castle Collision (IMO Magnetic)
Bilt-Rite Rivet
Bilt-Rite Elevator
GP-99
GP-24
1700.0
GP-106
GP-23
71.3
Rapid Rivet
Harmon
HARMON MW-1
GP-105
GP-26
16
Allied Inc.
GP-96
SGP-89
Inland Poly Bag & Supply
GP-120
SGP-119
GP-37
2.5
Dionlow
GP-70
N-11847
N-11850
GP-87
59.8
520 MAIN
534 MAIN
550 MAIN
558 MAIN
559 MAIN
567 MAIN
570 MAIN
577 MAIN
512 MAIN
496 GRAND
504 GRAND
514 GRAND
522 GRAND
PCE, ppb
140
0
140
FIGURE 6-4
GARDEN/HOPPER STREET
WESTERN SECTION - NCIA
PCE PLUME
85-95 ft RANGE
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York


MAGNOLIA AVE.
GARDEN ST.
HOPPER ST.
SWALM AVE.
RUSHMORE ST.
520 MAIN
554 MAIN
559 MAIN
558 MAIN
587 MAIN
570 MAIN
577 MAIN
589 MAIN
650 MAIN
299 MAIN
One Stop Auto and Truck Center
Atlas Graphics
Castle Collision (INC Magnello)
Al's Tool and Die
Royal Guard Fencing
Bilt-Rite Rivet
Bilt-Rite Elevator
Rapid Rivet
Allbee Inc.
Inland Poly Bag & Supply
Dionisos
496 GRAND
504 GRAND
514 GRAND
522 GRAND
530 GRAND
535 GRAND
PCE, ppb
140 0 140 280
FIGURE 6.8
570 MAIN STREET
WESTERN SECTION - NCLA
PCE PLUME
55-75 ft RANGE
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

FIGURE 6 6

570 MAIN STREET
WESTERN SECTION - NCIA
PCE PLUME
75-85 ft RANGE

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

FIGURE 8 7

570 MAIN STREET
WESTERN SECTION - NCIA
PCE PLUME
85-95 ft RANGE

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

CHAPTER 7

RECOMMENDATIONS

The PSA results have identified several areas exhibiting significant groundwater contamination within the NCIA. As illustrated in Figure 7-1, the bulk of the contamination is centered in three areas within the site - one in each of the western, central, and eastern sections. In each of these contaminated areas separate plumes based on the contaminants, the concentrations, and sources can be subdivided. LMS has detected two plumes in the western section, three in the central section, and two in the eastern section. Beyond these plume areas, the remaining area of the NCIA appears to be relatively uncontaminated.

Following the objectives stated in Chapter 2, LMS recommends that the NCIA site be removed from the hazardous site listing and that seven separate sites be added to the list. The delisting of the whole site would delist/remove the clean blocks/lots listed below, and the relisting of the seven plume areas will then list only the major contaminated areas. It should be noted that while no evidence of significant groundwater contamination below these areas was recorded, some contamination may exist at a deeper depth within the aquifer. It is, however, unlikely that these areas are the source of the contamination.

It is not clear what classification the seven plumes can be given. All plume areas have documented significant impact to the environment - the contaminant concentrations in an aquifer connected to a drinking supply aquifer are orders of magnitude higher than drinking standards and are a serious threat. But the second criterion for listing a site, documentation of a release or presence of hazardous wastes, has not been demonstrated in all plumes. The plume areas can be divided into the following categories:

- Documented Sole Sources. This plume (125 State Street) has one documented source and a relatively clearly defined contaminant plume that results from the sole source. This site can be listed as a Class 2, listing the facility where the source was discovered as the site.

- Documented Multiple Sources. These plumes (e.g., Arkwin/Tishcon) have good documentation that a number of sources were responsible for the contaminant plume. However, a number of other facilities within the plume area were also likely contributors to the contamination, based on historical information but no documented data. These plumes can be listed as Class 2 sites as documented sources were recorded. LMS recommends that the source facilities and the potential or suspected facilities within the plume be included as the site. If individual PRP facilities obtain data documenting that they were not a source,

FIGURE 7.1

SITE-WIDE - NCIA
DATA SUMMARY
55-75 ft DEPTH RANGE

LAWLER, MATUSKY & SKELLY ENGINE
Pearl River, New York

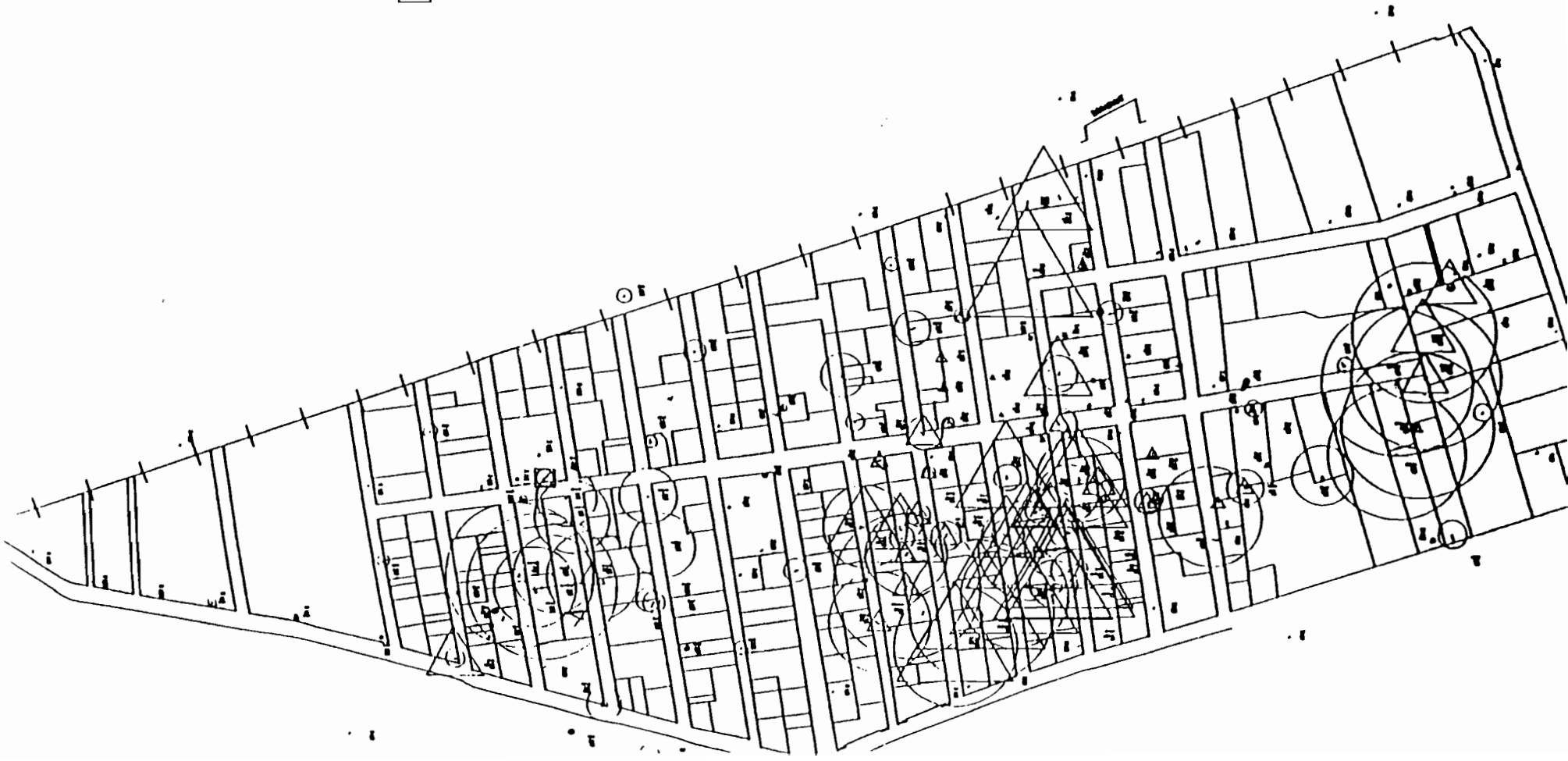
N

PCE

TCA

BTEX

NOTE:
NOT TO SCALE



these facilities can be delisted as petitioned; however, the "site" will still remain because of the known PRPs.

- Suspected Multiple Sources. These plumes (e.g., Garden Street/Sylvester Street) have good historical information that a number of facilities within the plumes were likely the source; however, documented data do not exist to date. LMS does not know whether the historical data are sufficient to document hazardous waste. We recommend two alternatives: (1) research the existing data files in more detail so as to find "documented" hazardous waste at one or more facilities, thereby listing the plume area as a Class 2a site (similar to above); or (2) list as Class 2a and go back to research and investigate the potential sources in detail.

- No Sources. These plumes (e.g., Block 328) have no documentation or other evidence to support the release of hazardous waste as found in the groundwater. Simply stated, we found no sources. We recommend these sites be classified 2a, and additional investigations be conducted to find the source.

7.1 WESTERN SECTION

In this section of NCIA two apparently overlapping contaminant plumes were detected; for the most part they are south of Main Street and between Rushmore and Garden streets. One of the plumes (the 570 Main Street plume) appears to have a well-defined source property; the other (Garden Street/Hopper Street plume) may have several source properties.

7.1.1 Garden Street/Hopper Street Plume

This plume is primarily composed of TCE and its breakdown products. It was detected in GP-22, -62, and -105, and HARMON-MW-1. In general, it appears that concentrations increase with depth. PCE from a separate source or overlap from the 570 Main Street plume was also detected in several of the monitoring points. It appears that a release of target compounds has occurred in the vicinity or upgradient of GP-62. Since source areas were not documented but there are a number of potential sources based on historical data, we label this plume area as suspected multiple sources and it can be listed as either Class 2 or 2a. The following properties should be included as in the listed site: 110 Hopper Street (Tax Block 145, lots 31 to 37), 559 Main Street (Tax Block 145, lots 38 to 45), 534 Main Street (Tax Block 71, lots 1 to 4), 542 Main Street (Tax Block 71, lots 5 to 8), 95 Hopper Street (Tax Block 71, lots 9 to 15 and 50 to 58), and 567 Main Street (Tax Block 145, lot 66).

FILE REVIEW DATABASE

WESTERN SECTION

New Cassel Industrial Area

TAX LOT	ADDRESS	CURRENT OCCUPANT	PREVIOUS SITE USAGE	WASTEWATER DISCHARGE HISTORY	HISTORIC CHEMICAL/WASTE INVENTORY	CONTAMINATION SOURCE POTENTIAL RANKING
	Town is Westbury ZIP is 11590		back to 1971 determined from review of Coles Directory 1972-1992		Information is from NCDOH BLR Hazardous Chemical/Waste Storage Locations databases run dates 3/87, 2/88, 6/88,9/89 Note these databases are not always current; see Island Transport below Island moved out 1982, records do not reflect this	
BLOCK 144– TWO SEPARATE PROPERTIES				no record		
11,144,27-54	299 Main St.	SAM-TON SALVAGE (USED CAR PARTS)(since 1982) This property was observed to be vacant during October 1993. There had been a fire that destroyed the interior of the building.The business moved to 96 Urban Ave.The building is being repaired. -ALSO, Scibelli Automotive occupies a building in the NE corner of the property	Island Transportation and Asphalt Petroleum occupied between 1972 and 1982; as of 1971 Mid-Island Transit and Crestwood Bus Service occupied the property	During Geoprobe Investigation heavy BTEX contamination was discovered in soils just above the water table; moderate groundwater contamination	ISLAND TRANSPORTATION (1971-82) methanol-500 gal TCE -80 gal mineral spirits-520 gal Waste Org.-non-halog. –3710gal lacquers, lacquer thinners Auto repainting observed during Geoprobe investigation	–HIGH– (BTEX)
11,144,55-61	1 Hopper St.	Nassau-Suffolk Recycling	no record 1992;Occupied by Baldwin Collision 1989-1991; no record 1983-1988;Frank's Frgn Auto 1981-1982;Nassau Auto Wrckng 1971-1980.			–MODERATE– Lacks downgradient monitoring point data
BLOCK 146 – SEVEN SEPARATE PROPERTIES						
11,145,20-25	132 Hopper	Frank & Sons Auto Wrecking	A & F Auto Wrecking 1971-1992		no record in NCDOH chem invent	–LOW– GP-21 is downgradient; NO
11,145,26-30	120 Hopper St.	EZ-EM Co & RAC Mechanical RAC since 1981	Occupied by Royal Athletic Supply between 1975 and 1980, no record prior to 1975.		ROYAL ATHLETIC paint-55000 gal	–LOW–
11,145,31-37, 41, 65	110 Hopper St.	Flexitherm Corp. since 1990	Occupied by Contemporary Packaging,1972-1976. No record 1976-1989,and prior to 1972		CONTEMPORARY PCKGNG IPA-1300 gal ethanol-22000gal PA-1300 gal Waste Ink-24000 lbs Waste Non-halo solvents-2200 gal	–MODERATE ?– prop is upgrad. of GP-22 (heavy BTEX) a boring between the two would provide confirmation

NEW YORK STATE SUPERFUND CONTRACT

SITE INVESTIGATION REPORT

New Cassel Industrial Area Site
North Hempstead, Nassau County

Site No. 130043

Work Assignment No. D002676-2.2

DATE: February 1995

Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
Langdon Marsh, *Commissioner*

Division of Hazardous Waste Remediation
Michael J. O'Toole, Jr., P.E., *Director*

By:
Lawler, Matusky & Skelly Engineers

NEW YORK STATE SUPERFUND CONTRACT

SITE INVESTIGATION REPORT

FINAL

New Cassel Industrial Area Site
North Hempstead, Nassau County

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Work Assignment No. D002676-2.2

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road
Albany, New York 12233

February 1995

Prepared By:

LAWLER, MATUSKY & SKELLY ENGINEERS
Environmental Science & Engineering Consultants
One Blue Hill Plaza
Pearl River, New York 10965

File No. 650-028

CHAPTER 1

EXECUTIVE SUMMARY

The New Cassel Industrial Area (NCIA) is located in the unincorporated village of Westbury, in the Town of North Hempstead, Nassau County, New York. Approximately 200 industrial or commercial businesses occupy this 170-acre site. The Nassau County Department of Health (NCDOH), in conjunction with a private consulting firm, conducted a subsurface investigation of the NCIA in 1985 to evaluate groundwater quality in the vicinity of this and several other sites in the county found to possess groundwater contamination problems. The investigation identified fairly extensive halogenated volatile organic contamination of groundwater beneath the site, and recommended further study. NCDOH also petitioned the New York State Department of Environmental Conservation (NYSDEC) to classify the site as a hazardous waste site, which it did (Class 2) in 1988.

Subsequently, numerous owners of property within the site have petitioned NYSDEC to isolate and remove their properties from the Class 2 list. NYSDEC has delisted many of the properties for which it received delist petitions with the qualification that if the pending site investigation showed these properties to be the source of the contamination, they would be relisted.

Lawler, Matusky & Skelly Engineers (LMS) was contracted by NYSDEC to conduct a site investigation for the NCIA. This report presents the findings of this investigation. Task 1 consisted of a file review of information pertinent to the site from various town, county, and state agencies. During Task 2 a comprehensive database summarizing the information gathered in Task 1 was compiled. During Task 3 groundwater samples were collected for analysis from 56 monitoring wells already located at the site. Samples collected from 40 groundwater probes located strategically throughout the site were analyzed in Task 4. The Geoprobe locations were sampled from multiple depths to provide vertical contaminant distribution information. This task also included preparation of a draft report presenting the results of Tasks 1 through 4 along with LMS' recommendations for additional work. Task 5 consisted of a second phase of groundwater probes and suspected source area sampling along with selected facility inspections. Tasks 6 and 7 constitute preparation of this report and additional file investigations.

The data generated from the sampling have been analyzed and used to generate contaminant plume maps. Several groundwater volatile organic compound (VOC) contaminant plumes were delineated during the assessment, and the properties potentially contributing to these plumes have been identified. The contaminant plume distributions have been analyzed with respect to

current and previous property usage for the entire site, incorporating chemical use and spill information gathered from extensive file review.

The investigation has identified several areas exhibiting significant groundwater contamination within the NCIA. The bulk of the contamination is centered in three areas within the site: one in each of the western, central, and eastern sections. In each of these contaminated areas separate plumes based on the contaminants, concentrations, and sources can be subdivided. LMS has detected two plumes in the western section, three in the central section, and two in the eastern section. Beyond these plume areas, the remaining area of the NCIA appears to be relatively uncontaminated.

Following the objectives stated in Chapter 2, LMS recommends that the NCIA site be removed from the Registry of Inactive Hazardous Waste Sites and that individual sites with documented hazardous waste disposal be added to the registry. Other sites are recommended as suspected hazardous waste sites because the data suggest that they are potentially adding to the measured contaminant plumes but hazardous waste disposal has yet to be documented. The delisting of the whole site would delist or remove all sites in the NCIA that had no hazardous waste disposal and no significant groundwater contaminants. The tax blocks are listed in Chapter 7 by section.

LMS recommends that the following sites be restored to the registry. The documentation and data supporting these recommendations are presented in Chapter 7.

Western Section

- **Castle Collision** (IMC Magnetics), 570 Main Street (Tax Block 73, lots 1-12, 63-75)
- **Atlas Graphics**, 567 Main Street (Tax Block 164, lot 66)

Central Section

- **Tishcon Corporation**, 125 State Street (Tax Block 181, lot 84)
- **Arkwin Industries**, 648-656 Main Street (Tax Block 78, lots 1-8), 662-670 Main Street (Tax Block 79, lots 1-8), 66 Brooklyn Avenue (Tax Block 79, lots 266-270)
- **Tishcon Corporation**, 30-36 New York Avenue (Tax Block 78, lots 78, 19-21), 31-33 Brooklyn Avenue (Tax Block 79, lots 79 and 56-58), 29 New York Avenue (Tax Block 77, lots 47-50)

- **Industrial Mets** (Tishcon), 68 Kinkel Street (Tax Block 76, lots 9-12)

- **Metpar Steel Products**, 95 and 97-99 State Street (Tax Block 161, lots 41, 42, and 5-8)

It is recommended that the following sites be considered suspected hazardous waste sites. They will require additional investigation to determine whether hazardous waste was disposed of on-site and impacted the groundwater:

Western Section

- **Flexitherm Corporation**, 110 Hopper Street (Tax Block 145, lots 31-37)

- **IET Labs**, 534 Main street (Tax Block 71, lots 1-4)

- **Al's Tool and Die**, 542 Main Street (Tax Block 71, lots 5-8)

- **Harmon Associates**, 86 Garden Street (Tax Block 71, lots 16-17)

- **Bilt-Rite Steel-Buck**, 95 Hopper Street (Tax Block 71, lots 9-15 and 50-58), and **Bilt Rite Elevator**, 90 Hopper Street (Tax Block 72, lots 14-17 and 59-62)

Central Section

- **Glassblock Warehouse**, 38 Kinkel Street (Tax Block 76, lots 22-29)

- **Micro-Ray Corporation**, 49 Sylvester Street (Tax Block 76, lots 66-68)

- **Doak Dermatologies**, 62 Kinkel Street and 67 Sylvester Street (Tax Block 76, lots 13-15 and 69-72)

- **Arkwin Industries**, 33 Sylvester Street (Tax Block 76, lots 57-65)

Eastern Section

- **Nationwide Paint** (?[1]), 750 Main Street (Tax Block 328, lot 178)

- **Eastern Main Street**

- **Utility Manufacturing Company**, 700 Main Street (Tax Block 320, lot 176), list as 2a

- Former **Wonder King Chemical**, 710-712 Main Street (Tax Block 328, lot 188), list as 2a

[1]Reported former use of this address; the exact name, however, could not be verified.

along the northern and western property boundary. Several drums of what appeared to be waste oil or diesel were noted to the rear of the property. Although not verified, one or more leach pools is believed to exist in the western (rear) alley.

87-89 Garden Street. Rapid Rivet and Fastener Corporation has been on-site for seven years (Appendix B, Photo 28). The company, which ships and distributes specialty rivets and fasteners, is a dry operation and does not use or store any chemicals. The space is leased and information on past uses and disposal histories is limited. A single floor drain noted inside the building was reportedly installed to accept storm water that occasionally seeps into the building. Other than toward the front or inside the building, there are no areas where a leach pool could be located. The building covers most of the lot and there are no alleys.

80-86 Magnolia Avenue. Alltec Inc., which sells and services power washers, has been on-site for three years (Appendix B, Photo 30). The occupants are unaware of past uses: the building had apparently been vacant for some time. NCDH records indicate that Impetus Industries (AEC Corporation) was formerly located at this address. Soaps and cleaners are stored but no solvent-based cleaners. Alltec had no knowledge of any leach pools on-site. Several suspected pools were identified to the rear and front of the building, but the owner objected to any sampling so the presence of former leach pools could not be verified.

299 Main Street. One Stop Auto and Truck Centers has occupied this address since April 1994 (Appendix B, Photos 21 and 22). A full-service auto and truck garage, the firm currently has no underground storage. There were no floor drains within the garage, although there was a grated drain along the garage doors. Where this drain discharges is unknown as the rear lot has been recently paved, covering over signs of old leach pools (Appendix B, Photo 23). The site was formerly a junkyard (Sam-Ton Salvage) for approximately 20 years. Several features at the site suggest that there once was underground storage at the site (Appendix B, Photo 24). Heavy BTEX contamination was noted in a soil sample just above the water table in GP-22 located near this address. NCDOH records indicate Island Transport formerly occupied the site and reportedly used 80 gal/year of trichloroethylene (TCE).

570 Main Street. Castle Collision is located in the southern portion of the building at this address; the northern portion is vacant. Castle Collision is a full-service autobody repair and painting garage. The site was formerly in use by IMC Magnetics, which manufactured precision pumps for the aircraft industry. When IMC Magnetic moved to Hauppaug, New York, a number of leaching pools, septic tanks, and floor drains were abandoned. NCDOH

CHAPTER 6

CONCLUSIONS

6.1 OVERVIEW

The presence of halogenated aliphatic compounds, such as TCE, PCE, and TCA, in groundwater are typically the result of direct discharges of industrial wastes (e.g., degreasers and cleaning solvents) to the ground surface and not the result of biochemical degradation. This is the most probable source of these contaminants detected in groundwater samples collected from the site. When TCE, PCE, and TCA are present significant products of degradation can be cis-1,2-dichloroethylene (cis-DCE) and 1,1,-dichloroethane (1,1-DCA). It has been found that halogenated aliphatic compounds, which include chlorinated solvents, can be degraded to varying degrees through both biotic (hydrogenolysis) and abiotic (dehydrohalogenation) processes.

PCE will undergo hydrogenolysis to produce TCE; however, TCE will more rapidly degrade into cis-DCE. Because the transformation rates for TCE to degrade to cis-DCE are much faster than the rates for cis-DCE to degrade, it is more likely that cis-DCE will be detected in the environment rather than TCE, as a result of biochemical degradation. This would probably account for the cis-DCE detected at the site. cis-DCE has been shown to degrade to vinyl chloride (VC) and/or chloroethane (CA); however, the transformation rates are very slow and these compounds are typically not detected in the environment as a result of biochemical degradation.

TCA normally undergoes hydrogenolysis to produce 1,1-DCA and would appear to account for the presence of this compound in samples collected from the site. 1,1-DCA has also been found to degrade to VC and/or CA; however, it is unlikely they would be detected because of the very slow transformation rates discussed earlier. There is no evidence that TCA will degrade to 1,2-dichloroethane (1,2-DCA), and the presence of 1,2-DCA in samples collected from the site may be indicative of impurities that exist in many of the commercial solvents used. This is also true of the breakdown products discussed earlier, many of which can be found in varying quantities as impurities in the solvents purchased by commercial businesses.

Correlation of the soil and groundwater data with information assembled during Tasks 1 and 2 facilitated the preparation of integrated chemical use/spill and contamination maps. The site has been divided into three sections - western, central, and eastern - for convenience (Figure 6-1). The western section consists of all properties west of Urban Avenue, including those

along the west side of Urban Avenue. The central section consists of all properties east of Urban Avenue and west of Bond Street, including those along the east side of Urban Avenue and the west side of Bond Street, respectively. The eastern section consists of the properties east of Bond Street, including those along the east side of Bond Street.

The three maps prepared for each section show the contaminant distribution in groundwater for depth intervals at 55-75, 75-85, and 85-95 ft (Figures 6-2 through 6-27). The plumes are defined as area where the total PCEs, TCAs, and BTEX compounds exceeded 100 ppb. The legend for each of these maps (Figures 6-2 through 6-27) is found on Table 6-1. Note: The contaminant concentrations and plumes illustrated on these figures are total PCEs (PCE + TCE + DECs + VC), total TCAs (1,1,1-TCA + DCA), and total BTEXs (BTEX + chlorobenzene). The properties represented on the map are variously shaded to indicate recorded usage or spillage of the target compounds or, where applicable, suggested target compound usage based on known site operations (cases in which no chemical usage information was available for the property). Large-scale maps of each section have also been prepared. These plates are found in the supporting documentation.

6.2 WESTERN SECTION

The western section of the site is a triangular region bounded on the east by Urban Avenue, on the north by the Long Island Rail Road, and on the south by Grand Boulevard. Two apparently overlapping groundwater contaminant plumes were detected in the middle portion of this section; delineation of the two plumes is based on the data available. Other than the two plumes mentioned above, pronounced groundwater contamination beneath this portion of the site was not detected. Figures 6-2 through 6-7 present the plume maps.

6.2.1 Garden Street/Hopper Street Plume

A plume was detected starting at monitoring points GP-22 and -62 and extending downgradient past GP-105 and HARMON-MW-1 (Figure 6-2). The upgradient extent of this plume appears to be near 110 Hopper Street, but no monitoring points are located in this area to confirm this. In the two most upgradient points within this plume the total PCE concentrations increased with depth (Figures 6-2 and 6-3). In GP-22 total PCE increased from 74 to 680 ppb. In GP-62 total PCE increased from 297 to 1710 ppb. A similar trend was seen in GP-95, increasing in concentration from 399 to 13,923 ppb. The plume exhibits moderate to heavy TCE contamination in its mid-position (GP-105 and -106, HARMON-MW-1, and GP-24). At the water table (52 ft) concentrations of 1,2-DCE and TCE were 2300 and 660 ppb, respectively, in HARMON-MW-1. In GP-105 and -106 the shallow samples (taken from 63-65 ft) exhibited

much less DCE and TCE than HARMON-MW-1. However, with depth at GP-106 TCE (2000 ppb) and PCE (2200 ppb) were much greater than GP-105 or HARMON-MW-1. The inference is that the contaminant distribution in this area represents potentially overlapping plumes, with the appearance of PCE at depth being the marker compound. It is believed that the PCE may have originated from a newer spill of PCE associated with the 570 Main Street plume. This hypothesis is supported by the contaminant distribution in GP-24, which exhibits more PCE breakdown products, including VC.* GP-24 is believed to be more representative of an older historical spill within the plume area.

Heavy BTEX contamination was also detected in soil samples collected from the 10-ft interval just above the water table in GP-22. Groundwater was moderately contaminated with toluene and xylenes (approximately 200 ppb), with a slight increase in concentration with depth. Low levels of benzene and o-xylene (50 ppb total) were detected in the 68-70 ft sample from GP-24. The BTEX soil and groundwater contamination at GP-22 indicates some type of petroleum spill in the vicinity of GP-22. A low-level plume has migrated via groundwater at least as far as GP-24.

In summary, a release of PCE has occurred in the vicinity or upgradient of GP-62 and -95. The DCE contamination detected in GP-24, HARMON MW-1, and GP-105 and -106 may be related to this spill as it is a breakdown product of PCE. GP-22 is monitoring residual PCE that has not migrated downgradient and degraded to DCE. VC appears to be forming in the vicinity of GP-24 as a result of degradation of DCE. The elevated PCE found in GP-106 may indicate that this plume and the 570 Main Street plume overlap in this area.

Possible sources for the PCE spill include 110 Hopper Street. Although this address is not on record as using any of the chlorinated solvents, the operations at this site suggest that use of these materials is possible.

Alternatively, the chlorinated solvent contamination at GP-24 and HARMON-MW-1 may be the result of a source located between them and GP-22 (i.e., 534/542 Main Street/95 and 90 Hopper Street). Under this scenario GP-22 is monitoring an isolated (chlorinated solvent) spill

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*It is theoretically possible for DCE to degrade to VC (Fetter 1993), although this process is not usually observed. The presence of VC in groundwater is usually better explained as the result of a direct discharge of VC, or as an impurity in discharged PCE or TCE solvent. However, industrial sources of VC are usually limited to plastics (PVC) manufacturing facilities (Howard 1990). Since there are no such facilities in the vicinity, and VC was not detected at GP-22 as an impurity in the PCE/TCE source, the most probable cause for the VC detected at GP-24 is degradation of the DCE present.

as well as a BTEX spill and the contamination detected at GP-24, HARMON-MW-1, and GP-105 and -106 is related to a separate spill of PCE or possibly DCE and VC. DCE is manufactured commercially, although its uses are not typically those found at the site, except possibly as an additive to lacquer-type paint (Verschueren 1983). The VC at GP-24 could be present as an impurity in discharged DCE or as a result of degradation of discharged DCE. The facility at 95 Hopper Street uses various paints, both lacquer and enamel, in the manufacturing process that takes place there.

6.2.2 570 Main Street Plume

A second plume was detected below this portion of the site, to the east of the plume described above (Figures 6-5 to 6-7). The source of this plume appears to be the former IMC Magnetics facility located just upgradient of GP-20. The eastern edge of this plume appears to proceed to the southwest from Main Street between NYT MW-2 and GP-99, then between N-11847 and GP-37. The downgradient edge of the plume appears to be between N-11850 and NC-20; this is tentative based on these two shallow monitoring points. The western extent of this plume is not as obvious as the plume appears to overlap with the plume to west.

PCE and TCE were detected in GP-20; both increased in concentration with depth. PCE, TCE, and 1,1,1-TCA were detected at moderate levels in GP-23; all decreased in concentration with depth. The typical breakdown products were not detected in appreciable concentrations.

Based on the vertical distribution of PCE and TCE in GP-20, it appears that this point, GP-23, and GP-99 are monitoring the same plume of total PCE. The hypothesis is that a "slug" of DNAPL has migrated downward through the groundwater near 570 Main Street. This accounts for the increasing concentrations with depth at GP-20. It is not known whether the DNAPL is PCE or TCE. Chemical usage and closure testing at 570 Main Street suggest it may be PCE and the noted TCE concentrations are the result of PCE breakdown or a separate upgradient TCE source. The measured concentrations in GP-23 and -99 would then be accounted for as lateral migration from the DNAPL.

In summary, a PCE or TCE spill has occurred in the vicinity or upgradient of GP-20. The most obvious source candidate is 570 Main Street, where there was a documented release of these compounds. Closure work at this site in 1993 identified several areas of apparently heavy contaminant discharge to on-site septic systems and floor drains. Extremely high concentrations of toluene, xylenes, 1,1,1-TCA, PCE, and methyl chloride as well as chromium and cadmium were detected in samples collected from septic systems and floor drains (see Section 5.2.3, 570 Main Street). A septic system and leach pool system located on the northeast (area 2) and

CHAPTER 7

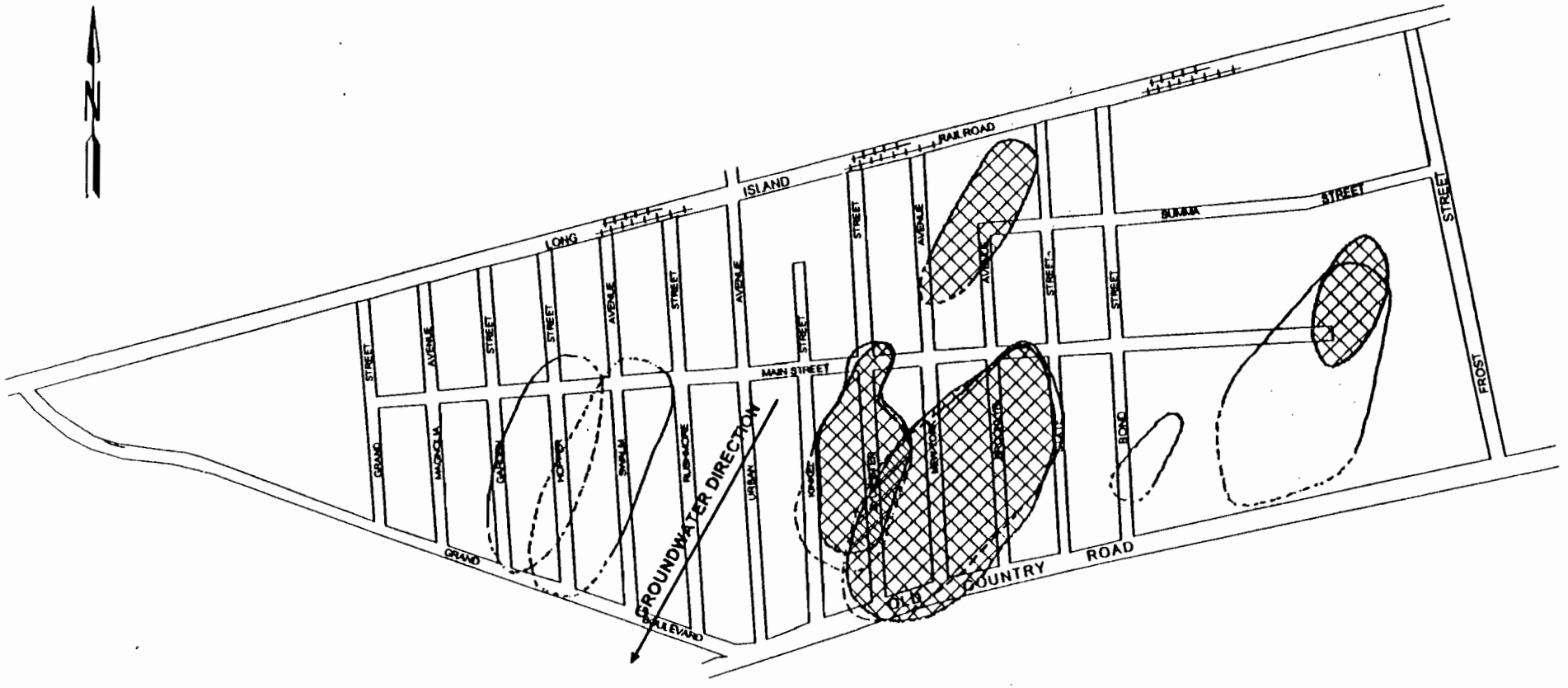
RECOMMENDATIONS

The site investigation results have identified several areas exhibiting significant groundwater contamination within the NCIA. As illustrated in Figure 7-1, the bulk of the contamination is centered in three areas within the site - one in each of the western, central, and eastern sections. In each of these contaminated areas separate plumes based on the contaminants, the concentrations, and sources can be subdivided. LMS has detected two plumes in the western section, three in the central section, and two in the eastern section. Beyond these plume areas, the remaining area of the NCIA appears to be relatively uncontaminated.

Following the objectives stated in Chapter 2, LMS recommends that the NCIA site be removed from the hazardous site listing and that individual properties that appear to be the sources of the contaminant plumes be relisted as individual sites. Delisting of the whole site would delist or remove the blocks/lots with little or no contamination; relisting of individual properties would put back specific, named sites that will require remediation or additional investigations. It should be noted that while no evidence of significant groundwater contamination was noted in many areas, some contamination may exist at greater depths within the aquifer. It is unlikely, however, that these areas are the source of the contamination.

According to Title 13, Article 27, of the State Environmental Conservation Law, the Registry of Inactive Hazardous Waste Sites must include all known hazardous waste sites. To be included in the registry, it must be confirmed that hazardous wastes were disposed of or are present on the site. Sites with confirmed hazardous wastes are then classified according to the effects of that contamination on the environment or human health. Classification 2 is for sites for which there is information sufficient to determine that they pose a significant threat to the public health or environment; Classification 2a is for sites with insignificant information to make a significant threat determination; Class 3 is for sites that do not pose a significant threat. Sites without documentation of hazardous waste disposal are not included on the registry; however, they may be investigated further if it is suspected that hazardous wastes were disposed of.

At the NCIA site past studies and this investigation have documented a significant impact to the environment and threat to the public health: measured contaminant concentrations in an aquifer connected to a drinking supply aquifer are orders of magnitude higher than drinking water standards. This investigation has narrowed the impacted area to seven major plumes and identified individual facilities/properties on-site within these areas that may be the source of the



LEGEND

Total PCE plume (PCE, TCE, DCEs, VC), >100 ppb

Total TCA plume (1,1,1-TCA, DCAs), >100 ppb

0 ~500 ft

APPROXIMATE SCALE
1 in. = 500 ft

FIGURE 7-1

CONTAMINANT PLUMES
1993-1994 INVESTIGATION

NEW CASSEL INDUSTRIAL AREA
NYSDEC I.D. No. 130043

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

contamination. Documentation of hazardous waste disposal related to the contaminated plume at these sites was developed as follows:

- Suspected sites were identified either by existing or past site use, file data, or location within a highly contaminated plume area.

- Through additional file or report research or information obtained during site inspections and/or site sampling, documentation of chemical usage and source data was obtained. Chemical usage documents the chemical and amounts used currently or (more importantly) in the past at the sites. Past usage is particularly important because prior to the late 1970s and 1980s the entire NCIA used septic systems for waste disposal. Source data refer to sampling data that indicate the presence of contaminant chemicals on-site, usually in old seepage pits.

- The monitoring well and Geoprobe data were analyzed for each site to determine upgradient and downgradient contaminant concentrations. In general, if the downgradient concentrations were three times the upgradient concentrations of the same contaminant, then it would appear that the site was responsible for a release of that contaminant.

- If the chemical usage or source data correlate with the plume data, i.e., the same or related chemicals, then it is reported that hazardous waste disposal documentation exists for that site and the site should be relisted on the registry.

A summary of the analysis for each suspected site is presented on Table 7-1. Interpretation and recommendations for each site are presented below, grouped according to section and plume areas.

7.1 WESTERN SECTION

In this section of NCIA two apparently overlapping contaminant plumes were detected; for the most part they are south of Main Street and between Rushmore and Garden streets. One of the plumes (the 570 Main Street plume) appears to have a well-defined source property; the other (Garden Street/Hopper Street plume) may have several source properties.

7.1.1 Garden Street/Hopper Street Plume

This plume is primarily composed of TCE and its breakdown products. It was detected in GP-22, -62, and -105 and HARMON-MW-1. In general, it appears that concentrations increase with depth. PCE from a separate source or overlap from the 570 Main Street plume was also detected in several of the monitoring points. It appears that a release of target compounds has occurred in the vicinity or upgradient of GP-62. The properties that fall within this plume area and our recommendations are as follows:

- **One Stop Auto and Truck Center**, 299 Main Street (Tax Block 145, lots 37-44). This is the only address within this plume area that has a documented use of a target compound. A former use at the site, Island Transport, reportedly used 80 gal of TCE per year. Several groundwater (GP-86 and -88) and soil (SGP-86 and -88) samples did not identify a source of chlorinated compounds. BTEX compounds were found. The downgradient point (GP-22) was not significantly elevated in comparison to the upgradient point (GP-88). The data do not support a correlation with the major contaminant plume; therefore, it is recommended that this site not be included in the registry at this time.

- **Flexitherm Corporation**, 110 Hopper Street (Tax Block 145, lots 31-37). This address is located at the very upgradient edge of this plume. The chemical usage history indicates chemicals are used at the address, but they are not chlorinated compounds. This address should be considered a suspected hazardous waste site and additional investigation may be needed.

- **IET Labs**, 534 Main Street (Tax Block 71, lots 1-4). This address is located near the upgradient edge of this plume. The chemical usage history and past uses at this address do not indicate that this address is the source. The downgradient sampling point, GP-24, does, however, exhibit high concentrations. This address should be considered a suspected hazardous waste site and additional investigations may be needed.

- **Al's Tool and Die**, 542 Main Street (Tax Block 71, lots 5-8). This address is also located near the upgradient edge of the plume and is just east of 534 Main Street. Again, the chemical use history does not indicate that this address is the source, but the downgradient point (GP-24) does exhibit high concentrations. This address should be considered a suspected hazardous waste site and additional information may be needed.

- **Harmon Associates**, 86 Garden Street (Tax Block 71, lots 16-17). This address is currently used by Harmon Associates as office space. There is no documented chemical usage. The downgradient sample, HARMON MW-1, does exhibit elevated concentrations of DCE (2300 ppb) and TCE (660 ppb). This address should be considered a suspected hazardous waste site based on the high downgradient concentrations.

- **Bilt-Rite Steel-Buck**, 95 Hopper Street (Tax Block 71, lots 9-15 and 50-58), and **Bilt-Rite Elevator**, 90 Hopper Street (Tax Block 71, lots 14-17 and 59-62). These two addresses also exhibit high downgradient vs upgradient concentrations. Both use large quantities of paints and thinners, but the file review information does not specify types. These addresses should be considered as suspected hazardous waste sites based on high downgradient concentrations.

7.1.2 570 Main Street Plume

This total PCE plume falls roughly between NYT MW-2 and GP-99, then between N-11847 and GP-37. Along its western extent it likely overlaps with the Garden Street/Hopper Street plume. Two properties appear to be the source of this plume.

- Former **IMC Magnetics** facility, 570 Main Street (Tax Block 73, lots 1-12 and 63-75). This property, which currently houses **Castle Collision**, was used by IMC Magnetics for a number of years. IMC Magnetics reportedly used up to 810 gal of TCE per year. Three separate source areas and a number of floor drains have been observed at the site. These source areas contain elevated levels of target compounds and metals (TCA concentrations up to 668 ppb and PCE concentrations up to 14%). The upgradient sampling point (NC-17) for this property did not detect TCE or PCE, while the downgradient sample contained TCE at 220 ppb and PCE at 55 ppb. This address should be listed as a hazardous waste site. An IRM should also be conducted to remove the most heavily contaminated source areas that may be impacting the groundwater.

- **Atlas Graphics**, 567 Main Street (Tax Block 164, lot 66). This address has a reported use of 312 gal/year of TCE by Atlas Graphics and a documented discharge of TCE to a cesspool in 1977. The downgradient point (GP-20) showed elevated concentrations of TCE (220 ppb) and PCE (55 ppb), while the upgradient sample showed concentrations of TCE at 38 ppb and PCE at 12 ppb. This address is recommended to be listed as a hazardous waste site.

7.1.3 Clean Areas in Western Section

Based on data collected during the site investigation, a large portion of the western section can be delisted as these areas are free of significant VOC groundwater contamination. These areas include the addresses that fall within Block 330 (460, 468, and 482 Grand Boulevard); Blocks 69 and 141 (area between Grand Street and Magnolia Avenue); Block 143; Block 144 north of 299 Main Street; Blocks 145, 164 (except lot 66), 174, and 178 north of the properties along Main Street; Block 74, and Block 174.

TABLE 5-13

GEOPROBE CHLORINATED HYDROCARBONS DATA SUMMARY (OCTOBER 1993)

85 - 95 ft Range

New Cassel Industrial Area

Sample Point I.D.	Actual Sample Depth (ft)	Vinyl chloride	1,1-DCE	1,2-t-DCE	1,1-DCA	1,2-c-DCE	1,1,1-TCA	1,2-DCA	TCE	PCE
GP-4	85-87	ND	ND	ND	7.1	ND	9.3	ND	4.2	7.4
GP-9	88-90	ND	ND	ND	ND	ND	ND	ND	1.3	65.0
GP-10	85-87	ND	280.0	ND	93.0	18.0	900.0	4.8	150.0	62.0
GP-11	85-87	ND	25.0	ND	98.0	1.7	146.0	ND	38.0	14.0
GP-13	87-89	ND	2.2	ND	5.1	ND	2.3	ND	2.2	7.8
GP-15	88-90	ND	4.0	ND	ND	ND	8.3	ND	10.0	11.0
GP-16	85-87	ND	ND	ND	ND	ND	ND	ND	86.0	ND
GP-18	88-90	ND	ND	ND	ND	ND	5.1	ND	ND	ND
GP-19	88-90	ND	ND	ND	ND	4.8	2.0	ND	8.3	40.0
GP-20	88-90	ND	ND	ND	ND	9.6	3.1	ND	2000.0	150.0
GP-21	88-89	ND	ND	ND	ND	ND	ND	ND	ND	1.2
GP-22	88-90	ND	ND	ND	ND	11.0	ND	ND	17.0	46.0
GP-23	88-90	ND	ND	ND	ND	1.3	3.6	ND	49.0	21.0
GP-24	88-90	1000.0	ND	ND	ND	700.0	ND	ND	ND	ND
GP-25	88-90	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP-26	88-90	ND	ND	ND	ND	ND	ND	ND	ND	1.6
GP-27	88-90	ND	ND	ND	ND	5.8	5.4	ND	26.0	28.0
GP-30	86-88	ND	14.0	ND	220.0	8.5	150.0	ND	3.4	25.0
GP-31	88-90	ND	ND	ND	ND	ND	15.0	ND	48.0	21.0
GP-32	88-90	ND	190.0	ND	180.0	4.6	2300.0	7.5	32.0	5300.0
GP-33	88-90	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP-34	88-90	ND	ND	ND	ND	ND	ND	ND	ND	1.6
GP-36	88-90	ND	ND	ND	ND	ND	1.1	ND	ND	2.2
GP-37	88-90	ND	ND	ND	1.1	1.1	ND	ND	ND	1.4

All data in µg/l.

ND - Not detected.

Disk No HS4946 OLD DATA XLS Geoprobe 85 95 ft 10/10/94 4 28 46 PM

TABLE 5-5 (Page 1 of 2)

GEOPROBE CHLORINATED HYDROCARBONS DATA SUMMARY (OCTOBER 1993)

65 - 75 ft Range
New Cassel Industrial Area

Sample Point I.D.	Actual Sample Depth (ft)	Vinyl chloride	1,1-DCE	1,2-t-DCE	1,1-DCA	1,2-c-DCE	1,1,1-TCA	1,2-DCA	TCE	PCE
P-1	73-75	ND	ND	ND	ND	ND	ND	ND	ND	ND
P-2	73-75	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP-1	68-70	ND	ND	ND	ND	380.0	5.7	ND	76.0	220.0
GP-2	66-68	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP-3	70-72	ND	ND	ND	ND	ND	3.9	ND	16.0	1.0
GP-4	73-75	ND	ND	ND	1.1	2.7	50.0	ND	140.0	2.2
GP-5	68-70	ND	1.3	ND	1.2	ND	1.3	ND	ND	1.9
GP-6	72-74	ND	98.0	ND	90.0	8.9	800.0	ND	3.5	42.0
GP-7	72-74	ND	ND	ND	ND	ND	11.0	ND	5.6	7.6
GP-8	69-71	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP-9	66-68	ND	ND	ND	ND	1.5	ND	ND	2.1	70.0
GP-10	65-67	ND	540.0	ND	150.0	20.0	3200.0	ND	92.0	84.0
GP-11	65-67	ND	100.0	ND	27.0	5.9	460.0	1.1	23.0	12.0
GP-12	68-70	ND	520.0	2.5	210.0	ND	1200.0	ND	440.0	62.0
GP-13	70-72	ND	ND	ND	ND	ND	ND	ND	ND	2.0
GP-14	66-68	ND	20.0	ND	150.0	76.0	360.0	ND	22.0	25.0
GP-15	68-70	ND	66.0	ND	27.0	44.0	93.0	ND	470.0	89.0
GP-16	65-67	ND	ND	ND	ND	ND	ND	ND	14.0	1.1
GP-17	72-74	ND	1.6	ND	4.1	20.0	2.1	ND	4.3	77.0
GP-18	68-70	ND	ND	ND	ND	ND	ND	ND	ND	92.0
GP-19	68-70	ND	ND	ND	ND	3.1	1.6	ND	ND	53.0
GP-20	68-70	ND	ND	ND	ND	7.3	2.8	ND	220.0	55.0
GP-21	68-70	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP-22	68-70	ND	ND	ND	ND	13.0	ND	ND	11.0	50.0
GP-23	68-70	ND	21.0	ND	ND	4.8	130.0	ND	240.0	280.0

All data in µg/l.
ND - Not detected.
Data: HS4946 OLD:DATA XLS Geoprobe 65-75 ft 10/12/94 10 57 51 AM

NEW YORK STATE SUPERFUND CONTRACT

MULTISITE PSA TASK 4 REPORT

New Cassel Industrial Area Site
North Hempstead, Nassau County

Hopper/Main Street Site	Site No. 130043J
E-Z-EM Site	Site No. 130043N
Tops Appliance City Site	Site No. 130043O
Swalm Avenue Site	Site No. 130043P
Sylvester Street Site	Site No. 130043Q
New Cassel Data Review Sites	Site No. 130043

Work Assignment No. D002676-12B-1

DATE: March 1997

Report • Appendix A

Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
John Cahill, *Acting Commissioner*

Division of Hazardous Waste Remediation
Michael J. O'Toole, Jr., P.E., *Director*

By:

Lawler, Matusky & Skelly Engineers LLP

CHAPTER 1

EXECUTIVE SUMMARY

The New Cassel Industrial Area (NCIA) is located in the unincorporated Village of Westbury in the Town of North Hempstead, Nassau County, New York (Figure 1-1). Approximately 200 industrial or commercial businesses occupy this 170-acre site (Figure 1-2). Due to extensive halogenated volatile organic compound (VOC) contamination of groundwater beneath the site, the New York State Department of Environmental Conservation (NYSDEC) classified the entire industrial area as a hazardous waste site in 1988.

Lawler, Matusky & Skelly Engineers LLP (LMS) was contracted by NYSDEC in 1992 to conduct a site investigation of the NCIA. The objectives of the site investigation were to delineate the contaminant plumes under the site, locate the source of the contaminants, and redefine the site according to measured contamination.

The initial investigations conducted in 1993 and 1994 identified several areas exhibiting significant groundwater contamination within the NCIA (LMS 1994). Potentially responsible parties for the two central section plumes and one of the western section plumes were identified; those facilities were listed as Class 2 on the New York State Registry of Inactive Hazardous Waste Disposal Sites. The remaining four sites within the plume regions were designated as potential registry sites requiring additional investigation. The original all-encompassing New Cassel site was removed from the registry, thereby delisting all sites except those relisted.

LMS was assigned to conduct a multisite Preliminary Site Assessment (PSA) in 1995 on the remaining four sites that required additional investigation. The objectives of the multisite PSA were to further delineate the contaminant plumes at the four sites, locate the sources of the contaminants, and assess the threat of each source to the environment. Based on the multisite PSA investigation data five properties were recommended for inclusion on the Registry of Inactive Hazardous Waste Sites, 15 properties were determined to be not included on the registry, and 12 properties were determined to be potential registry sites.

To resolve the status of the 12 remaining properties that were included in potential registry sites and address data gaps for several properties in the industrial area, Task 4 multisite PSA investigation activities were conducted. The investigation included additional file reviews, facility inspections, soil and groundwater probes, and on-site mobile laboratory analysis. The data generated from the Task 4 multisite PSA investigation documented usage of hazardous waste, identified on-site sources, and further delineated the plumes. Based on the data, the following classification of facilities within the four sites are recommend:

- **Class 2 Hazardous Waste Sites:**

299 Main Street	One Stop Auto & Truck Center
118-138 Swalm Avenue	Liqui-Mark Corporation
Vacant Lot (Block 145, Lots 38, 39, 40) at Corner of Hopper & Main Streets	Former Junkyard

- **Remain as Class 2 Hazardous Waste Sites:**

29 New York Avenue	Former Tishcon Facility

- **Class 4 Hazardous Waste Sites:**

750 Summa Avenue	E-Z-EM

- **Remain as Potential Registry Sites Pending the Identification of an Upgradient Source:**

95 Hopper Street	Bilt-Rite Steel Buck
542 Main Street	Al's Tool & Die
49 Sylvester Street	Micro-Ray Corporation
33 Sylvester Street	Arkwin Industries
36 Sylvester Street	Tishcon Corporation

- **Sites That Should not Appear on the Registry:**

550 Main Street	Royal Guard Fence
717-765 Main Street	E-Z-EM
776-790 Summa Avenue	NYCE Liberty Tempest
69 Sylvester Street	T. Sarro Salvage
750 Main Street	Tops Appliance City
1099 Old Country Road	Tops Appliance City
1226 Old Country Road	Westbury Toyota
110 Hopper Street	Express Steel
111-117 Swalm Street	Harco Trucking - Harmon Associates

The Task 4 PSA investigation resulted in three properties recommended for listing as Class 2 sites, confirmation of one property as a Class 2 site, one property recommended as a Class 4 site, the determination that nine properties should not appear on the registry, and the determination that five properties should remain as potential registry sites. A designation as a potential registry site was retained for these five properties after discussions with NYSDEC. The groundwater at these five properties exhibit significant contamination. However, it appears that the contamination is from an identified Class 2 site upgradient of the properties. Once the

5.3.3 NYSDEC Remedial Investigation at 68 Kinkel Street

The sampling results from the NYSDEC remedial investigation at 68 Kinkel Street site investigation include sample data for soils and groundwater. This investigation was conducted under NYSDEC supervision in 1996. A detailed discussion of the investigation and results can be found in the remedial investigation report (ABB 1996). Results relevant to the multisite PSA area plotted on the plume maps in Chapter 6 showing individual point locations and measured PCE- and TCA-related contaminants. This data set was also used as primary data to determine the status of the remaining potential registry sites.

5.3.4 Task 4 Multisite PSA Groundwater Probe Resuits

The results of the mobile laboratory VOC analyses performed on the groundwater probe samples collected by LMS during Task 4 of the multisite PSA are found on Tables 5-1, 5-2, and 5-3. The data are segregated into three depth ranges: samples from the water table to 65 ft below ground surface (Table 5-1), 65 to 85 ft below ground surface (Table 5-2), and 85 ft or greater (Table 5-3). The results are plotted on plume maps in Chapter 6 showing individual point locations and measured PCE- and TCA-related contaminants mapped for each depth range. The PCE-related contaminants are the sum of the individual measured concentrations of PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and 1,1,1-DCE, and vinyl chloride. The TCA-related contaminants mapped in Chapter 6 are the sum of the individual measured concentrations of 1,1,1-TCA 1,1-DCA, and 1-2 DCA.

5.3.4.1 ***Hopper/Main Street Site***. Within the Hopper/Main Street PSA area a total of 13 groundwater probes were installed. The highest concentration of PCE-related contaminants were found at the greatest depth sampled (greater than 85 ft); however, very high concentrations were also found at 65 to 85 ft north of Main Street. The highest concentrations of PCE-related contaminants were found at point GP-167 (85 ft +) located south of 95 Hopper Street. At GP-167 PCE-related contaminants were found at 3820 ppb (820 ppb TCE, 3000 ppb PCE). North of Main Street in the Swalm Avenue site concentrations of PCE-related contaminants in excess of 1000 ppb were found at shallow depth (water table to 65 ft). Low concentrations (less than 20 ppb) of TCA-related contaminants were also found in the Garden/Hopper Street area.

5.3.4.2 ***E-Z-EM Site***. Within the E-Z-EM PSA area a total of seven groundwater probes were taken during the Task 4 PSA field investigation. Low concentrations of TCA-related contaminants were found in all the points completed in this area with the exception of GP-204, which had results of "not detected" (ND) at all three depth ranges. No PCE-related contaminants above 100 ppb were detected in the points completed at the E-Z-EM site. The

5.4.4 Task 4 Multisite PSA Soil Probe Results

The results of the soil probes installed during Task 4 of the multisite PSA are summarized in Table 5-4. In general, the contaminant levels in the soils are much lower than the groundwater. It is believed that many of the VOCs have migrated away or were lost during sampling due to the sandy, porous nature of many of the soil samples.

5.4.4.1 ***Hopper/Main Street Site.*** A single soil probe was conducted in this PSA area; the results of this probe (SGP-238) showed xylene at low concentrations in the a 10- to 11-ft sample.

5.4.4.2 ***E-Z-EM Site.*** A total of eight soil probes with multiple sampling depths were collected at this PSA area. Soil probe sample concentrations were all ND; no target compounds were found in the soils at this PSA area.

5.4.4.3 ***Tops Appliance City Site.*** Two soil probes (SGP-227 and SGP-254) were completed in this PSA area. Low concentrations of toluene were detected in a sample from SGP-227 (4-5 ft). The remaining sample depths from the two probes did not indicate the presence of target compounds above the detection limit.

5.4.4.4 ***Swalm Avenue Site.*** A total of four soil probe locations were completed in the Swalm Avenue PSA area, all at 118-138 Swalm Avenue. Target compounds were detected in three of the four points completed. Concentrations range from ND in SGP-200 (11-12 ft and 14-15 ft) to 0.570 ppb PCE at SGP-198 (18-19 ft). TCE, toluene, and methylene chloride were also detected at low concentrations in several of the soil probe samples.

5.4.4.5 ***Sylvester Street Site.*** A total of seven soil probe locations were completed in the Slyvester Street site PSA area, all at or near 29 New York Avenue. Target compounds were detected in two of the seven probe locations. Concentrations ranged from ND in SGP-221, SGP-222, SGP-245, SGP-249, and SGP-246 to 245 mg/kg of TCA-related contaminants in SGP-247 (8-10 ft). In addition to the VOC analysis, SVOC analysis was conducted by a base laboratory on SGP-247. The results showed 4-methylphenol and bis(2-ethylnexyl)phthalate at concentrations below the quantitation limit (Table 5-5). Vitamin E was also noted in this sample at high concentrations. The anaytical data provided by the laboratory for this sample are found in Appendix C.

CHAPTER 6

CONCLUSIONS

This chapter presents the conclusions of the Task 4 multisite PSA investigation. The data collected at each of the remaining potential registry sites, the impacted or plume areas, a discussion of each facility, and a determination of whether each facility has discharged a hazardous waste and caused a significant environmental impact are presented. The chapter is divided according to the remaining PSA site areas. For each site the groundwater plume and soil data compiled from all the data sources are presented. The plume maps show individual point locations and measured PCE- and TCA-related contaminants for each depth range. The PCE-related contaminants are the sum of the individual measured concentrations of PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, and VC. The TCA-related contaminants are the sum of the individual measured concentrations of 1,1,1-TCA, 1,1-DCA, and 1,2-DCA. Each data set is distinguished by a different font on the figure. If a sample point on a map does not have a reported contaminant value next to it, either no sample was collected at that particular depth or a sample was collected but the contaminant being plotted was not analyzed in the sample.

According to Title 13, Article 27, of the State Environmental Conservation Law, the New York State Registry of Inactive Hazardous Waste Disposal Sites must include all known hazardous waste sites. To be included on the registry, it must be confirmed that hazardous wastes were disposed of on the site or are present on the site. Sites with confirmed hazardous wastes are then classified according to the effects of that contamination on the environment or human health. Classification 2 is for sites for which there is information sufficient to determine that they pose a significant threat to the public health or environment. Classification 2a is for sites with insufficient information to make a significant threat determination. Classification 3 is for sites that do not pose a significant threat. Sites without documentation of hazardous waste disposal are not included on the registry; however, they may be investigated further if it is suspected that hazardous wastes were disposed of at the site.

Past studies and this investigation at the NCIA site documented that the site poses a significant impact to the environment or is a public health concern; measured contaminant concentrations in an aquifer connected to a water supply aquifer are orders of magnitude higher than drinking water standards. The facility discussions correlate the relationship of hazardous waste usage or disposal at the facility with the measured contaminant plume. Documentation of hazardous waste disposal related to the contaminant plume at these sites considered the following factors:

- Suspected sites were identified by existing or past site use, file data, or location within a highly contaminated plume area.

- Through additional file or report research or information obtained during site inspections and/or site sampling, documentation of chemical usage and source data were obtained. "Chemical usage" documents the chemical and amounts used currently or (more importantly) in the past at the sites. Past usage is particularly important because prior to the late 1970s and 1980s the entire NCIA used septic systems for waste disposal. "Source data" refers to sampling data that indicate the presence of contaminant chemicals on-site, usually in old seepage pits.

- The monitoring well and Geoprobe data were analyzed for each site to determine upgradient and downgradient contaminant concentrations. In general, if the downgradient concentrations were three times the upgradient concentrations of the same contaminant, then it would appear that the site was responsible for a release of that contaminant.

- Hazardous waste disposal documentation considered chemical usage or source data, particularly if chemical usage correlated with the plume data, i.e., consisted of the same or related chemicals.

6.1 HOPPER/MAIN STREET SITE

6.1.1 Groundwater Plume

The PCE-related contaminant-impacted area of the Hopper/Main Street PSA site is laterally and vertically extensive (Figures 6-1, 6-2, and 6-3), appearing to extend from the water table to depths greater than 85 ft below grade. PCE is the primary PCE-related contaminant; high levels of TCE and DCE were found, as well as trace to moderate levels of VC. The plume appears to extend from the northern end of Swalm Avenue downgradient to just south of 75 Garden Street. The relative size of the impacted area appears to be constant with depths up to 85 ft below ground surface.

The TCA-related contaminant-impacted area of the Hopper/Main Street Site is negligible compared to that of the PCE-impacted area (Figures 6-4, 6-5, and 6-6). The primary contaminant is almost exclusively 1,1,1-TCA, which was found at very low concentrations in two locations (GP-228 and GP-229). None of the points samples exceeded 100 ppb TCA-related compounds with the exception of GP-167 at the deepest depth, which contained 240 ppb TCA-related compounds.

6.1.2 Soil Contamination

Soil sampling at the Hopper/Main Street site was performed at one point in 1996 (SGP-238, see Figure 6-7). A total of 15 points have been installed and sampled in this area since 1993. Samples were collected from two discrete depth intervals at each point. No PCE- or TCE-

299 Main Street (Block 144, Lots 37 to 44)

299 Main Street, occupied by One Stop Auto and Truck Center, was developed some time between 1950 and 1962 and consists of a garage with a number of bays and office space. To the north of the building is a large fenced storage yard. The property was formerly used as a junkyard and a transportation company. Island Transport Corporation used large quantities of BTEX-related compounds and approximately 275 gal of TCE from July to December 1978 (LMS 1996) to wash trucks.

The probes completed during the site investigation indicated that in upgradient areas PCE-related contaminants were not detected above 100 ppb (GP-85). At a downgradient position, PCE-related contaminants were found at 680 ppb in the intermediate depth sample (GP-22). Soil samples collected at SGP-86 and SGP-88 did not show any target compounds. A soil sample collected at GP-22 contained both PCE- and TCA-related compounds in a 49-51 ft sample (Figure 6-7); however, since the soil sample was taken very close to the watertable it is not known whether the contamination is truly indicative of the levels of soil contamination. PCE-related contaminants were found at 1.73 mg/kg and TCA-related contaminants at 0.092 mg/kg. In addition, total BTEX-related contaminants were found at 85.63 mg/kg in this soil sample. These levels would tend to indicate an on-site source.

Although this site has a documented use of target compounds (TCE), an on-site source and an environmental impact was not fully documented during the previous phase of the PSA. To document an environmental impact three additional upgradient and two additional downgradient probes were completed (Figure 6-1, Figure 6-2, Figure 6-3, Figure 6-4, Figure 6-5, and Figure 6-6). The results of these probes clearly indicate that this property is contributing to the groundwater contamination in the Garden/Hopper Street area. The three upgradient probes (GP-231, 223, and 253) do not show any target compounds above 100 ppb. The downgradient points GP-193, GP-194, and GP-195 clearly show elevated PCE-related contaminant concentrations at the three depth ranges (Figure 6-1, Figure 6-2, and Figure 6-3). In GP-194 (water table to 65 ft) the PCE-related contaminants total 2190 ppb (1700 ppb cis-1,2-DCE and 490 ppb TCE) (Figure 6-1). It was also noted that the individual contaminants change and become more numerous just downgradient of this property. Upgradient of the site the only contaminant noted in the groundwater is PCE, while downgradient TCE, DCE, and VC are found along with the PCE (Figure 6-6a). In GP-195 the total PCE-related contaminants are 700 ppb at the shallow depth; of this 700 ppb total, 250 ppb is cis-1,2-DCE and 450 VC (Figure 6-6a). The source of these different contaminants is likely located on this property or possibly the property just to the east, while the PCE-related contaminants at depth are from an upgradient source. Based on a documented history of chemical usage, a documented on-site

related compounds were detected in the samples collected. Benzene, toluene, ethylbenzene, and xylene (BTEX) compounds were detected in the sample from 10-11 ft but were not detected from 17-19 ft. Total xylenes were detected at a concentration of 0.028 mg/kg at 10-11 ft.

6.1.3 Facility Discussion

95 Hopper Street (Block 71, Lot 5 to 8)

95 Hopper Street was previously occupied by Bilt Rite Steel Buck Corporation. Apparently Bilt Rite Steel Buck abandoned the property in late 1995 or early 1996; occupants prior to Bilt Rite were not found in the detailed file review. Bilt Rite had documented use of many chemicals at this site: naphtha, toluene, xylol chromate, lead, xylene, ethylbenzene, polyester resin, and metals. According to NCDOH records, an authorized waste hauler removed F003 waste (spent nonhalogenated solvent inclusive of but not limited to xylene, ethylbenzene, and methanol) from this address. Groundwater samples were taken immediately downgradient of this facility (GP-165, GP-167, GP-171, GP-182, and GP-238). Many of these groundwater samples contained high concentrations of PCE-related compounds, averaging greater than 200 ppb (Figure 6-1, Figure 6-2, and Figure 6-3). This property is within the PCE-related contaminant plume; elevated concentrations of TCA-related compounds were not found (Figure 6-4, Figure 6-5, Figure 6-6). The upgradient samples available during the last phase of the PSA investigation were limited. During Task 4 additional upgradient probe locations were completed; these probes indicate that Bilt Rite Steel Buck does not appear to be the source of the groundwater contamination found in the area. A comparison of the upgradient and downgradient sampling locations does not clearly show that the property exhibits contaminant concentrations three times greater in the downgradient position than in the upgradient position (Figure 6-1, Figure 6-2, and Figure 6-3). At the shallow depth the only upgradient/downgradient pair that shows contamination three times greater in the downgradient position is GP-192/GP-238. In GP-192 the total PCE-related compounds are 387 ppb (cis-DCE 210 ppb; TCE 110 ppb; and PCE 67 ppb) (Figure 6-1). In GP-238 the total PCE-related compounds totaled 1330 ppb (cis-DCE 1000; TCE 330) (Figure 6-1). It is possible the site is responsible for the cis-DCE, but it appears unlikely based on no documented usage of this type of compound and the presence of similarly elevated cis-DCE concentrations in other upgradient points (GP-194). The elevated concentrations of PCE-related compounds in the deeper depths would appear to also be attributable to a source upgradient of this property.

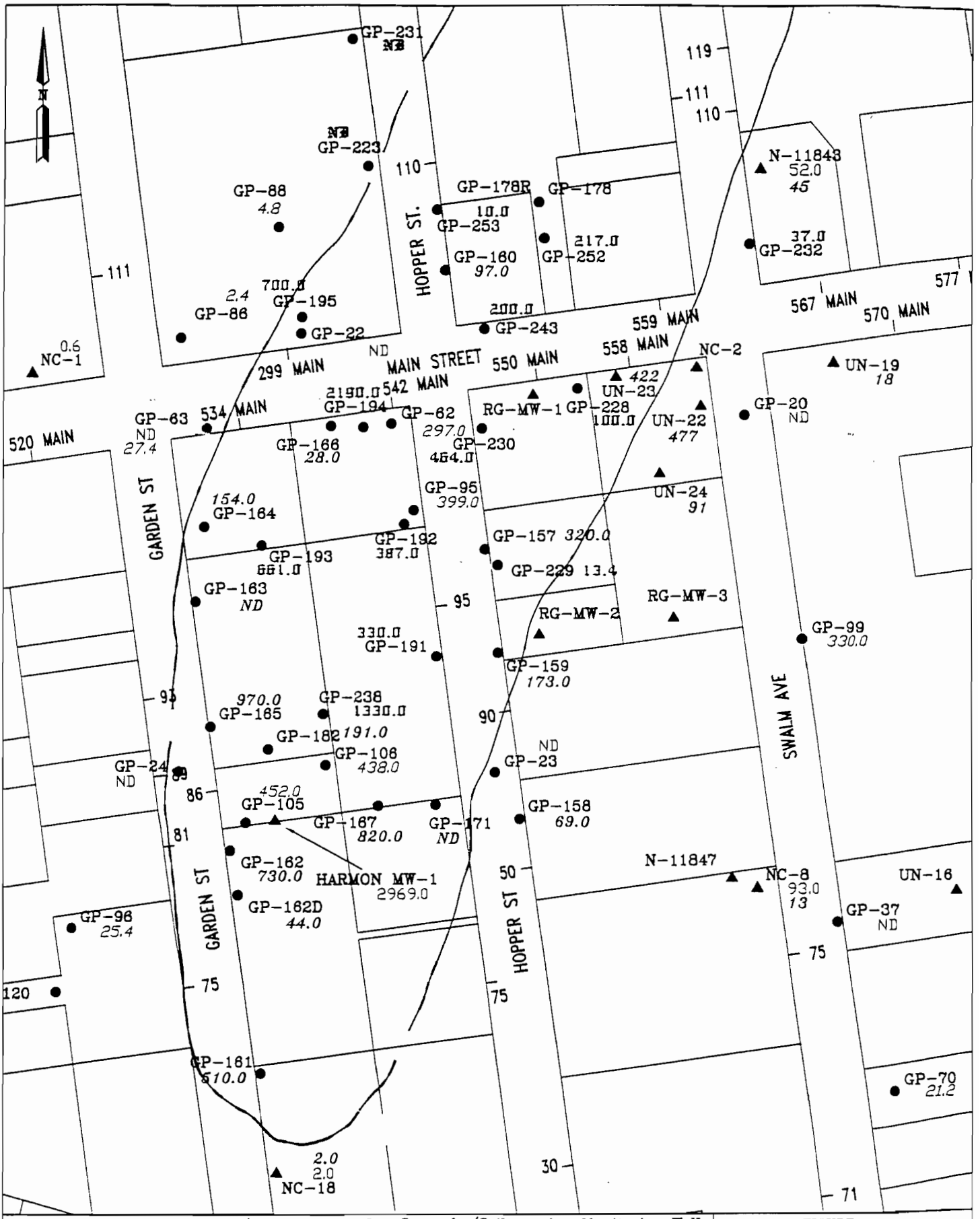
The downgradient samples in the three depth ranges do not clearly show concentrations of target compounds that are three times the concentration of the upgradient samples. In addition no on-site source or documented use of chlorinated solvents was found for this property. However,

source, and a demonstrated environmental impact to groundwater, this property should be included on the registry.

Lot at the Northeast Corner of Hopper and Main Street (Block 145, Lots 38, 39, and 40)

This vacant lot was used as a junkyard; there are no permanent structures on the lot. Past uses of this property are unknown; this is a small lot and it appears unlikely that it has been used as anything other than a junkyard. The groundwater below this property has been impacted by PCE-related contaminants at all three depth ranges (Figure 6-1, Figure 6-2, and Figure 6-3); TCA-related contaminants were not detected at this property (Figure 6-4, Figure 6-5, and Figure 6-6). The PCE found at the intermediate depth at the two upgradient probe locations (GP-178R and GP-252) (Figure 6-2) is likely from the 118-138 Swalm Street site. The downgradient points on this property show a trend similar to that of those points downgradient of 299 Main Street. At this property individual contaminants change and become more numerous just downgradient of this property. Upgradient of the property the only contaminant noted in the groundwater is PCE, while downgradient TCE and DCE are found along with the PCE (Figure 6-6a). In GP-230, a downgradient point, the total PCE-related contaminants are 464 ppb at the shallow depth; of the 464 ppb total, 260 ppb is cis-1,2-DEC and 170 ppb TCE. The source of these different contaminants is likely on this property or the property just to the west. In addition to the PCE from the upgradient source, additional contaminants are found, including cis-1,2-DCE and TCE at a shallow depth (Figure 6-6a). In GP-194 at the shallow depth, total PCE-related contaminants are 2190 ppb (1700 ppb cis-1,2-DCE and 490 ppb TCE). This property or the property to the west is the apparent source for this contamination.

Documented on-site usage of target compounds could not be verified but is likely based on past site uses (junkyard). Just downgradient of this property the contaminant concentrations in the groundwater increase and the number of individual contaminants also increases immediately downgradient. Based on the size of the property and the number of samples taken around this property, it is a likely source of the noted groundwater contamination. The presence of an on-site source could not be verified because access to the property was denied by the current owner. This property should appear on the registry of inactive hazardous waste sites to allow remedial investigations to locate any possible on-site source areas.



NOTE: All data in ug/l.

Scale in Feet

140 0 140

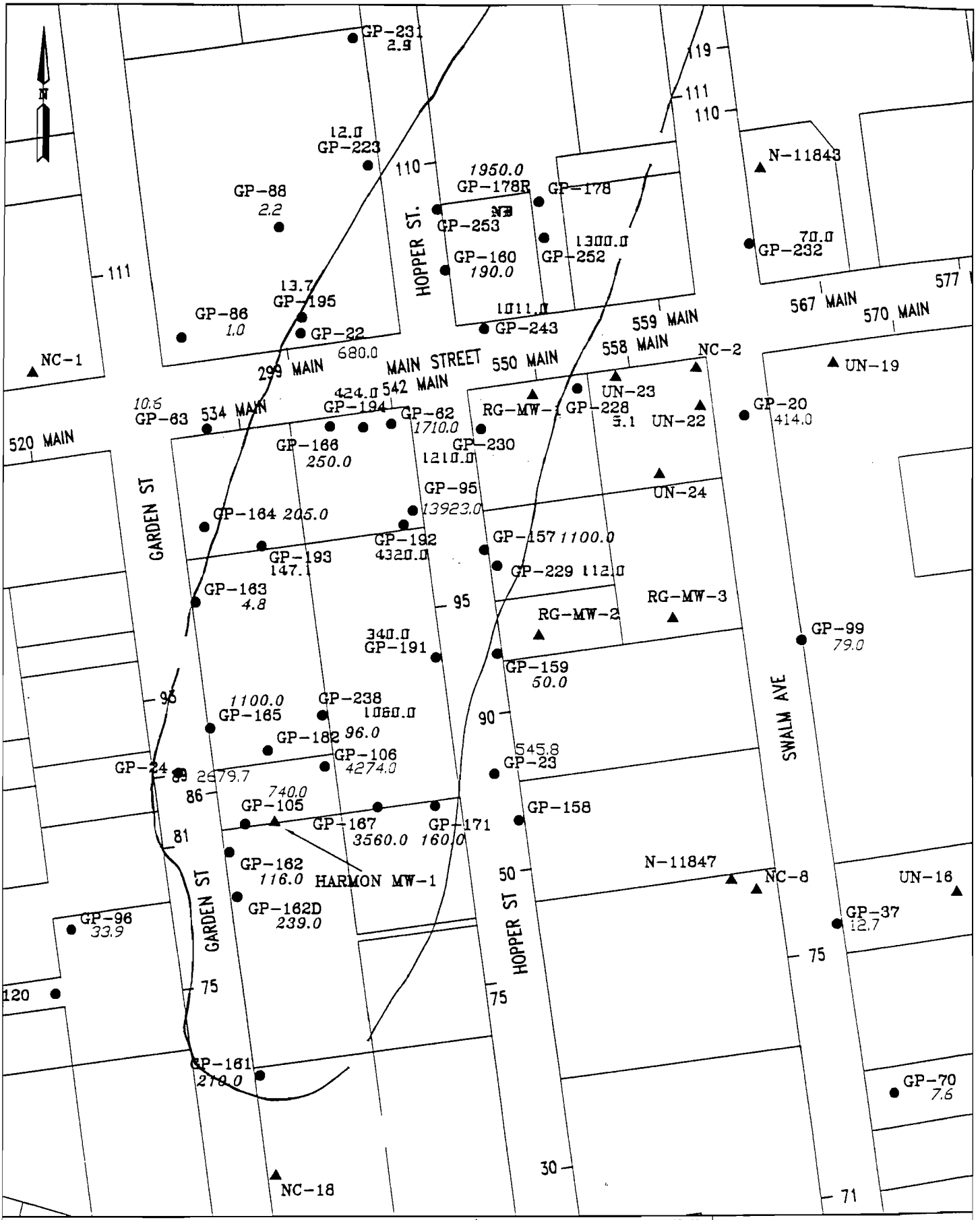
● - Geoprobe/Soil Sample Location

▲ - Monitoring Well Sample Location

120 1993 Sample Data
120 1994 Sample Data
120 1995 Sample Data
120 1996 Sample Data

Lawler, Matusky & Skelly Engineers, LLP

FIGURE 6.1
HOPPER/MAIN ST SITE
542, 550, AND 299 MAIN ST, AND 95 HOPPER ST
PCE IN GROUNDWATER
WATER TABLE TO 65 FT



NOTE: All data in ug/l.

Scale in Feet

140 0 140

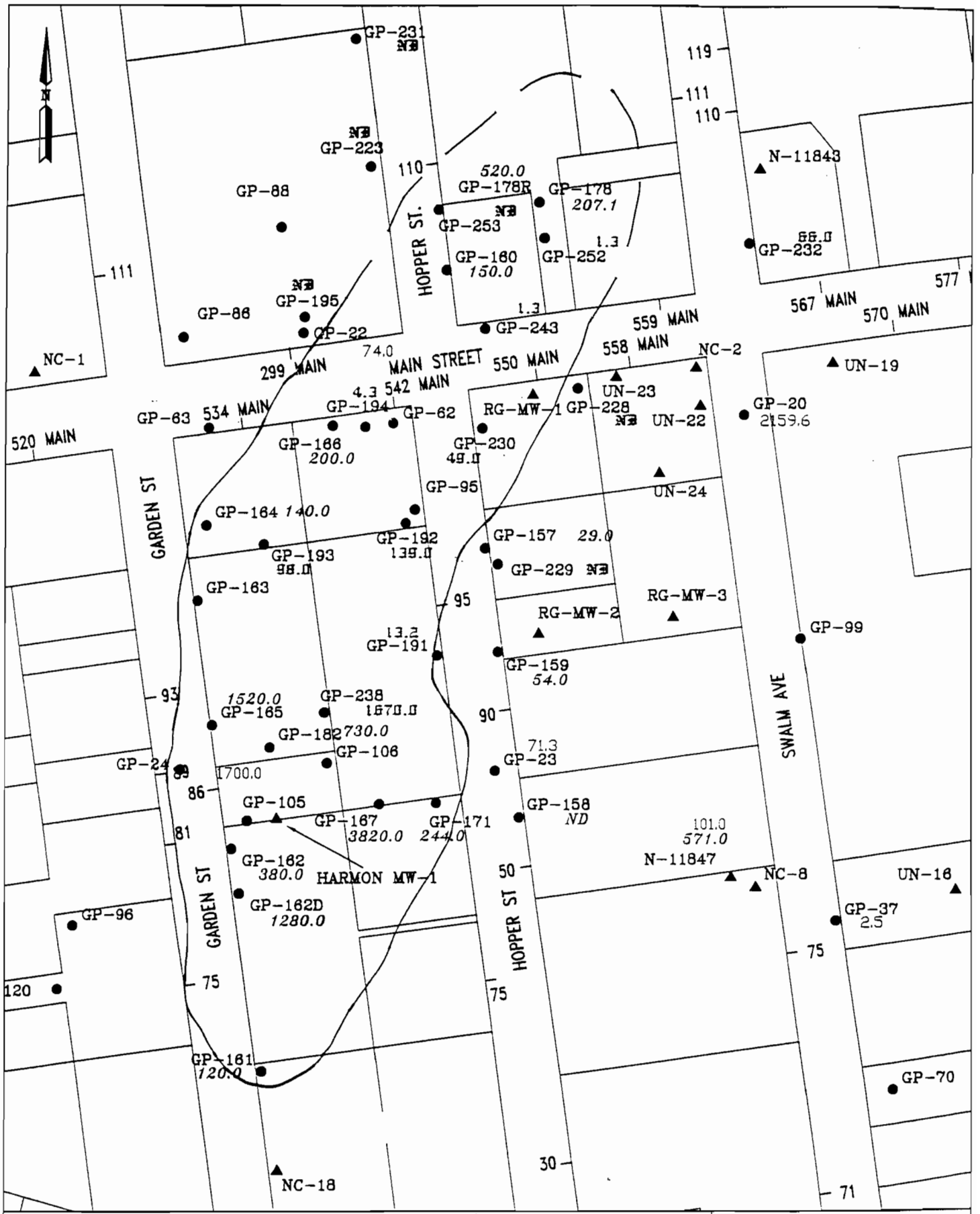
● - Geoprobe/Soil Sample Location

▲ - Monitoring Well Sample Location

120 1993 Sample Data
120 1994 Sample Data
120 1995 Sample Data
120 1996 Sample Data

Lawler, Matusky & Skelly Engineers, LLP

FIGURE 6.2
HOPPER/MAIN ST SITE
542, 550, AND 299 MAIN ST, AND 95 HOPPER ST
PCE IN GROUNDWATER
65 TO 85 FT



NOTE: All data in ug/l.

Scale in Feet

140 0 140

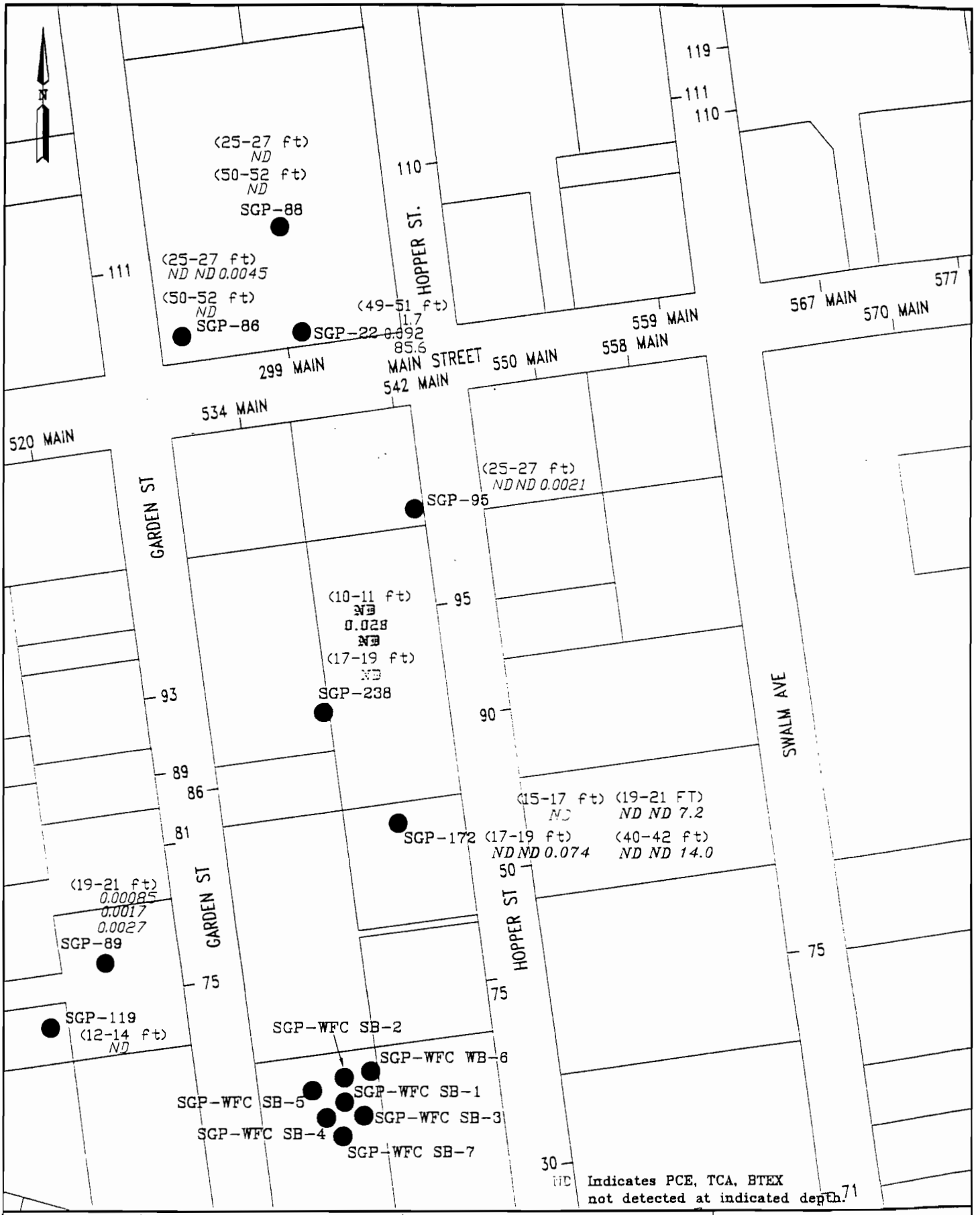
● - Geoprobe/Soil Sample Location

▲ - Monitoring Well Sample Location

120 1993 Sample Data
120 1994 Sample Data
120 1995 Sample Data
120 1996 Sample Data

Lawler, Matusky & Skelly Engineers, LLP

FIGURE 6.3
HOPPER/MAIN ST SITE
542, 550, AND 299 MAIN ST, AND 95 HOPPER ST
PCE IN GROUNDWATER
85 FT +



● - Geoprobe/Soil Sample Location

NOTE: All data in mg/kg.

Scale in Feet
140 0 140

Lawler, Matusky & Skelly Engineers, LLP

PCE	TCA	BTEX	
120	120	120	1993 Sample Data
120	*120*	*120*	1994 Sample Data
120	*120*	*120*	1995 Sample Data
120	120	120	1996 Sample Data

FIGURE 6.7

HOPPER/MAIN ST SITE
542, 550, AND 299 MAIN ST, AND 95 HOPPER ST
SUBSURFACE SOILS DATA

CHAPTER 7

RECOMMENDATIONS

Based on the conclusions of Task 4 of the multisite PSA investigation, presented in Chapter 6, LMS recommends the following classification of facilities within the remaining potential registry sites and data review sites in the NCIA.

7.1 HOPPER/MAIN STREET SITE

95 Hopper Street - Bilt-Rite Steel Buck

- Documented usage of hazardous waste
- No source
- Groundwater plume documented as emerging from site
- Recommendation - this property should remain a potential registry site until an upgradient source for the on-site groundwater contamination is determined.

542 Main Street - Als Tool and Die

- No documented usage
- No source
- In general, upgradient groundwater concentration greater than downgradient, but one sample had high concentration (13,900 ppb) over cesspool area.
- Recommendation - this property should remain a potential registry site until an upgradient source for the on-site groundwater contamination is determined.

550 Main Street - Royal Guard Fence

- Documented usage of degreasers
- No source
- Groundwater plume documented as emerging from site
- Recommendation - this property should not appear on the registry of hazardous waste sites.

299 Main Street - One Stop Auto and Truck Center

- Documented usage of hazardous waste
- Target compounds detected in soils from 49-51 ft
- Groundwater plume was documented as emerging from site
- Recommendation - this property should be listed on the registry of hazardous waste sites.

2.2.2 542 Main Street

This building has been occupied by Al's Tool and Die, Inc., a metal parts fabricator, since approximately 1968. No prior ownership is known. There is no documentation of any chemical usage at this site, other than an annual usage of 5 gallons of water soluble cutting oil. Metal shavings generated were taken to a scrap dealer.

2.2.3 550 Main Street

Owned by Royal Guard Fence Company since the 1950's, this site contains three underground fuel storage tanks and an aboveground waste oil storage tank. Two 2,500 gallon underground fuel tanks were installed in 1994 and a 4,000 gallon underground tank was installed in 1978. The 4,000 gallon underground gas tank failed a Petrotite systems test in 1989. It was cited in 1991 by the NC Fire Inspector for being out of service without removal or abandonment. NYSDEC spills records indicate that fuel spills from tanks of unspecified amounts occurred in 1989, 1993, and 1996. The spill in 1989 was due to a crack in the tank fill pipe and entered the groundwater.

There are three dry wells located in the pavement and one interior floor drain documented at this address. Sewer hookup was made in 1983. Prior to that, sewage was discharged to an on-site septic system (1954-1983). Chemical usage at this site is limited to minimal amounts of cutting oil, muriatic acid, and paint thinners (EEA 1992). Scrap metal is removed from the site.

2.2.4 299 Main Street

The western portion of the existing building at 299 Main Street was erected between 1950 and 1962 with the eastern portion added between 1962 and 1970. Since April 1994, One Stop Auto and Truck Center occupied this address. Island Transportation Corporation (ITC), a trucking company, occupied the property from at least 1963 until 1983. During its operations, it generated 400 to 500 gal/month of waste lube oil and used 40 gal/month of safety solvent #5. The liquid and solid waste was removed by authorized waste haulers, and the wash room waste was collected in two on-site cesspools. Additionally, Sam Ton Salvage, a junkyard, used this address from before 1970 until 1993. The company apparently occupied the rest of the Block 144 but used 299 Main Street as its address. In 1993, Sam Ton Salvage moved to 96 Urban Avenue.

In January 1963, two 4,000 gallon underground diesel fuel tanks were installed by ITC (NCFC 1980b). One 4,000 gallon underground gasoline tank was installed by ITC in 1966 and one 10,000 gallon underground diesel tank was installed in 1972. ITC used Trichloroethylene (TCE) to wash asphalt residues from its tank trailers prior to 1980. Approximately 275 gallons were used during a period from July to December 1978 (NCDOH 1979a). The TCE was reclaimed on-site and reused. ITC replaced the TCE with Dubois Chemical Spra-Jel (NCDOH 1979b). The chemical constituents of Spra-Jel are as follows:

Petroleum solvent, kerosene cut

Appendix A.2

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ➤ •NYD020576898

ISLAND TRANSPORTATION CORP
299 MAIN STREET
WESTBURY NY 11590

INSTALLATION ADDRESS ➤ 299 MAIN STREET
WESTBURY NY 11590

EPA Form 8700-12B (4-80)

11/07/80

Please print or type with ELITE type *(12 characters/inch)* in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

EPA U.S. ENVIRONMENTAL PROTECTION AGENCY
NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

INSTALLATION'S EPA I.D. NO.	NYD020576898
I. NAME OF INSTALLATION	ISLAND TRANSPORTATION CORP
II. INSTALLATION MAILING ADDRESS	~~[illegible]~~ 299 Main St Westbury N.Y. 11590
III. LOCATION OF INSTALLATION	~~[illegible]~~ 299 Main St Westbury NY 11590

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (yr., mo., & day)
F NY 0 0 2 0 5 7 6 8 9 8 T/A 3 C 1		8 0 0 7 3 0

I. NAME OF INSTALLATION

ISLAND TRANSPORTATION CORP

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3 299 MAIN STREET

CITY OR TOWN	ST.	ZIP CODE
4 WESTBURY	NY	11590

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5 ~~SAME~~ 299 MAIN STREET

CITY OR TOWN	ST.	ZIP CODE
6 ~~SAME~~ WESTBURY	NY	11590

IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*	PHONE NO. *(area code & no.)*
2 SELDES HOWARD SAFETY DIRECTOR	516-334-5400

V. OWNERSHIP

DETACH

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 PETER FIORETTI SR

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*: M

F = FEDERAL
M = NON-FEDERAL

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [ ] A. GENERATION
- [X] B. TRANSPORTATION *(complete Item VII)*
- [ ] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [X] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.:

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

CONTINUE ON REVERSE

"IF IT FLOWS WE HAUL"

ISLAND TRANSPORTATION CORP.

Petroleum and Petroleum Products

299 EDISON AVENUE • WEST BABYLON, N. Y. 11704

MC ICC #116849
D.O.T.N.Y.MT-7249
P.U.C.-CONN. C-363

Office:	W. Babylon Term.:	Greenpoint Term.:	New Jersey Term.:	Conn. Term.:
(516) 694-4800	(516) 694-4497	(212) 383-3221	(201) 541-8091	(203) 239-4494

Special Data

May 5, 1983

NYD020576898

Dr. Dick Baker,
Permits Administration Branch
U.S. Environmental Protection Agency
Region 11, 26 Federal Plaza
New York, New York 10278

Gentlemen:

Island Transportation Corp. wrote to the NYS-DEC on February 16, 1983, explaning that it appeared unnecessary to fill out the facility annual hazardous waste report, and that we had moved to a new location. Since that time, Jere Austin of the NYS-DEC, Stony Brook office, made an inspection of our operation on April 13, 1983 and recommended that I write to your office to explain that our hold to haul hazardous waste permit might be used sometime in the future and should not be cancelled.

Please advise me as to the status of our present permit, #30-H-56. Our E.P.A. I.D. Number is NY D020576H9A, and our previous permit to store and remove under N.Y.S. Pollutat Discharge Elimination System was #NY-0140155.

Very truly yours,
Island Transportation Corp.

Timothy E. Cropper

Timothy E. Cropper
Vice President

TC:imc
enc.

"IF IT FLOWS WE HAUL"

ISLAND TRANSPORTATION CORP.

Petroleum and Petroleum Products

299 EDISON AVENUE • WEST BABYLON, N. Y. 11704

MC ICC #116948
D.O.T.N.Y.MT-7248
P.U.C.-CONN. C-383

Office:	W. Babylon Term.:	Greenpoint Term.:	New Jersey Term.:	Conn. Term.:
(516) 694-4800	(516) 694-4497	(212) 383-3221	(201) 541-8091	(203) 239-4494

February 16, 1983

NYS-DEC
TSD Annual Report
P. O. Box 15628
Albany, New York 12212

Gentlemen:

Island Transportation Corp. has moved from 299 Main Street, Westbury, N.Y. to 299 Edison Avenue, West Babylon, New York. Enclosed please find our previous permit and EPA I.D. number. In conversation with your Albany office, it appears that it is unnecessary for us to fill out the facility annual hazardous waste report, if this is so, would you remove us from your reporting requirement. Our operation is explained under comments on form OMB #2050-005.

Thank you.

Very truly yours,
Island Transportation Corp.

Timothy Cropper
Vice President of
Maintenance

TC:imc
enc.

Do not make entries in shaded areas

OMB #: 2050-0005 Expires: 7-31-83

ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT

This report is for the calendar year ending December 31, 1982 ANNUAL REPORT

AFFIX LABEL HERE

Please print/type with elite type (12 characters per inch)

GENERAL INSTRUCTIONS: If you received a preprinted label attached to the mailing envelope in which this form was enclosed, affix it in the space provided. If any of the information on the label is incorrect, draw a line through it and provide the correct information in the appropriate section below. If the information is correct and complete, leave Sections I, II, and III below blank. If you did not receive a preprinted label, complete all sections. REFER TO THE SPECIFIC INSTRUCTIONS CONTAINED IN THIS BOOKLET BEFORE COMPLETING THIS FORM. The information requested in this report is required by law (Section 3004 of the Resource Conservation Recovery Act).

MAIL TO:
NYS-DEC
TSD Annual Report
P.O. Box 15628
Albany, New York 12212

I. FACILITY EPA I.D. NUMBER

T/A C
F 1
1 2 13 14 15

II. NAME OF FACILITY

1 ISLAND TRANSPORTATION CORP
30 69

III. FACILITY MAILING ADDRESS

2 3299 EDISON AVENUE
15 16 45
Street or P.O. Box

3 WEST BABYLON NY 11704
15 16 41 42 47 51
City or Town State Zip Code

MAY 10 12 53 PM '83
ENVIRONMENTAL PROTECTION AGENCY
NEW YORK, N.Y. 10007
PERMITS ADMIN. BRANCH
REGION II

IV. LOCATION OF FACILITY (if different than section III above)

5 1220 WELLWOOD AVENUE
15 16 45
Street or Route number

6 WEST BABYLON NY 11704
15 16 41 42 47 51
City or Town State Zip Code

V. FACILITY CONTACT

2 CROPPER TIMOTHY
15 16 45
Name (last and first)

5161-694-4800
46 55
Phone No. (area code & no.)

VI. COST ESTIMATES FOR FACILITIES

$ 16 , 19 , 22
Cost Estimate for Facility Closure

$ 25 , 28 , 31
Cost Estimate for Post Closure Monitoring and Maintenance (disposal facilities only)

VII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Timothy Cropper, V.P.Maintenance

Print/Type Name | Title | Signature of Authorized Representative | Date Signed

EPA Form 8700-13B/5-80 (Revised 10-82)

Tear out here

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ➤ NYD020576898

ISLAND TRANSPORTATION CORP
299 MAIN STREET
WESTBURY NY 11590

INSTALLATION ADDRESS ➤ 299 MAIN STREET
WESTBURY NY 11590

EPA Form 8700-12A (4-80)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Cato request
OSPM from a 3007

15 JUN 1983

Mr. Timothy E. Cropper
Vice President
Island Tranportation Corp.
299 Edison Avenue
West Babylon, New York 11704

Subject: Your letter of May 5, 1983
EPA ID No.: NYD020576898

Dear Mr. Cropper:

23

Your letter of May 5, 1983 indicates that your organization moved to a new location and that your EPA ID Number is NYD020576lH9A. This letter is to require from you a new Notification of Hazardous Waste Activity form for your new location.

K
*ID11/5
6/21/83

Your original number, which your letter incorrectly referenced, was assigned only to your old location; it is not tranferrable. Enclosed you will find a blank notification form. Please complete and sign the form within 14 days of your receipt of this letter. In addition, if you do know who will be moving into your old location, it would be appreciated if you also notify us of this either in writing or by phone.

Tom Taccone of my staff at (212) 264-9880 will answer any questions you may have on this matter.

Sincerely yours,

Richard A. Baker
Chief
Permits Administration Branch
Office of Policy & Management

Enclosure

	2PM:PA:Taccone:JA:6/13/83			CONCURRENCES				
SYMBOL	2PM:PA	2PM:PA	2PM:PA					
SURNAME	Taccone	Zambratto	Baker					
DATE	6/14/83	6-15-83	6/15/83					

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

"IF IT FLOWS WE HAUL"

ISLAND TRANSPORTATION CORP.

Petroleum and Petroleum Products

299 MAIN STREET • WESTBURY, N.Y. 11590

MC ICC #118646
D.O.T.N.Y.MT-7248
P.U.C.-CONN. C-383

Office: (516) 334-5400 • Westbury Term. (516) 334-5440 • Greenpoint Term. (212) 383-3221 • New Jersey Term. (201) 541-8091 • Conn. Term. (203) 239-4494

NYD020576898

~~NYD005~~

notified date 8/07/24

Eliminate ALREADY NOTIFIED

February 27, 1981

U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, NY 10278

Re: NYT000029553

Att: Mr. Julio Morales=Sanchez, Director
Enforcement Division

Gentlemen:

Please be aware that Island Transportation Corp. has filed with the E.P.A. as required by law and has already been issued E.P.A. Identification No. NYD020576898 for Hazardous Waste Activity, a copy of which is attached.

Perhaps there is an error in that your letter was addressed to me personally rather than to Island Transportation Corp.

Please contact me if further clarification of this matter is necessary.

Yours truly,

Peter Fioretti, Jr.
Vice-President

PF:ms

DGA

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ➤ NYD072057698

ISLAND TRANSPORTATION CORP
299 MAIN STREET
WESTBURY NY 11590

INSTALLATION ADDRESS ➤

299 MAIN STREET
WESTBURY NY 11590

EPA Form 8700-12A (4-80)

NOTICE**NOTICE**NOTICE

TO ENSURE ACCURATE PROCESSING, YOUR RESPONSE TO THIS LETTER MUST INCLUDE THE TWELVE DIGIT NUMBER PRINTED ON THE MAILING LABEL OF THIS LETTER.

NYT000029553

FIORETTI PETER

299 MAIN STREET
WESTBURY NY 11590

Dear Sir:

The United States Environmental Protection Agency (EPA) regulates the handling of hazardous wastes under the Resource Conservation and Recovery Act (RCRA) 42 U.S.C. §6901 et seq. Under Section 3010 of RCRA, 42 U.S.C. §6930, parties handling certain quantities of hazardous wastes (these wastes are characterized and listed in regulations which were published in the Federal Register of May 19, 1980, 45 FR 33084 et seq. and July 16, 1980, 45 FR 47832 et seq.) are required to notify EPA of their activities. Facilities handling wastes defined by the May 19, 1980 regulations were required to notify by August 18, 1980. Facilities handling wastes defined by the July 16, 1980 regulations were required to notify by October 14, 1980. We have not yet received a notification from you or your company.

Section 3007 of RCRA, 42 U.S.C. §6927, allows EPA to request certain information of parties who handle hazardous wastes. Based upon information available to this Agency, we believe that you or your company handles such hazardous wastes. Therefore, in order to determine the extent of your hazardous waste activity, and to determine whether you should have notified EPA pursuant to §3010, we require that you answer the questions posed below. Your reply should be completed and signed by a responsible official of your firm and returned to us within 21 days of the date of this letter. If you have already notified EPA of your hazardous waste activity, please respond, indicating your prior notification and listing your EPA Identification Number, if available.

Please answer the following questions:

1) Do you handle any "hazardous wastes," as this term is defined in RCRA and the regulations promulgated under RCRA (regulations published in the Federal Register on May 19, 1980; July 16, 1980; October 30, 1980; November 12, 1980; November 17, 1980 and November 25, 1980)?

2) If you do handle such wastes, what is the greatest quantity of hazardous wastes that you handle in any one month?

3) If you do handle any hazardous wastes, please identify them by type, characteristics, components, or by the process that produces these wastes.

4) How do you handle these wastes (i.e. do you generate, transport, treat, store or dispose of them)?

47-15-15(7/82)

1

RCRA INSPECTION FORM

Report Prepared for:

Generator ☑

Transporter ☑

HWM (TSD) facility ☐

Copy of report sent to the facility ☐

(4)

Location Code:
47 2000

Facility Information

Name: Island Transportation Corp

Address: 299 Edison Ave
West Babylon NY 11704

EPA ID#: NYD 020 576 898

Date of Inspection: April 13, 1983

Participating Personnel

State or EPA Personnel: Jere Austin
NYS DEC

Facility Personnel: Timothy Crapper
VP - Maint. & Equip.

Report Prepared by Name: J. Austin

Agency: NYS DEC

Telephone #: (516) 751 7900

Approved for the Director by: James K. Heil
REGIONAL SOLID WASTE ENGINEER
REGION 1 - NYSDEC

Summary of Findings

Facility Description and Operations

Facility is a trucking company. Maintenance shop generates waste lube oil approx. 400 to 500 gals / 30 days. Waste oil is removed approx. 30 day intervals

Two parts-cleaning machines are serviced by Safety-Klean Corp. which removes about 10 gal per machine every two weeks. Solvent is "Safety solvent #5"

Describe the activities that result in the generation of hazardous waste.

Two parts cleaning machines in maintenance shop using Safety-Kleen safety solvent #5. Spent solvent removed at two week intervals (approx 10 gal/machine)

Identify the hazardous waste located on site, and estimate the approximate quantities of each. (Identify Waste Codes)

Quantity and storage time. Qualifies Facility as an exempt generator

Environmental Protection Agency Internet

Internet

RCRA information is now available on the Internet. The address is http://www.epa.gov and if you have any questions, please contact the RCRA Hotline telephone number at 1-800-424-9346.

Another feature posted on the Internet by EPA HQ's is the Final National Biennial Reports with Data Files for all BRS reporting years, found at:

http://www.epa.gov/epaoswer/hazwaste/data. The Preliminary 1997 National Report is posted on the Internet and the address is:

http://www.epa.gov/epaoswer/hazwaste/data/pbr97/97pbr.htm. Also, available on the Internet is a public access on-line query engine for environmental databases found at:

http://www.rtk.net

In the near future, the public will have electronic access to RCRA facility-specific information which will also include some flat file reports. The RCRA reports will soon be available on the Freedom of Information Act (FOIA) Web Page. The FOIA Web Page will replace the Region 2 Bulletin Board System. The Bulletin Board System is out of date.

NYSDEC Spill Logs

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
8604508	10/14/86	10/30/86	MOBIL	6060 BRUSHHOLLOW ROAD	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
GASOLINE	0	Tank Test Failure	Gas Station	Groundwater
GASOLINE	0	Tank Test Failure	Gas Station	Groundwater

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
8605013	11/6/86	3/11/89	ISLAND POLYETHYLENE	75 GARDEN STREET	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
#2 FUEL OIL	0	Other	Comm/Indust	Groundwater
#2 FUEL OIL	0	Other	Comm/Indust	Groundwater

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
8605257	11/17/86	11/16/87	PETRO	522 GRAND BLVD	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
#2 FUEL OIL	0	Tank Test Failure	Gas Station	Groundwater
#2 FUEL OIL	0	Tank Test Failure	Gas Station	Groundwater

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
8606479	1/19/87	1/21/87	PERILLO BROS OIL	1058 GRAND BLVD	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
#2 FUEL OIL	5	Human Error	Tank Truck	On land
#2 FUEL OIL	5	Human Error	Tank Truck	On land

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
8701680	5/29/87	6/4/87	LILCO	GRAND BLVD & GARDEN ST	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
NON PCB OIL	1	Equipment Failure	Comm/Indust	On land

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9706313	8/25/97	8/29/97		GARDEN STREET/MAIN STREET	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
UNKNOWN MATERIAL	0	Abandoned Drum	Unknown	On land

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9706902	2/12/96		ONE STOP AUTO & TRUCK CTR	299 MAIN STREET	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
ANTIFREEZE	0	Housekeeping	Comm/Indust	On land
WASTE OIL	0	Housekeeping	Comm/Indust	On land

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9707483	9/24/97		NORTH HEMPSTEAD HOUSING	899 BROADWAY	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
#2 FUEL OIL	0	Tank Test Failure	Non-Comm/Inst	On land

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9708907	10/30/97	11/27/97	MORRIS RESIDENCE	225 GARDEN STREET	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
#2 FUEL OIL	2	Human Error	Commercial Vehicle	On land

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9710428	3/1/96			HOPPER STREET	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
UNKNOWN HAZARDOUS MATERIAL	0	Unknown	Unknown	On land

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9710721	12/19/97	1/28/98	ACME BUS	1 BRUSHHOLLOW ROAD	WESTBURY	Nassau

Material Spilled	Qty (gal)	Spill Cause	Spill Source	Resources Affected
ANTIFREEZE	0	Deliberate	Comm/Indust	On land

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9307861	9/28/93		TWN NO HEMPSTEAD HWY GARA	970 BRUSHHOLLOW ROAD	WESTBURY	Nassau
	Material Spilled	**Qty (gal)**	**Spill Cause**	**Spill Source**	**Resources Affected**	
	GASOLINE	0	Other	Non-Comm/Inst	On land	

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9308133	10/4/93		ZAMPINI RESIDENCE	702 URBAN STREET	WESTBURY	Nassau
	Material Spilled	**Qty (gal)**	**Spill Cause**	**Spill Source**	**Resources Affected**	
	#2 FUEL OIL	5	Equipment Failure	Private Dwelling	On land	

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9308228	10/6/93	5/16/97	LARIOS RESIDENCE	1124 BROADWAY	WESTBURY	Nassau
	Material Spilled	**Qty (gal)**	**Spill Cause**	**Spill Source**	**Resources Affected**	
	#2 FUEL OIL	0	Equipment Failure	Private Dwelling	On land	

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9308336	10/8/93	7/5/95	ROYAL GUARD FENCE	550 MAIN STREET	WESTBURY	Nassau
	Material Spilled	**Qty (gal)**	**Spill Cause**	**Spill Source**	**Resources Affected**	
	GASOLINE	0	Tank Test Failure	Comm/Indust	Air	

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9309079	10/26/93	10/28/93	ROYAL GUARD FENCE CO	550 MAIN STREET	WESTBURY	Nassau
	Material Spilled	**Qty (gal)**	**Spill Cause**	**Spill Source**	**Resources Affected**	
	GASOLINE	0	Tank Test Failure	Comm/Indust	Groundwater	

Spill #	Spill Date	Clean Date	Spill Name	Street Address	City	County
9309400	11/2/93		SAMTON SALVAGE	299 MAIN STREET	WESTBURY	Nassau
	Material Spilled	**Qty (gal)**	**Spill Cause**	**Spill Source**	**Resources Affected**	
	UNKNOWN PETROLEUM	0	Housekeeping	Comm/Indust	On land	

ENVIRONMENTAL
HEALTH
Continuation Sheet
Nassau County Health Department

Owner or Agent : Quality Collision

Address: 299 Main Street
Westbury

Insp

DATE | COMMENTS

10/20/98 I visited Quality Collision formerly Sam Tow Towing and Salvage. Spoke with the receptionist, the receptionist told me that repair work is done on premises. My view of the establishment was limited as the receptionist told me that she was not allowed to take me into the repair area. I will revisit at another time and try to make contact with the owner/operator.
J Mergenelli

11/30/98 I visited 299 Main St in Westbury I viewed the exterior and I found no floor drains
J Mergenelli

SDS RS RS JDF 7/30 DI — file

AUG 10 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Frank Scibelli
President
Sam-Ton Towing and Salvage
299 Main Street
Westbury, New York 11590

Re: Class V UIC Permit Application/Closure Request
Sam-Ton Towing and Salvage
299 Main Street
Westbury, New York 11590

Dear Mr. Scibelli:

The U.S. Environmental Protection Agency (EPA) administers the Underground Injection Control (UIC) program as mandated by Part C of the Safe Drinking Water Act (SDWA), 42 United States Code (USC) §300f et seq., as amended. Section 1422 of the SDWA, 42 USC §300h-1, requires EPA to administer the UIC program in states that do not have approved state programs, as is the case in New York. The regulations associated with the program are contained in 40 Code of Federal Regulations (CFR) Parts 124, 144, 145, 146, and 147.

A recent inspection of the above-referenced facility, indicates that fluids are being injected into the ground by means of wells. Under 40 CFR §144.3, the wells, two type 5X28's (see Enclosure 1, Class V well types), are considered Class V wells and subject to the requirements of the UIC program. EPA records indicate that the injection activity is unauthorized.

40 CFR §144.12(a) states that no owner or operator shall conduct any injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 142 or may otherwise adversely affect the health of persons. 40 CFR §144.12(d) states that when the director of the UIC program learns that a Class V well may cause a violation, he may take such actions as may be necessary to prevent the violation. This may include requiring the operator to obtain an individual UIC permit or closure of the well.

The hydrogeologic structure underlying the facility has high potential for allowing contamination of ground water. Consequently, the facility's Class V wells may cause a violation of primary drinking water regulations or otherwise adversely affect the health of persons. Therefore, it is necessary that action be taken to bring the wells into compliance with the SDWA. To achieve compliance, you must either obtain a permit to operate the wells or close the wells.

If you would like to continue using the wells, you must submit a permit application to EPA. The permit application must be in accordance with 40 CFR Part 144 Subpart D and the application must demonstrate that the conditions of 40 CFR §144.12(a) are satisfied. **If the application does not satisfy the requirements of 40 CFR §144.12(a) and 40 CFR Part 144 Subpart D, it will be denied and closure of the wells will be necessary.** Be advised that issuance of a federal UIC permit does not exempt the facility from State or local law and that, therefore, any injection activity may be prohibited at the State or local level, regardless of the fact that a federal UIC permit has been issued to you. Instructions for filing a federal UIC permit are enclosed.

Due to stringent injectate quality standards the cost of treatment would be substantial and it is EPA's experience that most Class V operators choose to close the wells rather than attempt to obtain a federally issued UIC permit. Therefore **EPA strongly recommends that you choose to close the wells.** Before you close the wells you must submit a closure plan to EPA and receive EPA's approval of that plan. Enclosed are instructions for UIC closure plans.

Failure to submit a closure plan or permit application **within 30 days of receipt of this letter** and continued unauthorized injection into the wells may result in an enforcement action pursuant to Section 1423 of the SDWA, 42 USC 300h-2, et seq. including, but not limited to, the imposition of a civil penalty of not more than $25,000 for each day of violation. In addition to, or in lieu of a civil penalty, willful violations may result in imprisonment for up to 3 years or a fine in accordance with Title 18 of the USC. As an alternative to civil enforcement, an Administrative Order may be issued which assesses a civil penalty of not more than $10,000 for each day of violation for any past or current violations, up to a maximum penalty of $125,000, or which requires compliance with such regulation or other requirement, or both.

If you have any questions concerning this matter, you may contact Dermott Courtney of my staff at (212) 264-6897. Please send all submissions to:

Frank C. Brock, Chief
Underground Injection Control Section
U.S. Environmental Protection Agency
26 Federal Plaza, Room 845
New York, NY 10278

Your cooperation in this matter is encouraged.

Sincerely yours,

Kevin Bricke
Acting Director
Water Management Division

Enclosures

cc: S. Silvers, Nassau County Department of Health

S+R issued 4/14/78

0140155

INDUSTRIAL CHEMICAL SURVEY
BUREAU OF WATER POLLUTION CONTROL

#00058

Nassau County Department of Health
240 Old Country Road, Mineola, N.Y. 11501 Tel. 535-2404

Part I

Company Name: Island Transportation Corp.		SIC (if known) Code: 4210	
Company Mailing Address: 299 Fulton St, Westbury			Zip: 11590
Plant Name (if different): —	Contact Name: Timothy Cropper		Tel.: 334-5400
Plant Address: —	Village: Westbury	Water Distr.:	Code / Zip
Principal Business of Plant: Trucking		No. Employees at this Facility: 375	

Part II

COMPLETE LIST OF CHEMICALS USED (See attached)

PART III - DISCHARGE INFORMATION

WATER

1. Does your plant discharge liquid wastes to a municipally owned sanitary sewer system? ☐ Yes ☑ No
   If yes, name of system: cesspool
2. Is your facility permitted to discharge liquid wastes under a State (SPDES) or Federal (NPDES) permit? ☐ Yes ☑ No
   If yes, enter Permit No. [ ][ ][ ][ ][ ][ ][ ]
3. Do you discharge liquid industrial wastes in any other manner? ☑ Yes ☐ No
   If yes, explain: detergent wash from trucks into 8-9000 gal cesspools
4. If any of the above are yes:
   a. Do you discharge process or chemical wastes, i.e., water used in manufacturing, including direct contact cooling water and scrubber water? ☐ Yes ☐ No
   b. Do you discharge non-contact cooling water? ☐ Yes ☐ No
   c. Do you discharge sanitary wastes? ☐ Yes ☐ No

AIR

1. Does your facility have sources of possible emissions to the atmosphere? ☐ Yes ☑ No
2. Enter location and facility code as shown on your Air Pollution Control Application for Permits & Certification (if applicable) [ ][ ][ ][ ][ ][ ][ ][ ][ ]
3. Heating System: ☐ None ☐ Boiler ☑ Space Heater
   Type of Fuel: ☐ Electric ☐ Gas ☑ Oil #2
   Incinerator: ☐ Yes ☑

SOLID & CONCENTRATED LIQUID WASTES

1. List name and address of firm (incl. yourself) removing wastes other than office and cafeteria refuse (industrial scavenger)

Name	Name
Address	Address

2. List location(s) of landfills owned and used by your Facility

	Active	Inactive
a.		
b.		

PEST

Does this facility manufacture, produce, formulate or repackage pesticides? ☐ Yes ☑ No

Signature (owner, partner, or officer): Tim Cropper	Date: 9-15-77
Name (printed or typed): T. CROPPER	Title: Vice-Pres.
Inspector's Name: DB RZ	Date of Inspection: 9/15/77

USTRIAL C MICAL SURVEY-BUREAU OF WATER POLLUTION
County Department of Health

Name of Company: Island Transportation | Code | Water Dist: 4 / Esther... | Code

PART II - CHEMICALS USED (include gases and oils)

INSTRUCTIONS: Complete all information for those chemicals your facility has used, stored, distributed, or otherwise disposed of since January 1, 1977. Do not include chemicals used only in analytical laboratory work.

Name of Chemical/Trade Name, Supplier and Address	Code	Avg. Annual Usage	Gal	Lbs	Use of Chemical	Final Disposition of Chemical
Trichloroethylene (drawn from 275 gal holding tank)		80	✓		Vapor degreaser cleaning inside of tankers	– evaporation + recirculation of cleaning fluids within tank truck
Methanol		5-600	✓		fuel system additive for trucks + tractors; added to service stations tanks	– evaporative loss [ea truck uses 6oz/wk]
Safety-Kleen (Mineral Spirits 99.9%)		1400	✓		parts cleaner	picked up + delivered by Safety Kleen (some evaporation)

RECOMMENDED ACTION

FOR OFFICE USE ONLY

- 2 ☐ Immediate Abatement
- 3 ☐ Sample
- 4 ☒ SPDES Application
- 5 ☐ Refer To: ______
- 6 ☐ Re-inspection
- 7 ☐ No Action
- 9 ☐ Other (specify)

NASSAU COUNTY HEALTH DEPARTMENT
PERMIT COMPLIANCE INSPECTION REPORT

Name, Address and Phone of Permittee
Island Transport
249 M. Street
Westbury, N.Y. 11590

Permit #NY0140155 Effective Date 4/14/78 Expiration Date 4/13/78

Company Representative & Title Bill Quinn - Supervisor

	Yes	No	N.A.
Permit Verification			
Name and location correct	/		
Changes:			
Purchase records in order			/
Removal of waste material records in order			/
Name & Number of scavenger & waste pick-up			/
Changes in scavenger pick-up			/
Final destination of waste known			/
Destination Allied Chemical			
Re: 2841.5 lbs Trichlor. March, 28, 1978			
Chemical Storage Area			
Waste contained in sealable leakproof containers.....		/	
Containers labeled		/	
Storage area relatively secure			/
Spill prevention appears adequate.....	/		
Cleanup apparatus or material on premises.....	/		
Records of spill occurrences.....		/	
Date of last spill		/	
Reported to this department		/	
Comments: Storage area for oils and such [illegible] situated. Two use in [illegible] Need			
Operation expect a little [illegible]			
Changes in operation or chemical usage since last inspection		/	
Comments:			
Sludges & solids adequately disposed of in production in area	/		
Production area kept relatively free of chemical spillage into floor drain	/		

Compliance Schedule Special Requirements

	Yes	No	N.A.
Permittee under complicance schedule.....			
Status of compliance.....			
All records and reports required by this department sent by prescribed date.....			

Prescribed date Jan 21 1973

Date sent N/A

Comments:

Gave them a few days to [illegible]
we shall report to [illegible] Office
[illegible] on east side of [illegible]

Signature Inspector [illegible] Date 12/19/72

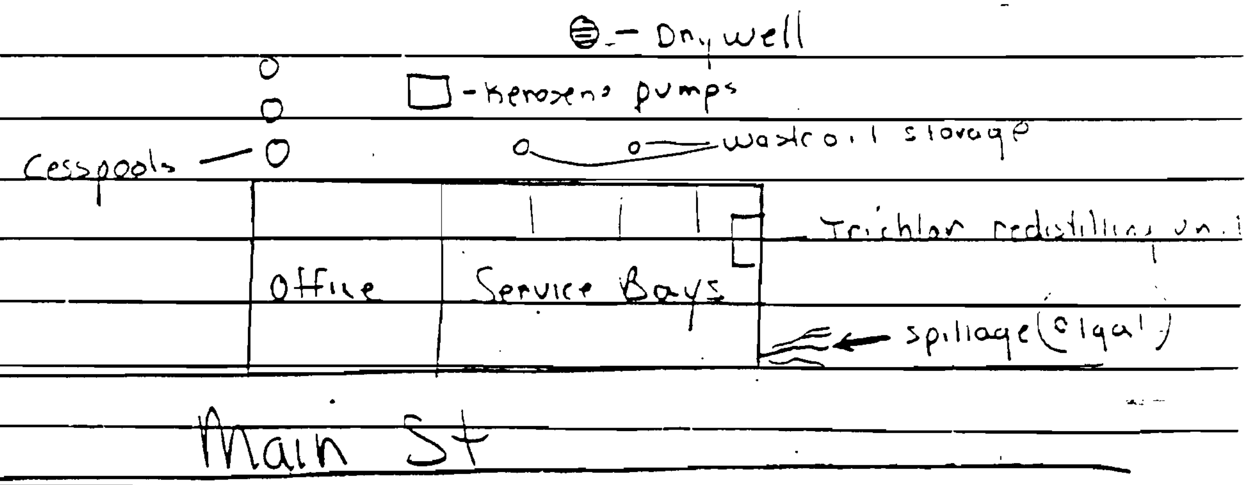
Signature Company Agent Bill [illegible] Date 12/21/72

ENVIRONMENTAL HEALTH
Continuation Sheet
Nassau County Health Department

Owner or Agent: Island Trans
Address: Main St. Westbury

Inspector: Gene M.

DATE	COMMENTS
1/11/79	Arrived at Island Transport at approx. 3:00. Spoke to Tim Gr[illegible], Maintenance Head. Inspected oil storage, and trichlor redistillation unit. Both [illegible] can be expected in this operation, however, some chemical is leaking out at corner [illegible] at S.E. corner. Informed him to clean up area.
	We proceeded to the west [illegible] maintenance lot. Mr Gr[illegible] pointed out 3 cesspools in sequence. See diagram. He also pointed out a drywell in the middle of the lot. This was [illegible] tanker filled with gasoline. It was also frozen over with [illegible] water. Sample not [illegible]. Informed Tim Gr[illegible] [illegible] [illegible]
	Gene M[illegible]



MASSACHUSETTS DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES & RESEARCH
ENVIRONMENTAL HEALTH LABORATORY SEC

RESULTS OF EXAMINATION

REPORTING LAB: TRACE ORGANICS

LAB ACCESS NO.: 900891

SOURCE: ISLAND TRANSPORTATION

MATRIX: WATER

DATE SAMPLED: 8 31 79

DATE RECEIVED: 8/31 79

DATE COMPLETED: 8 31 79

PARAMETER	ppb(ug/l.)
BENZENE	350
TOLUENE	786
XYLENE	3003
* ALIPHATIC HYDROCARBON	1571

ADDITIONAL HIGHER MOLECULAR WEIGHT HYDROCARBONS PRESENT

* C4 - C10 based on n-hexane

AUG 23 1979

ENVIRONMENTAL 334-5tc0
Information Sheet
Nassau County Health Department

Owner or Agent: Island Transportation Corp.
Address: 299 Main Street Westbury

Inspector: Hw

DATE COMMENTS (Maintenance & Equipment)

30 August 1979 Field Contact - Timothy E. Cropper V.P.
Results of sample taken on 8/21/79 - discussed with Tim Cropper.
Further advised Mr. Tim Cropper that another certified sample would have to be submitted to NCHD by Island Transportation Corp. to ascertain whether conditions have improved.
Herbert Welch NCHD
Sanitarian II

13 Sept 1979 Field Contact - Wm. Ryan (Plant Maintenance Foreman).
Spoke with Bill Ryan regarding waste water discharge into street (via pipe) from truck wash area. Will discuss problem further with Tim E. Cropper V.P. (Maintenance & Equipment).
Further advised Mr. Ryan regarding the DuBois Chemical product "SPRA-JeL" - being just as deleterious to ground water integrity as 1,1,1 Trichloro.
Herbert Welch NCHD
Sanitarian II

5. SLUDGE DISPOSAL: If sludge is created as a result of processing or treatment, what is ultimate disposal point?

6. DISCHARGE DATA (Continued) (See Instructions) ATTACH SKETCH SHOWING OUTFALL LOCATIONS

OUTFALL NO.	☐ Proposed ☐ Replacement ☒ Existing ☐ Expansion	TYPE OF WASTE	TYPE OF TREATMENT (If none, so state)
One		Biodegradeable Detergent	None

DESIGN FLOW	ACTUAL FLOW	FREQUENCY OF DISCHARGE	IS FLOW EQUALIZATION PROVIDED?
10 Gal/Day	10 Gal/Day	☐ Continuous ☒ Intermittent ☐ Batch	☐ Yes ☒ No If "Yes", describe in comments

PERIOD OF DISCHARGE		
Twelve Months per year	Five Days per week	Seven Hours per day

SURFACE DISCHARGE	If "Yes", Name of Receiving Waters	Classification	Waters Index No.
☐ Yes ☐ No			

SUBSURFACE DISCHARGE	If "Yes", Name of nearest Surface Water	Distance	SOIL TYPE	Depth to Water Table
☒ Yes ☐ No	Unknown	– Ft.	Unknown	Unknown

OUTFALL NO.	☐ Proposed ☐ Replacement ☐ Existing ☐ Expansion	TYPE OF WASTE	TYPE OF TREATMENT (If none, so state)

DESIGN FLOW	ACTUAL FLOW	FREQUENCY OF DISCHARGE	IS FLOW EQUALIZATION PROVIDED?
Gal/Day	Gal/Day	☐ Continuous ☐ Intermittent ☐ Batch	☐ Yes ☐ No If "Yes", describe in comments

PERIOD OF DISCHARGE		
Months per year	Days per week	Hours per day

SURFACE DISCHARGE	If "Yes", Name of Receiving Waters	Classification	Waters Index No.
☐ Yes ☐ No			

SUBSURFACE DISCHARGE	If "Yes", Name of nearest Surface Water	Distance	SOIL TYPE	Depth to Water Table
☐ Yes ☐ No		Ft.		

OUTFALL NO.	☐ Proposed ☐ Replacement ☐ Existing ☐ Expansion	TYPE OF WASTE	TYPE OF TREATMENT (If none, so state)

DESIGN FLOW	ACTUAL FLOW	FREQUENCY OF DISCHARGE	IS FLOW EQUALIZATION PROVIDED?
Gal/Day	Gal/Day	☐ Continuous ☐ Intermittent ☐ Batch	☐ Yes ☐ No If "Yes", describe in comments

PERIOD OF DISCHARGE		
Months per year	Days per week	Hours per day

SURFACE DISCHARGE	If "Yes", Name of Receiving Waters	Classification	Waters Index No.
☐ Yes ☐ No			

SUBSURFACE DISCHARGE	If "Yes", Name of nearest Surface Water	Distance	SOIL TYPE	Depth to Water Table
☐ Yes ☐ No		Ft.		

7. COMMENTS:

8. I hereby affirm under penalty of perjury that information provided on this form and any attached supplemental forms is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

APPLICANT'S SIGNATURE (See Instructions)	Date	Printed Name	Title
X [signature]	1/2/78	Timothy E. Cronner	Vice Pres. Maintenance

SEMI-ANNUAL WASTE REPORT

Company: Island Transportation Corp. Date: January 15. 1979

Permit#: NY - #0140155 Reporting Period: Previous 6 months

Item	Reporting Requirement	
	Name	Quantity
1. Waste generating chemicals and/or solvents purchased during reporting period.		
Solvents	Safety Kleen Corp. P.O. Box 768 Mineola, N.Y. 11501	10 gal./week approximately
Tricholoroethylene	Pride Solvents & Chemical Co., Inc. 86 Lamar Street West Babylon, N.Y. 11704	275 gal. approximately

2. Waste Removal

Attach copies of manifests or receipts from registered industrial waste scavenger. Must include nature, name and amount of waste, date removed, registration number, and name of scavenger.

General Waste Oil Co., Inc.
Huntington. New York 11746

3. Final Disposal Site for Waste (obtain information from scavenger)

New Jersey Waste Oil Refinery

4. Occurrence of Accidental Spills (include date, nature, and approximate amount spilled)

None

Signed Timothy E. Cooper

Title Vice-President Maintenance

CHEMICAL/SOLVENT WASTE REPORT

Bureau of Land Resources Management
Nassau County Department of Health

Name: Island Transportation corp

Address: 299 Main Street, Westbury, N.Y. 11590

Permit Number: 0140155

Report Period: June 80-Dec.80

List all waste generating chemicals and/or solvents purchased during the reporting period. Indicate for each the purpose or use, trade name or supplier and the quantity purchased.

Name of Chemical or Solvent	Purpose or Use	Trade Name or Supplier	Quantity Purchased
Solvent	Parts Cleaning	Safety Kleen Corp.	10 Gal/Wk.
		P.O. Box 768 Mineola, N.Y. 11501	Approximately

RECEIVED
JAN 23 1981
NCDH
BLRM

continued on reverse

CHEMICAL/SOLVENT WASTE REPORT

Bureau of Wastewater Management

Nassau County Department of Health

Name: Island Transportation Corp.

Address: 299 Main St., Westbury, NY 11590

Permit Number: 0140155

Report Period: Jan-June 198[illegible]

List all waste generating chemicals and/or solvents purchased during the reporting period. Indicate for each the purpose or use, trade name or supplier and the quantity purchased.

Name of Chemical or Solvent	Purpose or Use	Trade Name or Supplier	Quantity Purchased
Solvent	Parts Cleaning	Safety Kleen Corp	10 Gal./Wk.
		P.O. Box 768 Mineola, NY 11501	Approximately

RECEIVED
JUL 16 1980
NCDH
BWWC

continued on reverse

ENVIRONMENTAL
HEALTH
Continuation Sheet
Nassau County Health Department

Owner or Agent : Island Transportation

Address: 599 Main St Westbury

Inspector

DATE	COMMENTS
10/11/60	Visited Island Transportation + spoke to Mr. Lewis. I explained the 360 program with him + discussed the applications to be returned to this office C. J. Ferrara

EH 109a 1/58

PERMIT COMPLIANCE INSPECTION REPORT

Bureau of Land Resources Management

Nassau County Department of Health

Facility Name: ISLAND TRANSPORTATION CORP

Address: 299 MAIN ST WESTBURY

Company Representative: TIMOTHY CROPPER

Title:

Phone:

Changes in Name, Address, Rep.

Permit No. 30-11-86

☒ New ☐ Renewal

Effective Date of Permit: 1/2/81

Expiration Date of Permit: 1/30/82

Item	Yes	No	N/A
1. **Waste Storage and Handling**			
A. Adequate Spill Control?			
B. No obvious infraction of Fire Code?			
C. Proper waste containers?			
D. Proper Storage of incompatible wastes?			
E. Waste containers properly labeled?			
F. Proper drum stack size and aisles?			
G. Containers off ground and not leaking?			
H. Waste stored in secure area?			
2. Registered Industrial Waste Scavenger?			
Name			
DEC #			
☐ Different scavenger since last report			
3. Records			
A, B, C Proper waste inventory records?			

Item	Yes	No	N/A
3. Records (Cont'd.)			
D. Record of spills & notification of N.C.H.D.?			/
E. Record of special sampling results?			/
4. Records kept a minimum of 3 years?			
5. Reports submitted on time?		✓	
6. Waste storage in comformance with permit?			
Quantities O.K.? Drums			/
1(5000GAL)underground Tanks			
Maximum storage time O.K.?			
7. Sampling in conformance with permit?			
8. Is compliance schedule met as required by permit?			
9. Overall Inspection Rating			
☐ Satisfactory			
☐ Non-Compliance ☐ Major ☒ Minor			

Date	Item	Comments
		WASTE REPORT DUE FOR 1ST HALF OF 1981
		VISITED ISLAND TRANSPORTATION + FOUND THE FACILITY TO BE CLOSED
		THE ENTIRE STORAGE YARD HAS BEEN CLEANED & ALL TRUCKS ARE GONE, THERE
		IT APPEARS THAT THIS FACILITY IS OUT OF BUSINESS.

Signature of Inspector: C. F. [illegible]

Date 11/[illegible]/81

Signature of Company Representative:

Date

FH 702 9/80

NASSAU COUNTY DEPARTMENT OF HEALTH

240 OLD COUNTRY ROAD, MINEOLA, N. Y., 11501

FRANCIS T. PURCELL
County Executive

JOHN J. DOWLING, M.D., M.P.H.
Commissioner

FRANCIS V. PADAR, P.E., M.C.E.
Deputy Commissioner
for Environmental Health

October 31, 1980

Mr. Morris Bruckman, P.E.
New York State Department of
Environmental Conservation
SUNY-Bldg. 40
Stony Brook, New York 11790

Re: Island Transportation
Part 360 Application & Permit

Dear Mr. Bruckman:

Please find enclosed an application for a Part 360 permit to replace the SPDES hold and haul permit for the above facility. We have reviewed the application and found it to be complete.

Consequently, a draft permit has been drawn up and enclosed. This permit requires a facility number, your signature and an issuance date.

If you have any questions, please contact me at 535-2404.

Very truly yours,

L. Sama

LS:ceg
Encl.

L. Sama
Public Health Engineer
Bureau of Land Resources Mgmt.

360-2 (8/77) NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FACILITY NO. 2414

EXPIRATION DATE 1/30/82

PERMIT

Under the Environmental Conservation Law, Article 27, Title 7, Part 360

☐ CONSTRUCTION ☐ INITIAL ISSUE ☐ REISSUANCE
☐ OPERATION ☐ RENEWAL ☐ MODIFICATION

PERMIT ISSUED TO	ADDRESS OF PERMITTEE	TELEPHONE NO.
Island Transportation Corp.	299 Main St., Westbury, NY 11590	516-334-5400

LOCATION OF PROJECT Town	County	Environmental Conservation Regional Office
		Stony Brook, NY 11790

DESCRIPTION OF PROJECT	ON-SITE SUPERVISOR

GENERAL CONDITIONS

1. The permittee shall file in the office of the Environmental Conservation Region specified above, a notice on intention to commence work at least 48 hours in advance of the time of commencement and shall also notify said office promptly in writing of the completion of the work.
2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation who may order the work suspended if the public interest so requires.
3. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.
4. All work carried out under this permit shall conform to the approved plans and specifications. Any amendments must be approved by the Department of Environmental Conservation prior to their implementation.
5. The permittee is responsible for obtaining any other permits, approvals, easements and rights-of-way which may be required for this project.
6. By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with Part 360 and the special conditions. Any variances granted by the Department of Environmental Conservation to Part 360 must be in writing and attached hereto.

SPECIAL CONDITIONS

ISSUE DATE	ISSUING OFFICER	SIGNATURE
		X

Facility # 30 H 56

Permit Conditions for Operation of a Waste Generating Facility

1. The following minimum standards will apply for storing and handling wastes:

   a. There should be adequate spill control in the storage area; i.e. an impervious storage pad or floor, bermed to facilitate containment of spills. Stormwater shall be directed to prevent entry into the pad.

   b. Building and fire codes should be met where required.

   c. Wastes should be stored in leakproof containers which are compatible with the waste materials. The containers should not be corroded or leaking and should be tightly closed.

   d. Wastes which deleteriously react with each other must not be stored directly adjacent or mixed together.

   e. Waste containers should be labeled, numbered and distinctly coded and identified as to contents in accordance with Department of Transportation Regulations 49CFR, Part 172.

   f. Waste drums should not be stacked more than two high and aisles should be provided so that all drums are accessible and clearly visible for inspection.

   g. Waste drums should be stored off the ground a minimum of 2 inches to facilitate detection of bottom leaks.

   h. Wastes should be stored in a secured area.

2. Removal of wastes should be only by registered industrial scavenger.

30 11 56

3. Records should be kept on premises and made available to personnel from the Department of Environmental Conservation or its agents upon request. The following should be included:

   a. Quantity and type waste generated.

   b. Waste container inventory and identification including starting date of collection.

   c. Waste removals by scavenger including container I.D. numbers and scavenger I.D. numbers and final disposal site.

   d. Spills - Notification of DEC (751-7900) and/or Health Department (535-2404) should be made immediately.

   e. Sampling results

4. All records shall be kept a minimum of three years.

5. A report shall be filed on an approved form by the fifteenth day of the following months each year:

   February and August

   Reports shall be filed with the Nassau County Department of Health.

6. Limits on maximum storage time and quantities of wastes stored on the site shall be _____.

   Less than 90 days for one 500 gal. underground tank.

7. Samples shall be collected and analyzed as follows:

   N.A.

30 H 56

8. Compliance Schedule

The waste storage area is to be modified to conform with Item 1a of permit conditions within 12 weeks of the effective date of the permit. All other conditions to be complied with no later than four weeks after EDP.

NOTICE OF PERMIT

for:

☐ CONSTRUCTION	☐ INITIAL ISSUE	☐ REISSUANCE
☒ OPERATION	☐ RENEWAL	☐ MODIFICATION

has been issued to: ISLAND TRANSPORTATION CORP.

address: 299 MAIN STREET, WESTBURY, NEW YORK 11590

for a project described as: HOLD TO HAUL HAZARDOUS WASTE

under the Environmental Conservation Law,
Article 27, Title 5, Part 360 (Solid Waste Management Facilities)

NOTE:
- This Notice of Permit must be posted on the project site in such a manner that it is protected from weather and is in a location readily visible to the public.
- A copy of the Permit with the general and special conditions noted thereon will be shown to anyone upon request.

New York State
Department of Environmental Conservation

47-12-2 (8/77)

Morris Bruckman

Issuing Officer MORRIS BRUCKMAN, P.E.

BLDG.#40, SUNY, STONY BROOK, NEW YORK 117[illegible]

Address

30-H-56	1/21/81	1/20/82
Permit No.	Issue Date	Expiration Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPLICATION FOR APPROVAL TO OPERATE A SOLID WASTE MANAGEMENT FACILITY

FOR STATE USE ONLY

DATE RECEIVED

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

1. OWNER'S NAME: PETER PIORE

2. ADDRESS (Street, City, State, Zip Code)

3. Telephone No.

4. OPERATOR'S NAME: SAME

5. ADDRESS (Street, City, State, Zip Code)

6. Telephone No.

7. ENGINEER'S NAME: NONE

8. ADDRESS (Street, City, State, Zip Code)

9. Telephone No.

10. ON-SITE SUPERVISOR: — ...-J.1 CIPPER

11. ADDRESS (Street, City, State, Zip Code): 116 RUDER AVE. DIX HILLS NY. 11746

12. Telephone No.: 516-243 4577

13. HAS THE INDIVIDUAL NAMED IN ITEM 10 ATTENDED A DEPARTMENT SPONSORED OR APPROVED TRAINING COURSE?
☐ Yes Date Course Title Location ☒ No

14. PROJECT/FACILITY NAME: ISLAND TRANSPORTATION CORP.

15. COUNTY IN WHICH FACILITY IS LOCATED: NASSAU

16. ENVIRONMENTAL CONSERVATION REGION: NO MAP

17. TYPE OF PROJECT FACILITIES: ☐ Composting ☐ Transfer ☐ Shredding ☐ Baling ☐ Sanitary Landfill ☐ Incineration ☐ Pyrolysis ☐ Resource Recovery-Energy ☐ Resource Recovery-Materials ☐ Other TRUCKING COMPANY

18. HAS THIS DEPARTMENT EVER APPROVED PLANS AND SPECIFICATIONS AND/OR ENGINEERING REPORTS FOR THIS FACILITY? ☐ Yes Date ☒ No

19. LIST WASTES NOT ACCEPTED

NONE

20. BRIEFLY DESCRIBE OPERATION

PETROLEUM PRODUCT TRANSPORTER WITH REPAIR FACILITY FOR OWN TRACTOR TRAILERS

ESJ

21. IF FACILITY IS A SANITARY LANDFILL, PROVIDE THE FOLLOWING INFORMATION:
a. Total useable area: (Acres) Initially Currently
b. Distance to nearest offsite, downgradient (water supply well)
No. of groundwater monitoring wells: Upgradient Downgradient

22. INDICATE WHICH ATTACHMENTS, IF ANY, ARE INCLUDED WITH THIS APPLICATION:
☐ Form 47-19-2 or SW-7 ☐ Operations Plan & Report ☐ USGS Topographic Map ☐ Record Plan ☐ Other
☐ Construction Certificate ☐ Boring Logs ☐ Water Sample Analysis ☐ None

23. CERTIFICATION:
I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

10/21/80
Date

Signature and Title

FIELD COPY

NASSAU COUNTY DEPARTMENT OF HEALTH

240 OLD COUNTRY ROAD
MINEOLA, N.Y. 11501

RALPH G. CASO
County Executive
JOHN J. DOWLING, M.D., M.P.H.
Commissioner
FRANCIS V. PADAR, P.E.
Asst. Deputy Commissioner
Div. of Environmental Health

November 15, 1977

New York State Department of
Environmental Conservation
Pollutant Discharge Elimination
System Section
50 Wolf Road
Albany, New York 12233

Attention: Mr. George Hansen

Gentlemen:

In accordance with the UPA effective November 1, 1977, we have sent SPDES applications to five industrial firms, list attached.

Also sent and attached here were:

1. the cover letter used
2. the list of fees taken from UPA
3. the Project Permit Requirement Questionaire.

A copy of the organic chemical survey for each company is also enclosed for your refrence in evaluating the applications when returned to you.

Very truly yours,

L. Sama
SPDES Coordinator
Bureau of Water Pollution Control

LS/lhg
enc.

Facility ID No. : NY 0140155

Effective Date : June 12/78

Expiration Date : June 11/81

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)
PERMIT FOR THE STORAGE AND REMOVAL OF
POTENTIALLY HAZARDOUS WASTES
(NO DISCHARGE PERMITTED)

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the provisions or the Federal Water Pollution Control Act, as amended by the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500, October 18, 1972, (33 U.S.C. Sec. 1251 et. seq.).

is authorized to store wastes for removal by authorized industrial scavenger from the facility described below:

in accordance with the monitoring requirements and other conditions set forth in this permit.

This permit and the authorization to store and have wastes removed shall expire on midnight of the expiration date shown above and the permitee shall not discharge wastes after the expiration date unless this permit has been renewed, or written authorization is given by the Department. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the Department no later than 180 days prior to the expiration date.

By Authority of R.D.Cusumano,P.E. - Director, Wastewater Management
Designated Representative of Commissioner of the
Department of Environmental Conservation

June 5, 1978
Date

R D Cusumano
Signature

DRAFT

Facility ID No. : NY 0140155

Effective Date : April 14, 1978

Expiration Date : April 13, 1981

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)
PERMIT FOR THE STORAGE AND REMOVAL OF
POTENTIALLY HAZARDOUS WASTES
(NO DISCHARGE PERMITTED)

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the provisio of the Federal Water Pollution Control Act, as amended by the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500, October 18, 1972, (33 U.S.C. Sec. 1251 et. seq.).

Island Transportation

is authorized to store wastes for removal by authorized industrial scavenger from the facility described below:

299 Main Street
Westbury, N. Y. 11590

in accordance with the monitoring requirements and other conditions set forth in this permit.

This permit and the authorization to store and have wastes removed shall expire on midnight of the expiration date shown above and the permitee shall not discharge wastes after the expiration date unless this permit has been renewed, or written authorization is given by the Department. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the Department no later than 180 days prior to the expiration date.

By Authority of R.D.Cusumano,P.E. - Director, Wastewater Management
Designated Representative of Commissioner of the
Department of Environmental Conservation

April 14, 1978
Date

R D Cusumano
Signature

DRAFT

Facility ID No. NY 0140155

During the period beginning EDP and lasting until EDP + 3 years the wastes from the permitted facility shall be controlled and monitored by the permittee as specified below:

All industrial wastes shall be collected in sealable leakproof holding tanks or drums. The storage vessels shall be suitable for and utilized and maintained in a manner to minimize corrosion and other damage and to prevent discharges onto the ground or discharged into the groundwater or surface waters of the State. Wastes shall be removed by a licensed industrial waste scavenger only. It shall be the responsibility of the permit holder to determine whether the scavenger employed is licensed by the State. The following records and manifests shall be maintained on the premises of this facility:

1. Amount of waste producing chemicals or solvents purchased during the reporting period.
2. Nature, name and amount of waste removed.
3. Date and method of removal. Copy of receipts or manifests.
4. Registration number and name of scavenger.
5. Final disposal site for waste.
6. Occurance of accidental spills.

Copies of records are required to be submitted to:

Bureau of Wastewater Management
Nassau County Health Department
240 Old Country Road
Mineola, New York 11501

Such records should be submitted by the last day of January and July of each year, covering collection for July to December and January to June respectively, if wastes total more than 100 gallons/year. Where wastes are less than 100 gallons/year only one submission need be made and that on the last day of January covering the previous calender year's collection.

Compliance Schedule

The permit holder shall have until May 14, 1978 to make any necessary preparations for meeting the permit requirements, as described on page 3, (if required).

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPLICATION FOR APPROVAL TO OPERATE A SOLID WASTE MANAGEMENT FACILITY

FOR STATE USE ONLY

PROJECT NO.	DATE RECEIVED
DEPARTMENT ACTION ☐ Approved ☐ Disapproved	DATE

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

1. OWNER'S NAME	2. ADDRESS (Street, City, State, Zip Code)	3. Telephone No.
PETER FIORETTI	299 MAIN ST. WESTBURY N.Y. 11590	516-334-5000
4. OPERATOR'S NAME	5. ADDRESS (Street, City, State, Zip Code)	6. Telephone No.
SAME		
7. ENGINEER'S NAME	8. ADDRESS (Street, City, State, Zip Code)	9. Telephone No.
NONE		
10. ON-SITE SUPERVISOR	11. ADDRESS (Street, City, State, Zip Code)	12. Telephone No.
TIMOTHY CROPPER	116 RYDER AVE. DIX HILLS N.Y. 11746	516-643-4572

13. HAS THE INDIVIDUAL NAMED IN ITEM 10 ATTENDED A DEPARTMENT SPONSORED OR APPROVED TRAINING COURSE?
☐ Yes Date _____ Course Title _____ Location _____ ☒ No

14. PROJECT/FACILITY NAME	15. COUNTY IN WHICH FACILITY IS LOCATED	16. ENVIRONMENTAL CONSERVATION REGION
ISLAND TRANSPORTATION CORP.	NASSAU	NO MAP

17. TYPE OF PROJECT FACILITIES: ☐ Composting ☐ Transfer ☐ Shredding ☐ Baling ☐ Sanitary Landfill ☐ Incineration ☐ Pyrolysis ☐ Resource Recovery-Energy ☐ Resource Recovery-Materials ☒ Other TRUCKING COMPANY

18. HAS THIS DEPARTMENT EVER APPROVED PLANS AND SPECIFICATIONS AND/OR ENGINEERING REPORTS FOR THIS FACILITY? ☐ Yes Date _____ ☒ No

19. LIST WASTES NOT ACCEPTED

NONE

20. BRIEFLY DESCRIBE OPERATION

PETROLEUM PRODUCT TRANSFER WITH REPAIR FACILITY FOR OWN TRACTOR, TRAILERS

21. IF FACILITY IS A SANITARY LANDFILL, PROVIDE THE FOLLOWING INFORMATION:
a. Total useable area: (Acres) Initially _____ Currently _____
b. Distance to nearest offsite, downgradient, water supply well _____ Feet
c. No. of groundwater monitoring wells Upgradient _____ Downgradient _____

22. INDICATE WHICH ATTACHMENTS, IF ANY, ARE INCLUDED WITH THIS APPLICATION: MATERIAL FLOW SHEET
☐ Form 47-19-2 or SW-7 ☐ Operations Plan & Report ☐ USGS Topographic Map ☐ Record Forms ☐ Other PLOT SKETCH
☐ Construction Certificate ☐ Boring Logs ☐ Water Sample Analysis ☐ None

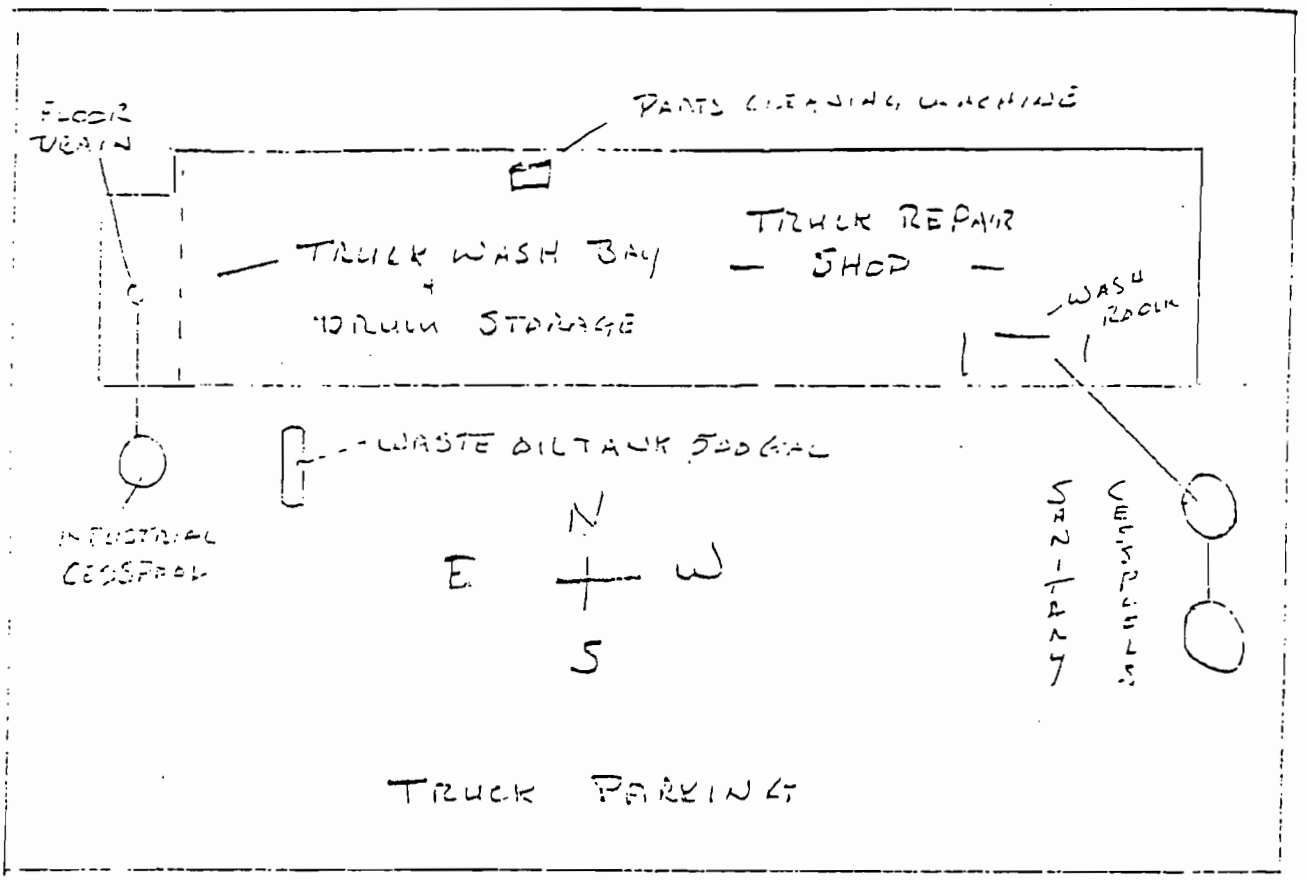
23. CERTIFICATION:
I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

10/20/86 Signature W. F. Mauf

MATERIAL FLOW SKETCH

ISLAND TRANSPORTATION CORP.

MAIN ST



HOPPER ST

AUTO SALVAGE YD.

MATERIAL FLOW DESCRIPTION

1. TRUCKS WASHED WITH DETERGENT IN EAST BAY - DRAINAGE INTO UNDERGROUND POOL.
2. SAFETY-CLEAN CORP REMOVES LIQUID + SOLID WASTE @ BI WEEKLY RATE (AFFIX)
3. ENGINE WASTE OIL REMOVED BY GENERAL WASTE CO. CO.

HASSAU COUNTY DEPARTMENT OF HEALTH

240 OLD COUNTRY ROAD, MINEOLA, N. Y., 11501

FRANCIS T. PURCELL
County Executive

JOHN J. DOWLING, M.D., M.P.H
Commissioner

FRANCIS V. PADAR, P.E., M.C.E
Director of Environmental Health

1/22/80.

Island Transportation
2900 Main St.
Westbury, N.Y. 11590
Att: Mr. T. Cropper

Gentlemen:

As stated in the permit (NY# 0140155) issued to you for the storage and the removal of industrial chemical and/or solvent wastes, you are required to report periodically on the nature of these activities.

Please complete the attached report for the period July-Dec. 1979, and return it to this office within 30 days.

If you have any questions, please feel free to call me at 535-2404

Very truly yours,

Larry Sama
Public Health Engineer
Bureau of Wastewater Management

Encl.

EH 707 1/80

CHEMICAL/SOLVENT WASTE REPORT

Bureau of Wastewater Management

Nassau County Department of Health

Name: Island Transportation Corp.

Address: 299 Main St. Westbury, N.Y. 11590

Permit Number: 0140155

Report Period: 7/9/79 - 1/28/

List all waste generating chemicals and/or solvents purchased during the reporting period. Indicate for each the purpose or use, trade name or supplier and the quantity purchased.

Name of Chemical or Solvent	Purpose or Use	Trade Name or Supplier	Quantity Purchased
Solvent	Parts Cleaning	Safety Kleen Corp.	10 Gal./Wk.
		P.O. Box 768 Mineola, N.Y, 11501	Approximately

RECEIVED
JAN 30 1980
NCDH
BWWC

SEMI-ANNUAL WASTE REPORT

Company: Island Transportation Corp. Date: July 9, 1979

Permit#: NY #0140155 Reporting Period: Previous 6 months

Item	Reporting Requirement	
	Name	Quantity
1. Waste generating chemicals and/or solvents purchased during reporting period.		
Solvents	Safety Kleen Corp. P.O. Box 768 Mineola, N.Y. 11501	10 gal./week approximately
Trichloroethylene	Discontinued use	

2. Waste Removal

Attach copies of manifests or receipts from registered industrial waste scavenger. Must include nature, name and amount of waste, date removed, registration number, and name of scavenger.

General Waste Oil Co., Inc.
Huntington, New York 11746

3. Final Disposal Site for Waste (obtain information from scavenger)

New Jersey Waste Oil Refinery

4. Occurrence of Accidental Spills (include date, nature, and approximate amount spilled)

None

Signed Timothy E. Keegan

Title Vice-President, Maintenance

THOMAS S. GULOTTA
COUNTY EXECUTIVE

JOSEPH G. BOSLET, JR.
FIRE MARSHAL

NASSAU COUNTY FIRE COMMISSION
OFFICE OF FIRE MARSHAL
899 JERUSALEM AVENUE
P.O. BOX 128
UNIONDALE, NEW YORK 11553

August 1989
Insp. No. GS-96-111

ISLAND TRANSPORTATION OR CURRENT RESIDENT
299 MAIN ST
NEW CASSEL, NEW YORK 11590

TO WHOM IT MAY CONCERN:

Article III of the Nassau County Fire Prevention Ordinance, Section 3.6.3.1.2 requires that all existing underground steel storage tanks be replaced in accordance with the following schedule:

All steel tanks placed into service after February 23, 1961 and before February 23, 1976 shall be replaced, removed or permenantly abandoned by February 23, 1990.

The following is a list of tanks at your location which our records indicate require replacement, abandonment or removal:

SIZE	CONTENTS	INSTALLATION DATE
10K	DIESEL	2/15/72
4K	DIESEL	1/1/63
4K	DIESEL	1/1/63
4K	GASOLINE	5/1/66

If you have any questions please feel free to call this office at (516) 566-5832.

RECD BY

Very truly yours,

David M. Barlow
Supervising Fire Inspector
Industrial Division

10/[illegible]

1679C

FMIGS96 00111 PERMIT NO. 02795

STATE OF NEW YORK
COUNTY OF NASSAU
OFFICE OF FIRE MARSHAL

TR FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK REGISTRATION

LOCATION: ISLAND TRANSPORTATION CORP. 299 MAIN ST NEW CASSEL, NY 11590

ISSUED TO: NAME ISLAND TRANSPORTATION CORP. DATE ISSUED: 08/31/86
ADDRESS 299 MAIN ST EXPIRE DATE: 09/30/91
NEW CASSEL, NY 11590

TANK	SIZE	PRODUCT	DATE INSTALLED	DATE TESTED	CONSTRUCTION
HB01	10K	3 01993 01	02/15/72	09/11/80	STL
HB02	4K	3 01993 01	01/01/63	09/11/80	STL
HB03	4K	3 01993 01	01/01/63	09/11/80	STL
HB04	4K	3 01203 00	05/01/66	09/11/80	STL

****

ASSISTANT FIRE MARSHAL

THOMAS S. GULOTTA
COUNTY EXECUTIVE
JOSEPH G. SCALEA, JR.
FIRE MARSHAL

NASSAU COUNTY FIRE COMMISSION
OFFICE OF FIRE MARSHAL
868 JERUSALEM AVENUE
P.O. BOX 128
UNIONDALE, NEW YORK 11553

TO: NASSAU COUNTY FIRE MARSHAL

FM KEY # GS-96-111

FROM: ~~A. VOLINO & SONS, INC.~~
~~P.O. BOX 128~~
~~CARLE PLACE, N.Y. 11514~~

CONCERNING TANKS AT:
SAM TOU SALVAGE Co.
199 MAIN ST. WESTBURY N.Y.

The following flammable/combustible liquid storage tanks at the above location have been:

T - Placed temporarily out-of-service (if permitted), or

(P) - Permanently abandoned in place, or

R - Removed from the premises.

(Indicate one of the above letters under "STATUS" for each tank.)

	TANK TYPE*	TANK SIZE	CONSTRUCTION	STATUS	DATE WHEN DONE
1	U/G	10,000	STEEL	P	7-18-90 ✓
1	U/G	4000	"	P	7-19-90 ✓
1	U/G	4000	"	P	7-20-90 ✓
1	U/G	4000	"	P	7-23-90 ✓

* NOTE: If the tank type is unknown, indicate either A/G (aboveground) or U/G (underground). If more than 8 tanks, use an additional sheet.

All work as indicated above has been done in accordance with the applicable Sections of Article III of the Nassau County Fire Prevention Ordinance.

A. VOLINO & SONS INC
Name

Pat Volino
Signature

County of NASSAU

State of New York

sworn to before me this

24th day of July 1990

JOSEPH SINISCALCHI
NOTARY PUBLIC, State of New York
No. 30-3687900
Qualified in Nassau County
Commission Expires March 30, 1991

Notary Stamp

08A1C / 110788

Joseph Siniscalchi
Notary Signature

JOSEPH SINISCALCHI
NOTARY PUBLIC, State of New York
No. 30-3687900
Qualified in Nassau County
Commission Expires March 30, 1991

INVESTIGATION - 566-5979 • SCHOOL - 566-5824 • INDUSTRIAL - 566-5819 • INSTITUTIONAL - 566-5819 • GENERAL INSPECTION - 566-5926

with 6" high letters
Toilet Facilities. The e
consist of one of
Shop toilet with 1

oking South

1'-0"

200:0

Note: Alter height of existing
yard drains at new conc slab

Exist conc slab

New conc. slab - (reinforced with 6-6, 10/10)

H.D. c.i. manhole
cover & frame

1 Section -
6' dia - 5'6" &
dome - precast std.

2 Sections
8'-6" dia, & 4'-6" &
dome - std. precast

125'-0"

1'-2"
sting 1 Story

84'-6" ±
New addition

10'-0"

Grease Trap

Drain

Pit

Drain

Wash Bay

t. Shop Area - Tenant A
-- 1. Story.
ste Laker - C2-1886

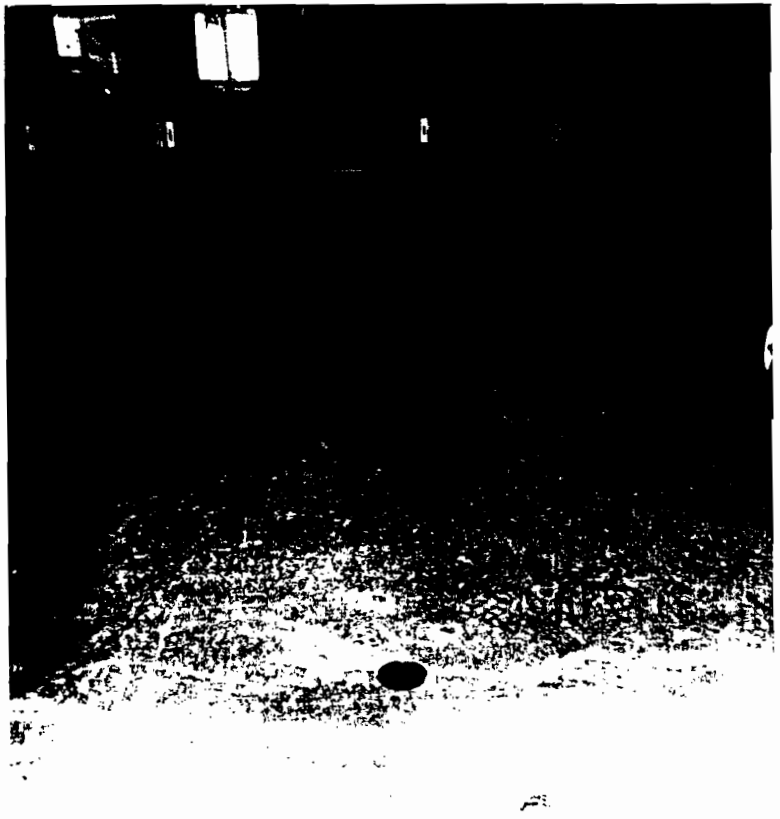
New Shop Area - Tenant A
1 Story

Appendix A.3

Photograph Log (1 of 5)

299 Main Street Site #1-30-0435S

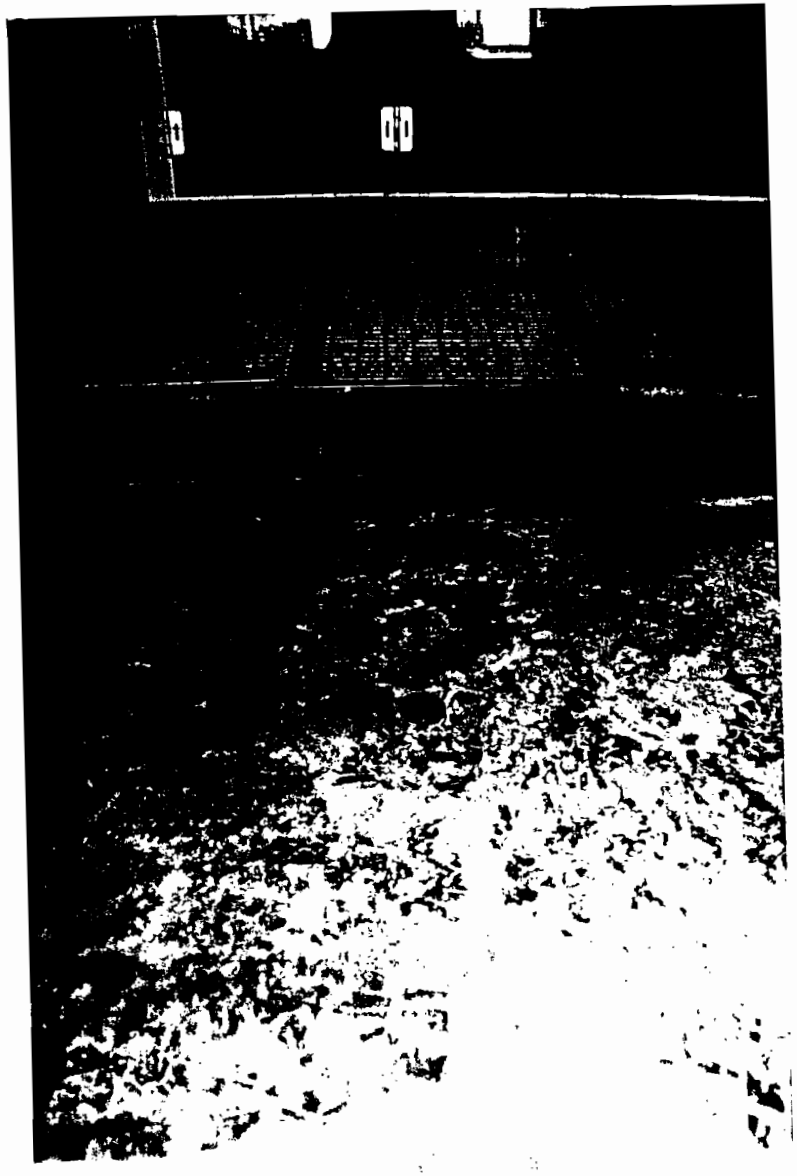
Photograph 1



Photograph 2

Photograph Log (2 of 5)

299 Main Street Site #1-30-0435S

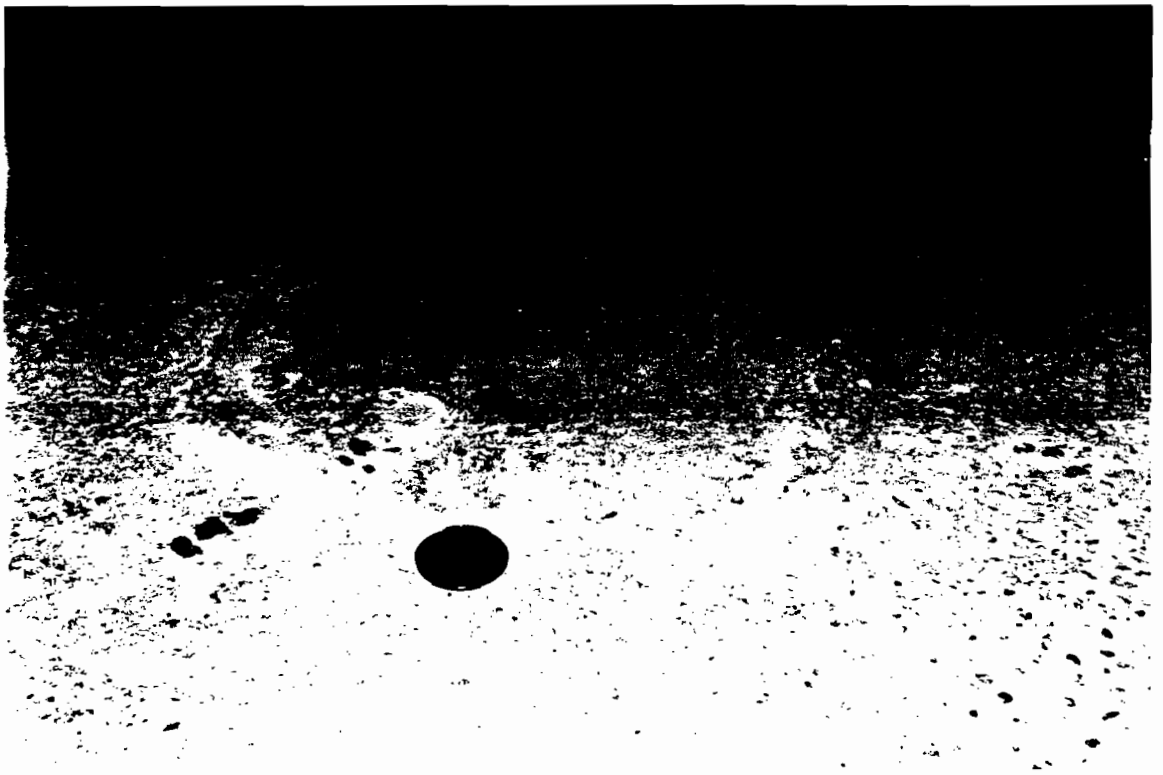


Photograph 3

Photograph 4

Photograph Log (3 of 5)

299 Main Street Site #1-30-0435S



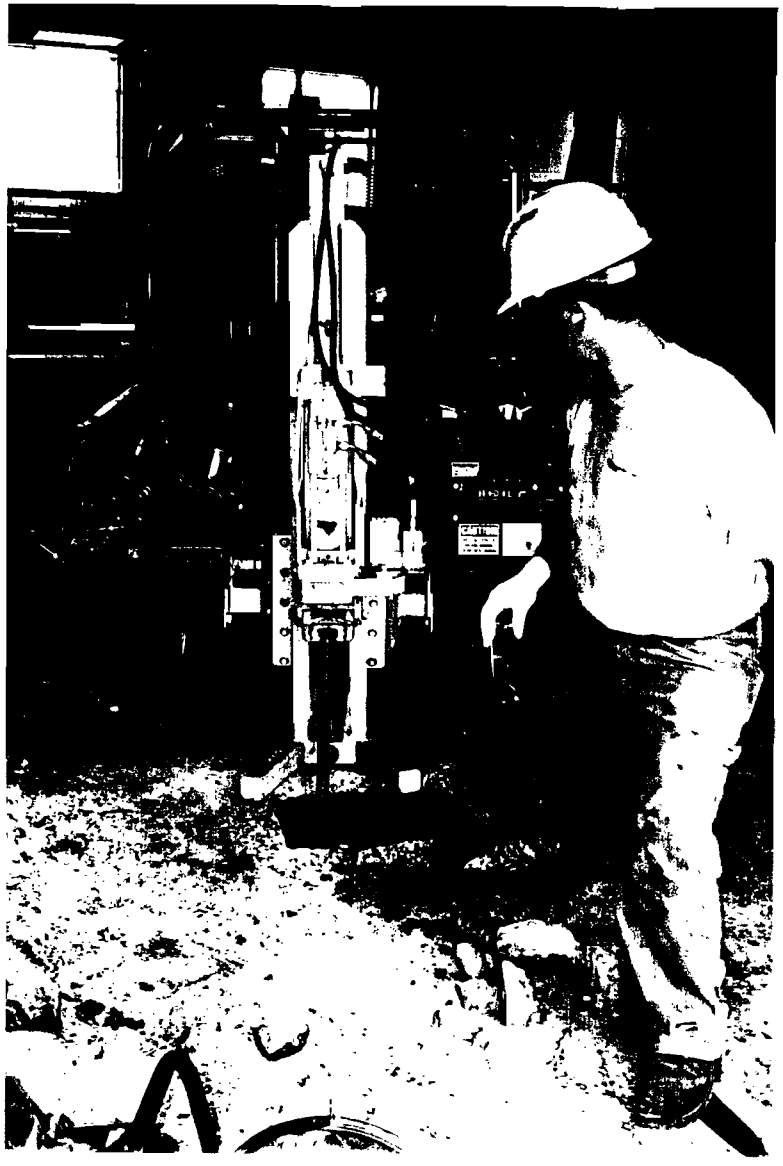
Photograph 5

Photograph 6

Photograph Log (4 of 5)

299 Main Street Site #1-30-0435S

Photograph 7



Photograph 8

Photograph Log (5 of 5)

299 Main Street Site #1-30-0435S

Photograph 9

Photograph 10

Appendix A.4

Impact Environmental
a division of impact environmental consulting, inc.
1 Village Plaza
Kings Park, New York 11754
516.269.8800 telephone
516. 269.1599 facsimile

Remote Survey

Focussed Remedial Investigation/Feasibility Study

July 15, 1999

Conducted at:

Site No. 1-30-043S
299 Main Street
Westbury, New York

Client:

2632 Realty Development Corp.
Westbury, New York

User:

New York State Department of Environmental Conservation
Division of Environmental Remediation
50 Wolf Road
Albany, New York

Remote Survey

Focussed Remedial Investigation/Feasibility Study

July 15, 1999

Conducted at:

Site No. 1-30-043S
299 Main Street
Westbury, New York

Client:

2632 Realty Development Corp.
Westbury, New York

User:

New York State Department of Environmental Conservation
Division of Environmental Remediation
50 Wolf Road
Albany, New York

TABLE OF CONTENTS

REPORT HOLDER	NUMBER OF REPORTS ISSUED
NYSDEC Bureau of Eastern Remedial Action	1
NYSDEC Division of Environmental Remediation	4
NYSDEC Bureau of Environmental Exposure Investigation	2
NYSDEC Region 1, Office of the Commissioner	1
NYSDEC, Division of Environmental Enforcement	1
2632 Realty Development Corp.	1
Rivken, Radler & Kremer	1
Impact Environmental Consulting, Inc. Corporate Records	1

1.0 Purpose & Scope

This investigation was performed to identify the presence of any exterior routes or mechanisms that would function through design or default to allow for the release or injection of hazardous substances to the subsurface soil of the site located at 299 Main Street, Westbury, New York, herein identified as the subject property.

The investigative protocols used for this assessment were based upon the following documents: 1) United States Environmental Protection Agency's A Compendium of Superfund Field Operations Methods; and 2) the Geophysical Survey Systems, Inc. SIR System-2 Operation Manual.

- **Site Description**
- **Survey, Sampling and Analysis Plan**
- **Presentation of Imagery**
- **Evaluation of Results**

Presented herein are the results of the Focussed Remedial Investigation/Feasibility Study Remote Survey conducted by Impact Environmental Consulting, Inc. on the subject property [see ***Plate #1:*** *Project Location Map, Wesbury, New York*]. The subject property is identified by the New York State Department of Environmental Conservation as Number 1-30-043S.

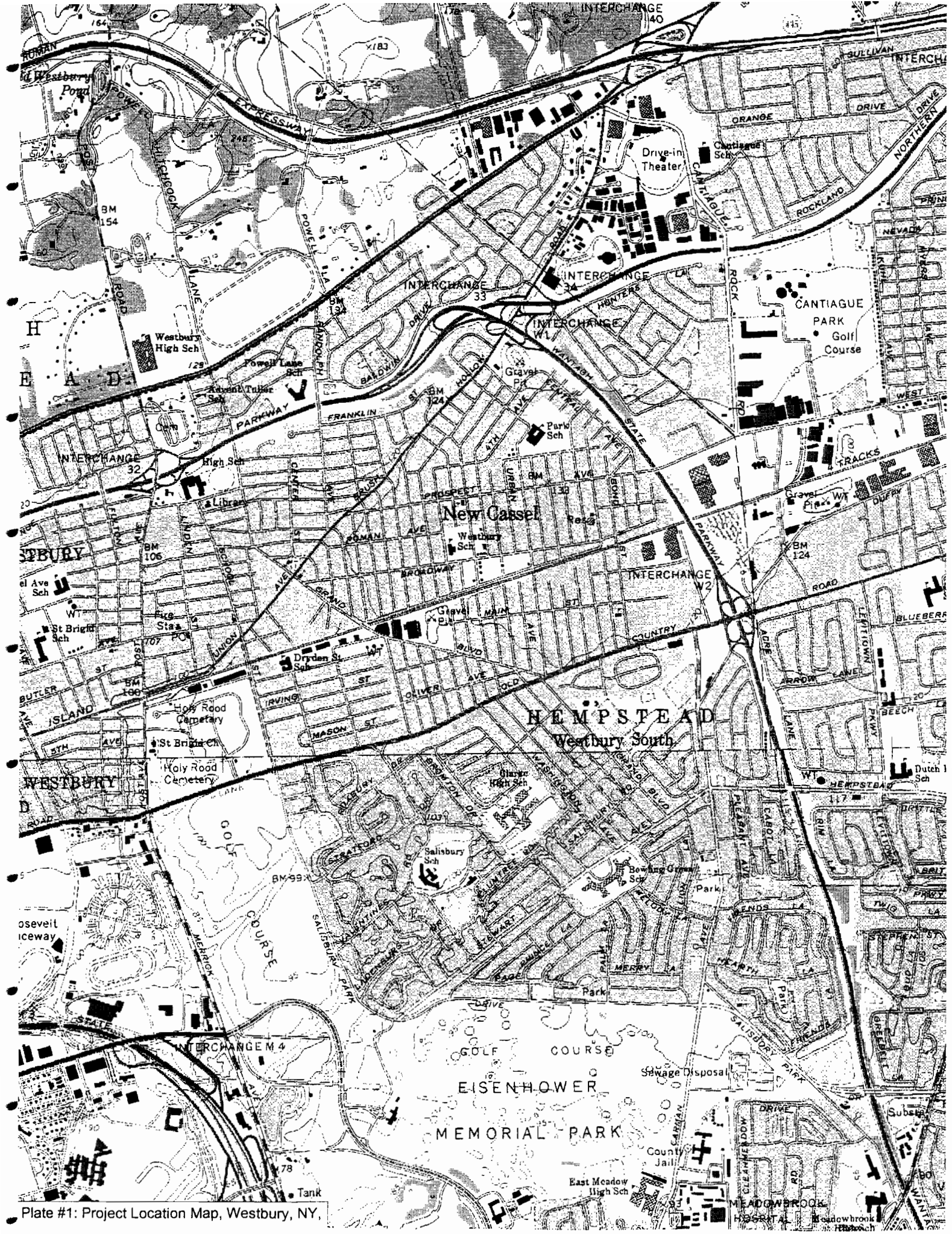


Plate #1: Project Location Map, Westbury, NY,

2.0 Site Description

2.1 Topography

The areal extent of the subject property was approximately 25,000 square feet. The subject property contained one single-story, masonry building with an approximate footprint of 11,500 square feet. The surface area of the subject property consisted of asphalt parking areas, concrete walkways, and exposed soil. The subject property exhibited low topographic relief (less than three percent slopes).

2.2 Site History

The subject property was initially developed sometime between 1950 and 1962 and consists of a garage with a number of bays and office space. Island Transportation Company (ITC) a truck transit company formerly utilized the property. ITC used trichloroethylene (TCE) to wash asphalt residues from its trucks prior to 1980. A Nassau County Department of Health (NCDH) inspection in 1978 recorded the storage of 2,841 pounds of TCE at the subject property. Additionally, the inspection identified the presence of oil staining in a storage area. In 1979 the NCDH discovered that ITC was discharging wastewater from its truck cleaning operations to the adjacent street.

A subsequent operator of the subject property, Sam-Ton Towing and Salvage (STS) was sited by the United States Environmental Protection Agency in 1990 for operating an unpermitted Class V Underground Injection Well (UIW). On November 2, 1993 a fire occurred at STS and at least seven drums of unknown contents spilled during fire suppression activities.

Currently, the subject property is utilized as an automobile body shop. Currently, there are no known on-site routes or mechanisms for the migration of contaminants to the subsurface soil at the subject property.

3.0 Survey Plan

A survey plan was designed to identify any routes or mechanisms for the migration of contaminants released at the subject property. Potential routes and mechanisms included underground storage tanks, underground injection wells, sub-grade storage vaults and buried portable storage containers (drums). The survey was performed with a ground penetrating radar (GPR) unit.

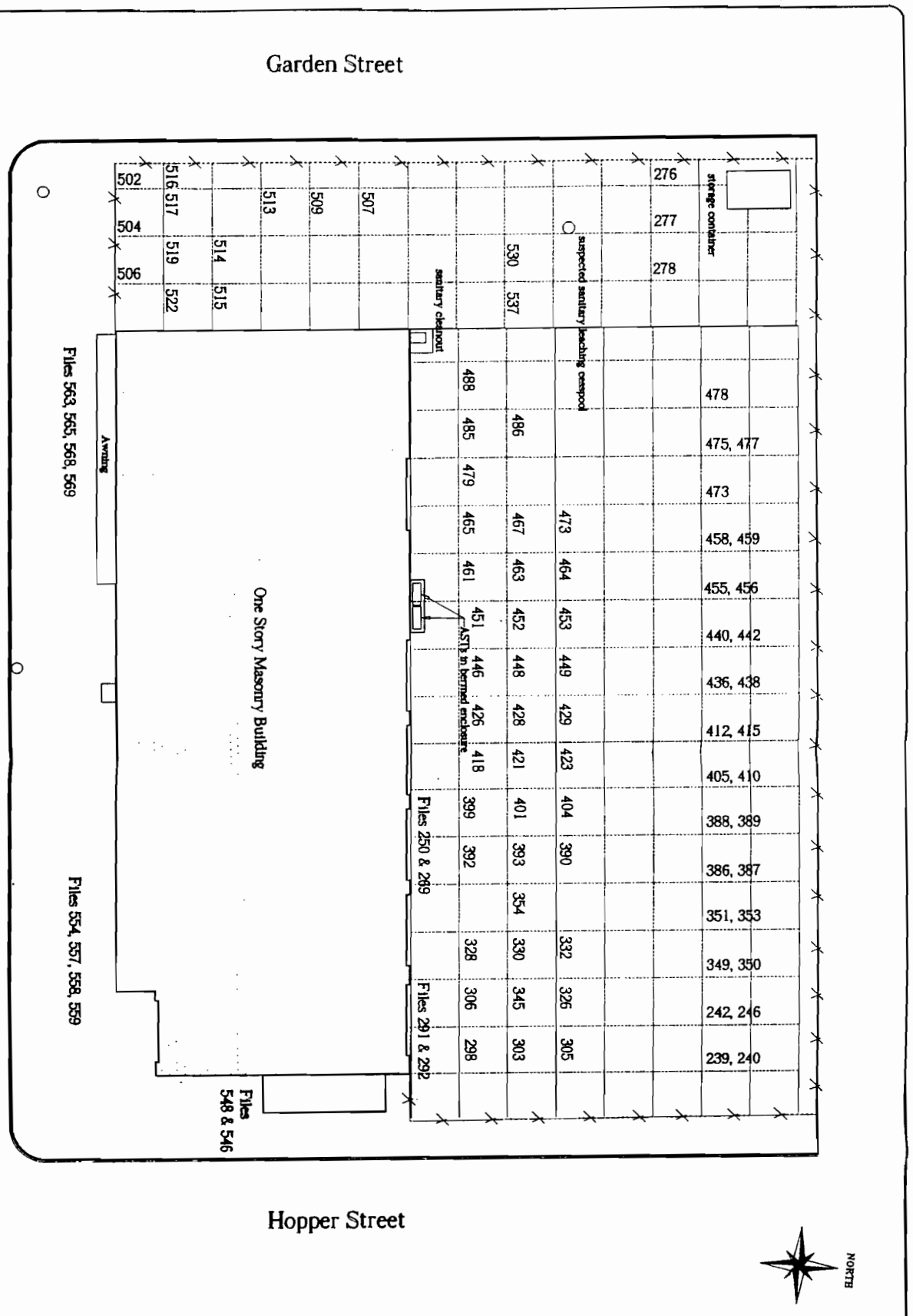
3.1 Remote Survey

A remote survey of the exterior of the subject property was performed during the week of June 21, 1999. An interpretation of GPR imagery obtained from the subject property exhibited three anomalous features consistent with that of underground storage tanks. Another set of anomalous features was identified to be associated with a sanitary waste disposal system. One anomalous feature identified from the scans yielded imagery that could not be interpreted with respect to construction or function. Each of the features is discussed in detail below and mapped on Plate #2: GPR Scan Map, Westbury, New York. References contained within each discussion pertain to GPR image files that are presented in section 4.0 of this report.

Three underground storage tanks (USTs) were located adjacent to the north side of the building (see Scan Files 250, 269 and 345). The orientation of two of the USTs appeared to be such that their long axis ran parallel to the building (east-west). The long axis of the third UST ran perpendicular to the building. Based on the apparent tank dimensions, their individual capacities were estimated at being between one and three-thousand gallons.

The sanitary waste disposal system appeared to include a conduit leading away from a former septic tank in a northwestern direction to a former cesspool (see Scan File 530). Scans performed in the area of the septic tank and cesspool failed to identify an overflow pool(s) for the cesspool. The imagery in these areas exhibited no anomalies, suggesting that the area contains undisturbed fill media (see Scan File 276 and 277). The former cesspool was identified to have been modified to facilitate the connection of the building to the public sewer system.

The unidentified anomaly was situated immediately north of the building near the former fuel dispenser island (see Scan File 291). The feature appears too small to represent a UST. It could represent metallic apparatus associated with the pump system.



Impact Environmental
a division of impact environmental consulting, inc.
1 Village Plaza
Kings Park, New York 11754
516.269.8000 TELEPHONE
516.269.1000 FACSIMILE

98-335

Plate 2: GPR Scan Map

New Cassel, New York

Legend:
- ▲ groundwater probe node
- soil probe node
- monitoring well

scale: 1" = 20'

REDUCED 64%

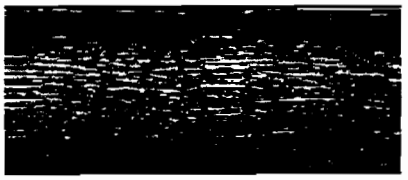
4.0 Presentation of Imagery

The following index identifies the GPR Scan Files and their respective interpretations. Following the index are printed graphic files downloaded from the GPR.

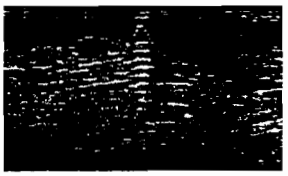
Scan File Code	Interpretation of Image	Reasons for Interpretation
276	No anomalies	No dielectric change
277	No anomalies	No dielectric change
530	Conduit	Parabolic curve, low radius
250	UST	Parabolic curve
269	UST	Parabolic curve
291	Unknown anomaly	-
345	UST	Parabolic curve

File 276

File 277



File 530



File 250

File 269

File 291

File 345

5.0 Evaluation of Results

Five features were identified to exist in the subsurface of the subject property. Each of these features has the potential to impact the environmental quality of the subject property by providing a means for the contamination of saturated and unsaturated subsurface soil with hazardous substances. Therefore, each of these features will have to be further investigated in future Focussed Remedial Investigation/Focussed Feasibility Study activities. Said activities will be proposed in an addendum to the approved Work Plan.

IMPACT ENVIRONMENTAL CONSULTING, INC.

Richard S. Parrish, *P.G., C.E.I.*
Senior Geologist

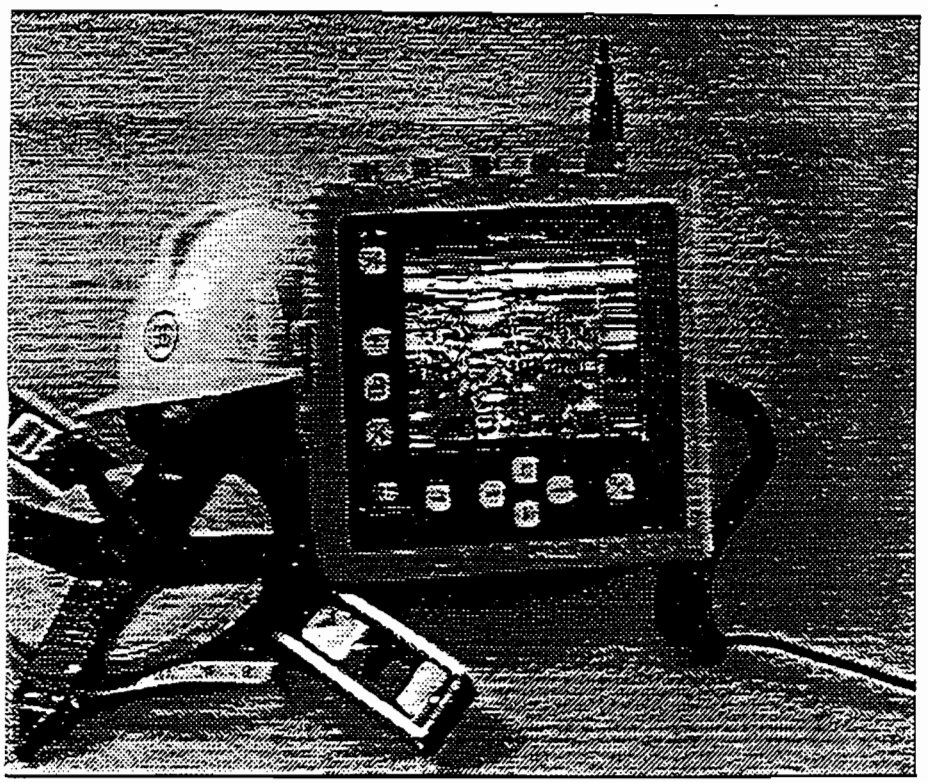
Keith Franzen
Engineer

APPENDIX A

SIR-2 Operation Manual

SIR® SYSTEM-2

OPERATION MANUAL



Rev A - May, 1996

Geophysical Survey Systems, Inc.
13 Klein Drive, P.O. Box 97
North Salem, NH 03073-0097
Phone: (603) 893-1109 / FAX: (603) 889-3984 / E-mail: gssisales@aol.com

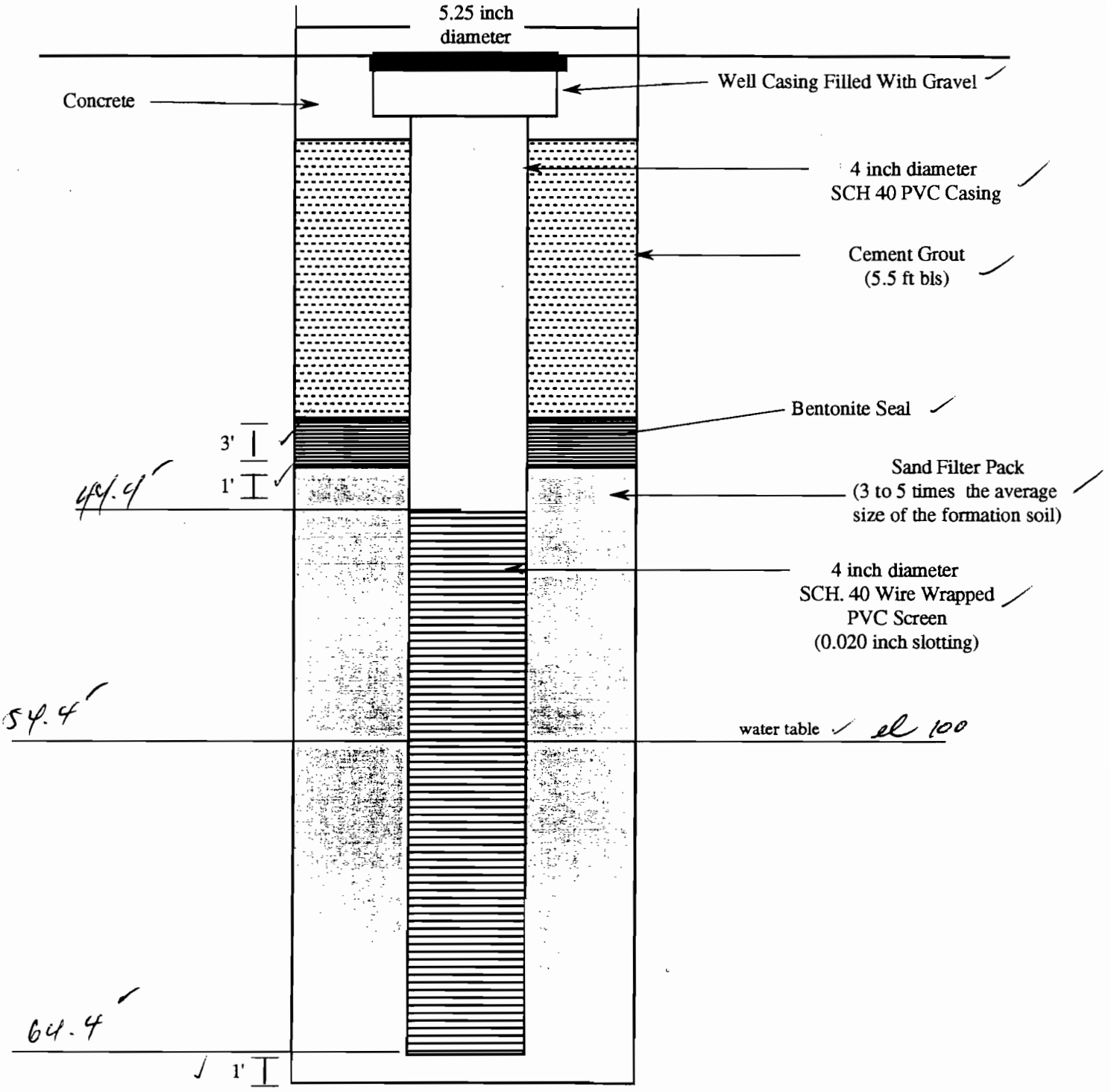
Manual #MNT2-140A

Appendix A.5

WELL LOG

Site Location:	299 MAIN ST., WESTBURY	**Installer:**	KENDALL + MOORE
Job Number:	98-335	**Installation Method:**	Hollow Stem Auger
Client:	IMPACT	**Date Begin/End:**	10/18/99
Client Contact:	L. BLAKELY	**Surface Elevation:**	48.6 (N)
Boring Code:	MW-1	**Depth to Water:**	54.4
Location Description:	NORTHEAST C/O SITE	**Total Depth:**	65.4
Geologist:	L. PATRYLO	**Page #:**	1 OF 1

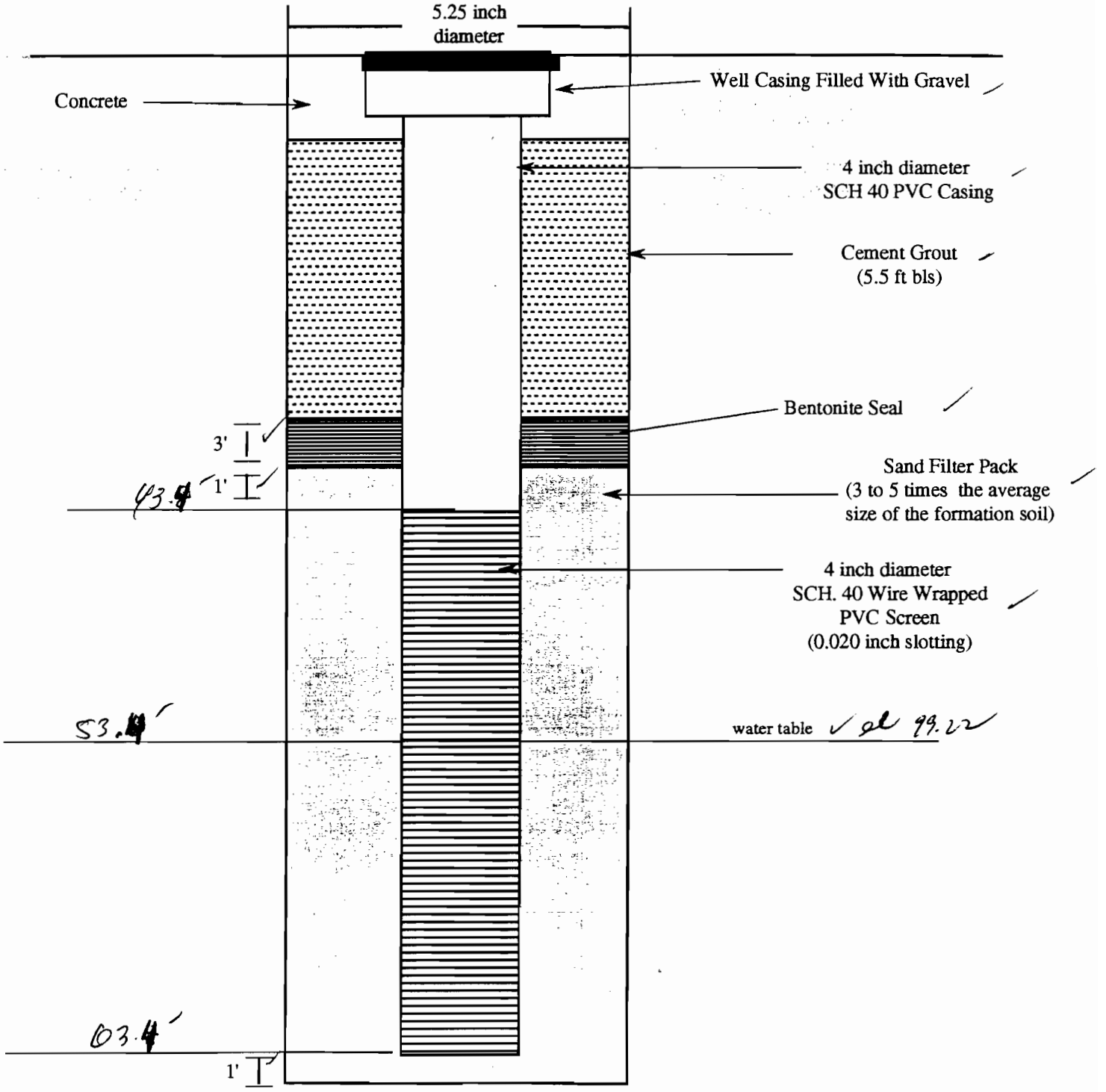
FOUR INCH WELL CONSTRUCTION



WELL LOG

Site Location:	299 MAIN ST., WESTBORO	**Installer:**	Bailey & Nicole
Job Number:	98-335	**Installation Method:**	Hollow stem Auger
Client:	IMPAT	**Date Begin/End:**	10/19/99
Client Contact:	K. Kuehl	**Surface Elevation:**	
Boring Code:	MW-2	**Depth to Water:**	53.4'
Location Description:	Western Boundary of site	**Total Depth:**	64.8'
Geologist:	L. Bonnicut	**Page #:**	1 of 1

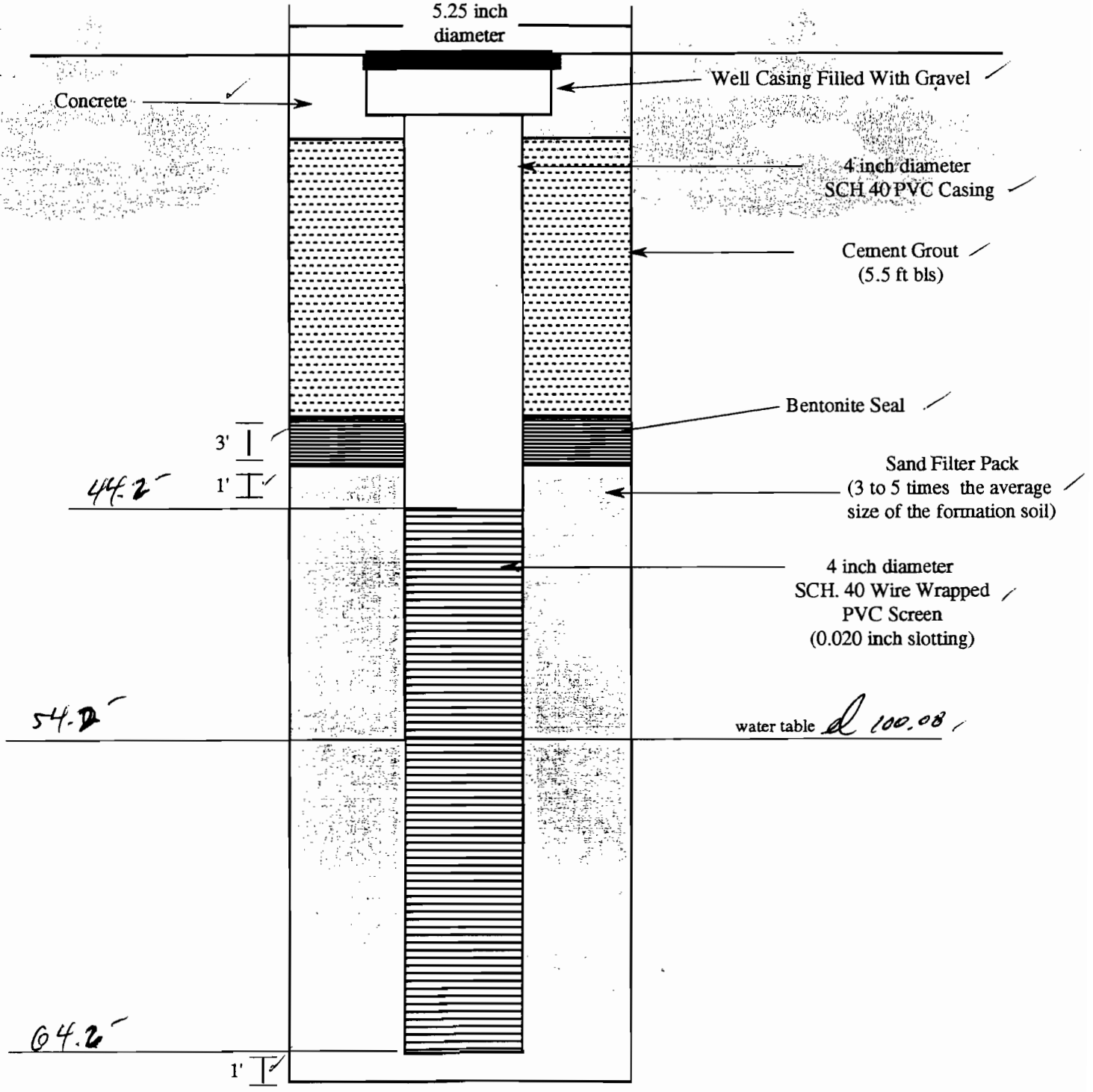
FOUR INCH WELL
CONSTRUCTION



WELL LOG

Site Location:	299 MAIN ST., WESTBURY	**Installer:**	KENNEDY + NICOLE
Job Number:	98-335	**Installation Method:**	HOLLOW STEM AUGER
Client:	IMPACT	**Date Begin/End:**	10/19/99
Client Contact:	R. KLAUSNER	**Surface Elevation:**	4.78' WELLHEAD
Boring Code:	MW-3	**Depth to Water:**	54.2'
Location Description:	SOUTH EAST SIDE LOT	**Total Depth:**	65.6'
Geologist:	R. PARNELL	**Page #:**	1 of 1

FOUR INCH WELL
CONSTRUCTION



Record

National® Brand ACCOUNT BOOKS 9¼ x 7"		
Patina Blue Granite Grain Covers		
Item No.	Pages	Ruling
Item No. 56-301	80	Record
Item No. 56-302	"	2 Column
Item No. 56-303	"	3 Column
Item No. 56-304	"	4 Column
Item No. 56-306	"	6 Column
Item No. 56-308	"	8 Column
Item No. 56-312	"	12 Column

Assorted Colors Granite Grain Covers		
Item No. 56-401	80	Record
Item No. 56-402	"	2 Column
Item No. 56-403	"	3 Column
Item No. 56-404	"	4 Column
Item No. 56-406	"	6 Column
Item No. 56-408	"	8 Column
Item No. 56-412	"	12 Column
Item No. 56-431	"	Single Entry Ledger

AVERY DENNISON — Office Products

Made in USA — Brea, CA

Product Guarantee

Avery is committed to providing you with quality products, and will gladly replace any product which does not provide complete satisfaction. We also welcome your comments and suggestions. Please send your correspondence with product code to:

Avery Division, Consumer Service Center
P.O. Box 129
Brea, CA 92822-0129

9/28/99 Meeting w/ Richard Parrish
11:30am Keith Franzen
(P) Eric Twist
Kevin Kleaka

- Discussion of project specifications + procedures

9/28/99 Utility mark-outs called in for
2:00pm the site
(M) Case Reference # 2710427

28 Sept 99
KP

9/29/99 Arrived on-site at 8am - K. Kloaka
E. Krist
R. Prescish

- Discussed additional materials needs for the project.

9/29/99 Meeting w/ Facility owner: Jim Cardali
641-6614 (cell)
9:01am - schedule ✓ 997-2424 (office)
- sampling location ✓
- designated work areas ✓
Personnel w/ key to gate

: Gene, Jim

Facility Employees:

~~Gene~~ Jean-Charles, Robes
Seymour, Ronald
Romero, Juan ~~Romero~~
Gonzalez, Gerardo

* each employee was briefed on safety issues + procedures.
- employees were made aware of the activities to commence on the property, what to do in case of emergency (egress) and to stay clear of all work areas

Cont Page 3

9:30 Begin establishing grid coordinate system.

1:06pm Completion of grid layout. Including grid soil points, point source soil points, temporary GW points + monitoring well locations.

UST perimeters (x2) were re-marked. Soil UST points were sited adjacent to tanks (x2) near bld. Four soil UST points surrounding as per FRI.

One UST (10,000 gal suspected) was not re-marked due to the marking paint being washed away. A GPR scan may be necessary to re-establish UST location and sampling points.

1:15 Two egress location were marked as "EXIT".
① NE gate → Hopper St.
② NW Bay Door → Main St.

Left site @ 1:15pm

29 Sept 99
EK

Cont Page 4

9/30 @ Arrived on-site at 8:30am. Setup sample table, clean area, disposal area and safety equipement (air horn, fire extinguisher) R. Pritchard, E. Krist, K. Perkins

9am Calibration of PID to a span gas of iso-butylene (100ppm). Ambient air sample secured and failed to detect any response. No additional ambient air samples are recommended today based on PID reading (0.0ppm).

9:10am Commencement of drilling (Geoprobe) on northeastern portion of the site on a soil grid sampling location

9:20am Sample 335-GP-001-5510 was received. (X-Ref pg 1 in Master sample log (MSL)

9:36am Sample 335-GP-001-5515 was received (x-Ref pg-1 in MSL)

10:06 Sample 335-GP-001-5530 was received (x-ref pg-2 in MSL)

10:27 Geoprobe operator, Eric Krist, indicated that the advancement of the probes was greatly reduced @ 40' BEG. No Refusal, but just slow advancement

Cont Page 5

Geoprobe operator sampling methodology for keeping track of probe depth. Operator indicated that he lays out all probe rods appropriate for specific depth, as well as, keeping record in his head of depth advancement.

10:55am Sample 335-GP-001-5545 was received (x-ref pg. 2 in MSL)

11:55am Sample 335-GP-001-5560 was received (x-ref pg. 3 in MSL)

12:20pm Advancement of GW screen to determine gw table elevation (BEG) x-ref pg. 3 in MSL.

1:50pm The gw table was gauged at three different screen depths: 75', 68', 60'

The depth to H_2O @ 75' BEG was 56.1'
The depth to H_2O @ 68' BEG was 55.7'
The depth to H_2O @ 60' BEG was 55.4'

Based on the uncertainty of exact gw table elevation using geoprobe methodology, project manager has recommended that soil samples not be secured beyond 50' until the installation of the monitoring wells (4") has been completed. Upon completion of monitoring well installation, the gw table elevation will be determined and the remaining soil-gw interface samples from the grid and point locations will be secured after this measurement has been established.

Cont Page 6

2:00pm Geoprobe operator has been instructed to move to the next soil grid sampling location (335-GP-002, 50' west of 335-GP-001)

2:08pm Geoprobe in position to begin 002 soil grid location.

2:22 sample 335-GP-002-SS10 was received (x-ref pg 4 in MSL)

2:40pm sample 335-GP-002-SS15 was received (x-ref pg 4 in MSL)

3:04pm sample 335-GP-002-SS30 was received (x-ref pg. 5 in MSL)

3:45pm sample 335-GP-002-SS45 was received (x-ref pg 5 in MSL)

4:02pm Geoprobe in position to begin 003 soil grid location.

4:18pm sample 335-GP-003-SS10 was received (x-ref pg 6 in MSL)

-Left site @ 4:50

30 ~~295~~ Sept 99
KK

End of 9/30/99

10/1 Arrived on-site at 7:30am. Setup sample table, clean area, disposal area and safety equipement

7:37 Calibration of PID to a span gas of iso-butylene @ 100ppm. An ambient air sample was taken and failed to detect a response No additional ambient air samples are recommended today based on the pid reading (0.0ppm) x-ref pg. 3 in site safety log

7:55am Geoprobe in position to continue 335-GP-003

8:36am sample 335-GP-003-SS15 was received. (x-ref. pg. 7 in MSL)

9:04 sample 335-GP-003-SS30 was received. (x-ref. pg 7 in MSL)

9:42 sample 335-GP-003-SS45 was received. (x-ref pg. 8 in MSL)

9:45 Geoprobe in position to begin 004 soil grid location

9:58 sample 335-GP-004-SS10 was received. (x-ref pg. 8 in MSL)

10:15 sample 335-GP-004-SS15 was received. (x-ref pg. 9 in MSL)

10:40 sample 335-GP-004-SS30 was received. (x-ref. pg 9 in MSL)

Cont'd Page 8

11:10am Geoprobe operator has discovered that a bolt has vibrated out of place. Attempts to screw the bolt back in revealed that the threads inside have been damaged. The bolt threads also have been damaged. Therefore, a die and tap kit and/or new bolt are necessary. Leaving site to go to a hardware store for the needed items EK to go to store, KK staying on-site.

12:22 Geoprobe back in operation. The damaged male + female threads have been fixed.

12:36pm Sample 335-GP-004-SS45 was received. (x-ref. pg. 10 in MSL)

12:45pm Inspected the point source sampling location identified as "suspected sanitary leaching cesspool. A determination was made that sampling at this location could not be performed today. Additional materials are necessary to stabalize the probe rods in a large void space (Sch 80 pvc piping). Will bring necessary materials next week.

1:03pm Sample 335-GP-005-SS10 was received. (x-ref. pg. 10 in MSL)

1:13pm Chemtech lab pickup arrived. Joe Skrzyniaiz exchanged coolers + dropped off sample jars. All samples (except 335-GP-005-SS10) have been relinquished to lab personnel. (COC# 28984, 28985, 28986)

Cont Page 9

Custody seal was placed over the cooler dated 10/1/99 by KK. Three pink copies of chain of custodies were left for our record.

1:31pm Sample 335-GP-005-SS15 was received. (x-ref. pg. 11 in MSL)

1:35 Project manager arrived on-site. Discussion of specific issues regarding sample locations, monitoring well locations, what the samples have looked like. Proposed to translate the MW on the NE c/o site to inside the fenced area to avoid having to remove trees (overhead obstruction). Also, proposed to translate the MW on the SE c/o site approx 10-15 feet north to avoid other overhead obstructions (power lines). Proposed an additional point source sampling location on the E side of site (in a MW). PM left site at 2:05pm.

2:00 Sample 335-GP-005-SS30 was received. (x-ref pg 11 in MSL)

2:10 Note: A trip blank and temp sample were not included in the 1:13 pm pickup (inadvertently).

2:35 Sample 335-GP-005-SS45 was received. (x-ref pg. 12 in MSL)

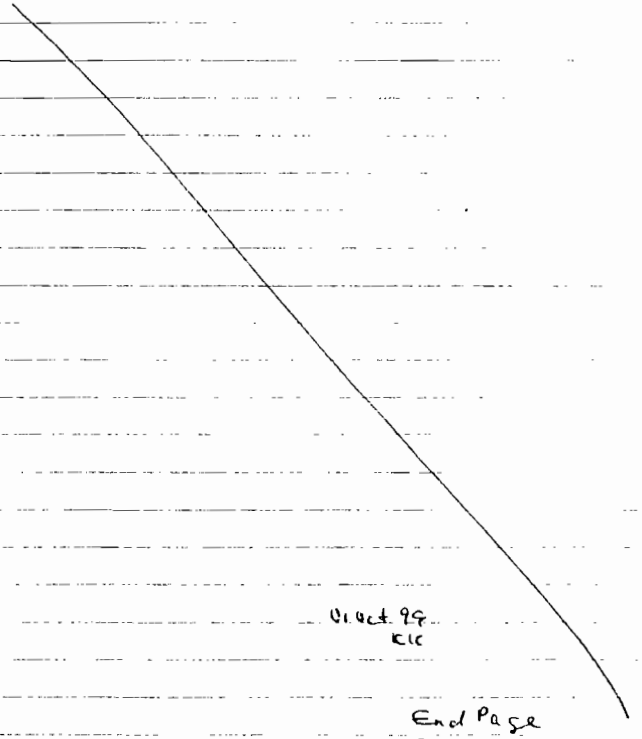
3:00 Sample 335-GP-006-SS10 was received. (x-ref. pg. 12 in MSL)

Cont Page 10

3:16pm Sample 335-GP-006-SS15 received.
(x-ref pg 13 in MSL)

3:30 Sample acquisition finished for the day.
Decon sampling equipement + breakdown designated areas.

4:00pm Leave site



Oct 99
KLC

End Page
for 10/99

10/4/99 Impact personnel on-site at 8:50am. Set up designated areas. Weather delays (heavy rain, lightning) prohibited field work until ~ 11:30am. However, it should be noted that the geoprobe operator was able to advance probes in location 006 within that time frame. @ KEVIN KLEAKA, R. PARRISH

11:27am sample 335-GP-006-SS30 was secured.
(x-ref. p. 14 in MSL)

12:11pm Sample 335-GP-006-SS45 was secured.
(x-ref. p14 in MSL)

1:12pm Sample 335-GP-~~006~~ 007-SS10 was secured.
(x-ref. p 15 in MSL)

1:50pm sample 335-GP-007-SS15 was secured.
(x-ref. p 15 in MSL)

2:36 Sample 335-GP-007-SS30 was received
(x-ref. p 16 in MSL)

2:40 R Parrish off-site @

3:24pm Sample 335-GP-007-SS45 was received.
(x-ref. p. 16 in MSL)

3:45pm Geoprobe in position for 008 soil grid location.

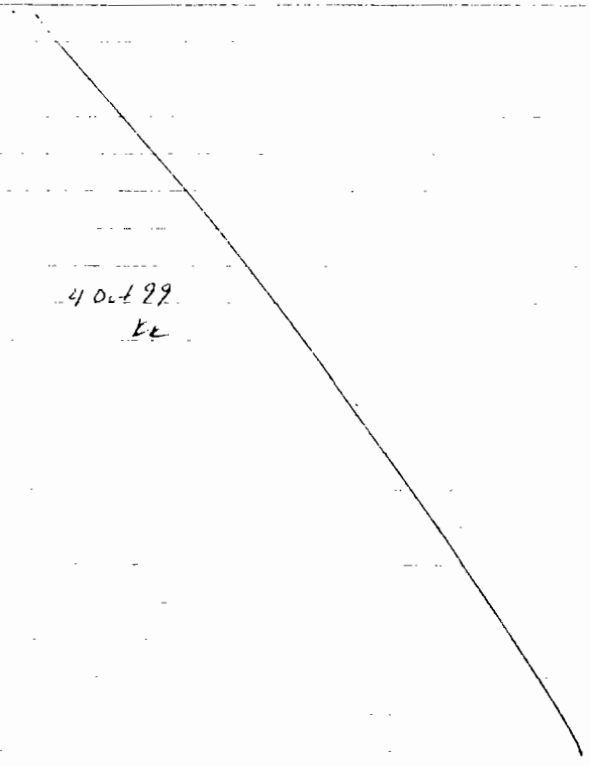
3:57pm Sample 335-GP-008-SS10 was received.
(x-ref. p. 17 in MSL)

4:12pm Sample 335-GP-008-SS15 was received.
(x-ref p. 17 in MSL)

Cont'd Page 12

1:35 Clean up areas, breakdown

1:50 Left site.



4 Oct 99
KK

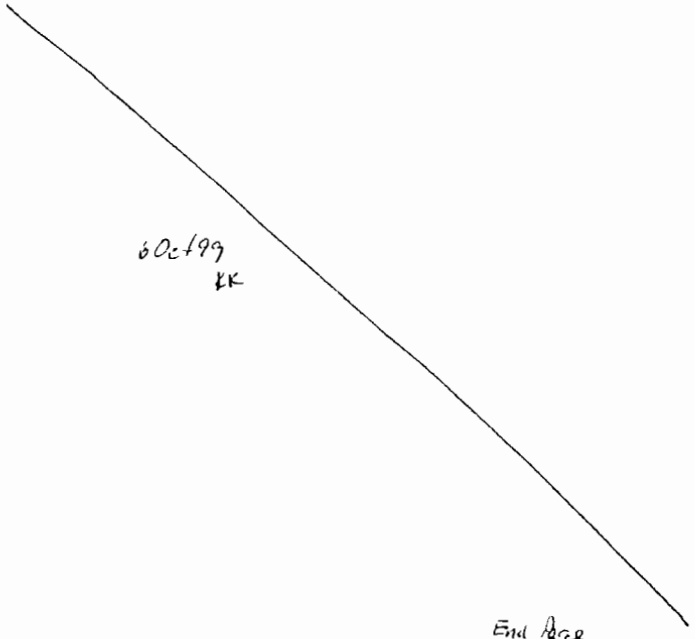
End Page

10/6/99

1:45 Samples were picked up by lab personnel (Joe Skrzyniarz w/ Chemtech)

005 - SS10, SS15, SS30, SS45
006 - SS10, SS15, SS30, SS45
007 - SS10, SS15, SS30, SS45
008 - SS10, SS15
Trip Blank

} samples relinquished COC # 28987 + 28988



6 Oct 99
KK

End Page

10/12/99

8:50am Arrived at site. Security guard on-site. For remainder of project, security will be present (when we are present) to provide access in/out of gate and provide security of site. R. Parrott, K. Keech & Krist

Security guard: McDermott, Charles
Company name: Formost Consultants

8:55am Geoprobe in position to begin drilling at location 008 to obtain SS30

9am PID calibration (100ppm isobutylene), ambient air sample secured. (x-ref p. 5 in Safety log)

9:05 Geoprobe operator (Eric Krist) begins

9:32 Sample 335-GP-008-SS30 was received. (x-ref pg. 18 in MSL)

10:16am Sample 335-GP-008-SS45 was received. (x-ref pg 18 in MSL)

10:50am Geoprobe hitting concrete @ location 009 @ ~4' BEG. Probe eventually pushed through it. Soil was very soft down to ten'. (could push it down manually).

Cont Page 15

11:00am Sample 335-GP-009-SS10 was received. It is suspected that this grid sampling location is actually a point source location (drywell). (x-ref pg. 19 in MSL).

Note. Due to poor sample recovery, SS10 is being collected again. (only one sample description will be referenced)

11:30am Sample 335-GP-009 SS30 was received. (x-ref. pg. 20 in MSL)

12:30pm Sample 335-GP-009-SS45 was received. (x-ref pg 20 in MSL)

@ R, P OFF-SITE

12:50pm Lunch break

1:30pm Returned from lunch

1:40pm Geoprobe in position for location 010

2:06pm Sample 335-GP-010-SS15 was received (x-ref p. 21 in MSL)

2:39pm Sample 335-GP-010-SS30 was received. (x-ref. p. 21 in MSL)

3:21pm Sample 335-GP-010-SS45 was received. (x-ref. pg. 22 in MSL)

Cont Page 16

3[30] Informed tenant that we would be sampling inside on 10/13/99.

3[37] Brake down designated areas.

3[41] Left site.

End Page
10/12/99
KK

10/13/99

7[30]am Arrived on-site. Setup designated work areas, performed PID calibration (x-ref pg. 6 in SL).

7[42]am Geoprobe in position for interior point source sampling location 335-GP-011.

8[12]am sample 335-GP-011-SS15 was received. (x-ref. pg. 23 in MSL)

8[46]am sample 335-GP-011-SS30 was received. (x-ref. pg. 23 in MSL)

9[18]am sample 335-GP-011-SS45 was received. However, due to poor recovery, the operator was instructed to redo this interval.

9[58]am sample 335-GP-011-SS45 was received. (x-ref. pg. 24 in MSL)

11[32]am Geoprobe in position for point source sampling location 335-GP-012

12[02]pm sample 335-GP-012-SS15 was received. (x-ref. pg. 24 in MSL)

12[15]pm Lunch break

Cont'd Page 18

1[00] pm Returned from lunch, Geoprobe in position to complete 335-GP-012

1[35] pm Geoprobe operator indicating that he is having mechanical difficulties w/ his sampling apparatus.

2[38] pm sample 335-GP-012-SS30 was received (x-ref. pg 25 in MSL)

3[30] pm sample 335-GP-012-SS45 was received (x-ref. pg. 25 in MSL)

4[1K] Left site.

End Page
10/13/99
RC

10/14/99

9[00] am Geoprobe in position for UST sampling location 335-GP-013.

9[05] am Setup designated work areas, performed PID calibration (x-ref. pg. 7 in SL)

9[15] am sample 335-GP-013-SS8 was received (x-ref. pg. 26 in MSL)

9[55] am sample 335-GP-013-SS12 was received. (x-ref. pg. 26 in MSL)

10[13] am sample 335-GP-014-SS8 was received. (x-ref. pg. 27 in MSL)

10[31] am sample 335-GP-014-SS12 was received. (x-ref. pg. 27 in MSL)

10[50] am sample 335-GP-015-SS8 was received. (x-ref. pg. 28 in MSL)

11[00] am sample 335-GP-015-SS12 was received. (x-ref. pg. 28 in MSL)

11[55] am sample 335-GP-016-SS8 was received. (x-ref. pg. 29 in MSL)

12[10] pm sample 335-GP-016-SS12 was received. (x-ref. pg. 29 in MSL)

Cont Page 20

12[50] pm sample 335-GP-017-SS8 was received.
(x-ref. pg. 30 in MSL)

1[15] pm sample 335-GP-017-SS12 was received.
(x-ref. pg. 30 in MSL)

2[16] pm sample 335-GP-018-SS8 was received
(x-ref. pg. 31 in MSL)

2[36] pm sample 335-GP-018-SS12 was received.
(x-ref. pg. 31 in MSL).

2[56] pm sample 335-GP-019-SS8 was received.
(x-ref. pg. 32 in MSL)

3[10] pm sample 335-GP-019-SS12 was received.
(x-ref. pg. 32 in MSL)

3[20] pm sample 335-GP-020-SS8 was received.
(x-ref. pg. 33 in MSL)

3[40] pm sample 335-GP-020-SS12 was received.
(x-ref. pg. 33 in MSL)

* Note: documentation is not in chronological order
(sample numbers were designated before registration
for the UST w/rs.)

4[15] pm Departed from site.

End Page
10/19/99 KK

(A)

10/18/99.

8[30] am Arrived on-site. Setup designated work areas. Performed PID calibration + secured ambient air sample (x-ref. pg. 8 in SL). R. Pannell, K. Keenan, E. Krist.

9:05 Fenley & Nicol arrived w/ rig / supply truck. Informed the two operators of the health & safety plan in effect.

9:30 Began drilling monitoring well on NE corner of site.

10[40] am A seal broke on rig, apparently a line was pinched. F&N called for another drill rig to arrive to site.

10:55 R. Pannell OFF-SITE

12[10] pm Replacement rig arrived.

12[18] pm Resumed work again (Left off @ 50' BEG)

12[32] Confirm materials used for well: 20' screen
40' riser
filtration sand / fine grain
bentonite
grout

3[55] pm Installation of monitoring well complete. Depth to water is 54.5' BEG

4[30] pm Left site.

End Page
10/18/99
KK

12/19/99

7[35] am Arrived on-site. Setup designated work areas. performed PID calibration + secured ambient air sample (see ref pg. 9 in S4)

8[00] am gauged MW for DTW (54.5' BEG)

8[20] am F&N arrived on-site

8[35] am Rig in in place to begin drilling monitoring well on SW portion of site

8[45] am Geoprobe in position to begin drilling @ gw sampling location 335-GP-021-GW01

9[36] am sample 335-GP-021-GW01 was received.

11[01] am sample 335-GP-022-GW01 was received

12[13] pm F&N finishing monitoring well @ SW corner of site.

12[32] pm F&N position for monitoring well @ SE c/o site.

12[46] pm Sample 335-GP-023-GW01 was received

~~1[10] pm Geo~~ LK

2[45] sample 335-GP-024-GW01 was received.

3[30] Left site

10/20/99

8[00] am Arrived on-site. Raining very hard. Did not setup designated work areas due to the heavy rain. Performed PID calibration + ambient (refer to pg 9 in S4)

5[10] Geoprobe in position to drill at GW location 026. GW point inside bldg. needs to be completed another day due to tenant activity. (025)

9[06] am sample 335-GP-026-GW01 was secured.

10[34] am sample 335-GP-027-GW01 was secured

12[05] pm sample 335-GP-028-GW01 was secured.

1[04] pm Lunch Break (Re-fueled also)

1[26] pm Returned from break

~2[10] pm Anna Reupp of the NYSDEC arrived on-site. Inquired into how the advancement of the geoprobes into the subsurface was and how much longer we think we would be on-site for sampling activities.

~2[25] Anna Reupp left site

2[56] pm sample 335-GP-029-GW01 was secured.

3[35] pm Left site

End Page
10/20/99
LK

10/21/99

7:30 am Arrived on-site. Set up designated work areas. Performed PID calibration & secured ambient air sample (see f-pg-11 in SC).

7:40 am Geoprobe in position to begin drilling at 1 GW location 335-GP-030-GW01.

9:11 am sample 335-GP-030-GW01 was secured.

10:24 am sample 335-GP-031-GW01 was secured

12:05 pm Sample 335-GP-032-GW01 was secured.

1:26 pm Sample 335-GP-033-GW01 was secured.

3:00 pm Sample 335-GP-034-GW01 was secured, left site.

End Page
10/21/99
KK

10/22/99

7:30 am Arrived on-site. Set up designated work areas. Performed PID calibration, secured ambient air sample (see f-pg 12 in SC) R. Russell, K. KEARNS, & KRUST.

9:00 am Geoprobe in position to begin drilling 335-GP-035 GW location

9:10 am sample 335-GP-035-GW01 was secured

10:31 am sample 335-GP-036-GW01 was secured

11:57 sample 335-GP-037-GW01 was secured

1:10 pm sample 335-GP-025-GW01 was secured

2:00 pm left site.

End Page
10/22/99
KK

2.0

10/28/99

1130 Arrived on-site.

1240 Developed on-site monitoring wells using 4" disc pvc bailer. Decon between each well. Sampling wells using dedicated (disposable) plastic bailers.

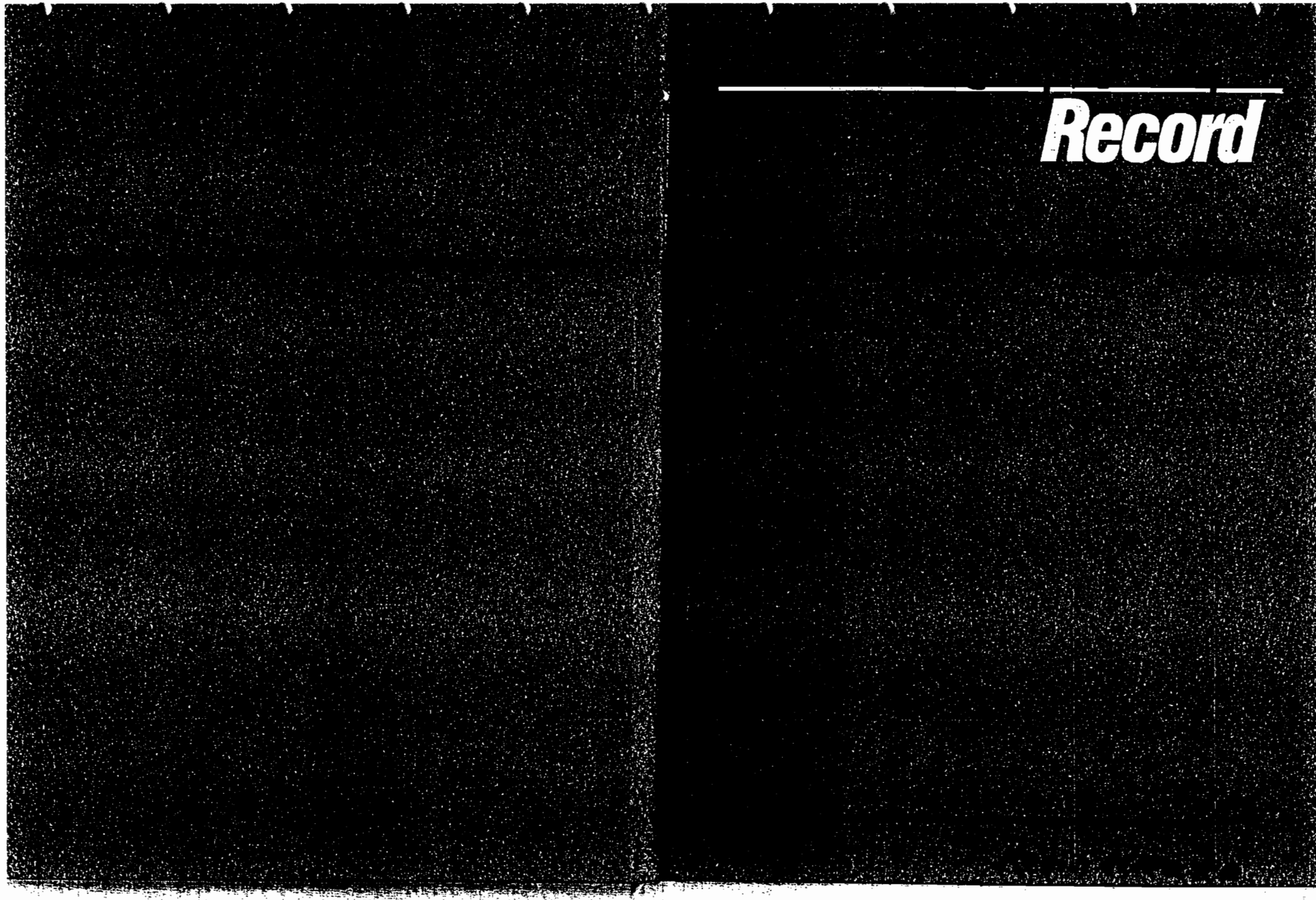
1405 MW-1 (Northeast c/o site): GW depth 54.4' sample 335-MW-1-GW01 secured

1425 MW-2 (Western side of bld): GW depth 53.8'

1355 MW-3 (South Eastern c/o site) GW depth 54.6'

* Note: depth to water was measured relative to the N side of casing (pvc).

El Paso
10/28/99
FIC


Record

National® Brand ACCOUNT BOOKS 9¼ x 7"		
Patina Blue Granite Grain Covers		
Item No.	Pages	Ruling
Item No. 58-301	80	Record
Item No. 58-302	"	2 Column
Item No. 58-303	"	3 Column
Item No. 58-304	"	4 Column
Item No. 58-306	"	6 Column
Item No. 58-308	"	8 Column
Item No. 58-312	"	12 Column

Assorted Colors Granite Grain Covers		
Item No. 58-401	80	Record
Item No. 58-402	"	2 Column
Item No. 58-403	"	3 Column
Item No. 58-404	"	4 Column
Item No. 58-406	"	6 Column
Item No. 58-408	"	8 Column
Item No. 58-412	"	12 Column
Item No. 58-431	"	Single Entry Ledger

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9/30 Rain in the AM, currently cloudy, no rain

9:20AM Sample id: 335-GP-001-5510
Sample location: NE c/o Site
sample depth interval: 10'-12' BEG
Sampler: Eric Krist (EK)
Sample description:
Brown 7.5 yR 5/4
well graded (GW) gravel - sand mixture, little or no fines
no odor
PID Reading: 0.0 ppm
* packaged @ 9:47 am by (KK)

9:36AM sample id: 335-GP-001-5515
Sample location: NE c/o site
Sample depth interval: 15'-17' BEG
Sampler: EK
Sample description:
- Brown 7.5 yR 5/4
- well graded gravel - sand mixture, little or no fines (quartz ~~cobbles~~ gravel)
- no odor
- PID Reading: 0.0 ppm
* packaged @ 9:57 by KK

9:58 Clouds clearing, giving way to sunshine.

Cont Page 2

9/30

10:07 Sample id: 335-GP-001-SS30
Sample location: NE c/o site
sample depth interval: 30'-32' BEG
sampler: EK
Sample description:
- yellowish brown 10YR 5/8
- poorly-graded gravels (GP) - sand - gravel mixtures, little or no fines (more homogeneous than previous depth interval), no odor
- PID Reading: 0.0 ppm
- packaged @ 10:16 am by KK

10:55 Sample id: 335-GP-001-SS45
Sample location: NE c/o site
Sample depth interval 45'-47' BEG
Sample: EK
Sample description:
- very pale brown 10YR 8/2
- SM silty sands, sand - silt mixture
- PID Reading: 0.0 ppm
- no odor
- poor sample recovery
- packaged @ 11:00 am by KK

30 Sept. 99
KK

Cont Page 3

9/30

11:55am Sample id 335-GP-001-SS60
Sample location: NE c/o site
Sample depth interval: 60'-62' BEG
Sampler: EK
Sample description:
- light yellowish brown 10YR 6/4
- (SP) poorly-graded sands - medium gravely sands, no fines
- PID Reading: 6.1 ppm
- Sample was moist (not saturated).
- no odor
- good sample recovery
- packaged @ 12:05 am by KK

12:20pm Due to the previous sample being moist, a gw probe is to be advanced before acquisition of the interface sample. GW screen point SP 15 will be used in conjunction w/ a water level indicator to establish gw table (ISE6) elevation. GW screen + apparatus is being decontaminated using alconox before installation into subsurface.

30 Sept 99
KK

Cont Page 4

2:22 Sample id: 335-GP-002-SS10
Sample location: N portion of site
Sample depth interval: 10'-12' BEG
Samples: EK
Sample description:
brown 7.5YR 4/4
(GP) Poorly graded gravels, gravel-sand mixtures, little or no fines (quartz ~~cobbles~~ gravel) 4.8-fimm
no odor
PID Reading 0.0
* packaged @ 2:29 by KK

2:40 Sample id: 335-GP-002-SS15
Sample location: Northern portion of site
Sample depth interval: 15'-17' BEG
Samples: EK
Sample descriptions:
light brown 7.5YR 4/4
(GP) Poorly graded gravels, gravel-sand mixtures, little or no fines
quartz and smoky quartz ~~cobbles~~ gravel (4.8-fimm)
No odor
PID Reading 0.0
* packaged @ 2:48 by KK

30 Asephor KK

Cont Page 5

3:04pm Sample id: 335-GP-002-SS30
Sample location: N portion of site
Sample depth interval: 30'-32' BEG
Samples: EK
Sample description:
very pale brown 10YR 7/4
(GP) poorly graded sands (medium), little or no fines (no cobbles) or gravel
slight chemical odor (
PID Reading: 2.5 ppm
* packaged @ 3:13 by KK

3:45pm Sample id: 335-GP-002-SS45
Sample location: N portion of site
Sample depth interval: 45'-47' BEG
Samples: EK
Sample description:
very pale brown 10YR 8/2 w/ traces of brown 10YR 4/3
(SP) poorly graded sands (medium), little fines (no cobble) gravel
No odor
PID Reading 0.0
* packaged @ 3:55 by KK

30 KK-24 Spoon/SS KK

Cont Page 6

4:10pm Sample id: 335-GP-003-SS10
Sample location: N portion of site
Sample depth interval: 10'-12' BEG
Sampler: EK
Sample description:
brown 7.5 YR 4/4
(GP) Poorly-graded gravels, gravel-sand mixtures, little fines
(quartz ~~cobble~~ gravel) 4.8-19mm
No odor
PID Reading: 0.0 ppm
* packaged @ 4:25 by KK

30
KK 29 Sept 99
KK

End of 9/30/99

10/1/99

8AM Clear skies, sunny, slight breeze, brisk temperature.

8:30AM sample id: 335-GP-003-SS15
Sample location: N portion of site (center-west)
Sample depth interval: 15'-17' BEG
sampler: EK
Sample description:
brown 7.5YR 4/4
(GP) poorly-graded gravels,
gravel-sand mixtures, no fines
quartz ~~cobble~~ gravel KK (~~75-300~~ 4.8-19 mm)
no odor
PID Reading: 0.0
* packaged at 8:44am by KK

9:04am sample id: 335-GP-003-SS30
Sample location: N portion of site (c-w)
Sample depth interval: 30'-32' BEG
sampler: EK
sample description:
very pale brown 10YR 7/4 w/ traces of yellowish brown 10YR 5/6
(SP) Poorly-graded sands, medium sands, little or no fines
no odor
PID Reading: 0.0
* packaged at 9:16 by KK

Cont Page 8

9:45am Sample id: 335-GP-003-SS45
Sample location: N portion of site (c-w)
Sample depth interval 45'-47' BEG
Sampler: EK
Sample description:
very pale brown 10yR 8/3
(SP) Poorly ~~sorted~~ graded sands
(medium) sands, little fines
no odor
PID Reading: 0.0ppm
* packaged at 9:50am by KK

9:58am Sample id: 335-GP-004-SS10
Sample location NW c/o site
Sample depth interval: 10'-12' BEG
Sampler: EK
Sample description:
yellowish brown 10YR 5/8
(GP) Poorly-graded gravels,
gravel-sand mixtures, no fines
(quartz, smoky quartz ~~cobble~~ gravel)
4.8-19mm
no odor
PID Reading: 0.0 ppm
* packaged at 10:13am by KK

Cont Page 9

10:15 Sample id: 335-GP-004-SS15
Sample location: NW c/o site
Sample depth interval: 15'-17' BEG
Sampler: EK
Sample description:
dark yellowish brown 10YR 4/6
(GP) Poorly-graded gravels, gravel-sand mixtures, no fines
Fine to coarse quartz gravel
(4.8-75mm)
no odor
PID Reading: 0.0ppm
* packaged at 10:24am by KK

10:40am Sample id: 335-GP-004-SS30
Sample location: NW c/o site
Sample depth interval: 30'-32' BEG
Sampler: EK
Sample description:
Very pale brown 10 yR 8/4
(SP) Poorly-graded sands,
gravelly sands (medium)
No fines
no odor
PID Reading: 0.0ppm
* packaged at 10:51am by KK

Cont Page 10

12:36pm Sample id: 335-GP-004-SS45
Sample location: NW c/o site
Sample depth interval: 45'-47' BEG
Sampler: EK
Sample description:
very pale brown 10yR 8/4
(SP) Poorly-graded sands,
gravell sands (fine-medium)
no odors
PID Reading: 0.0ppm
*packaged at 12:52pm by KK

1:03pm Sample id: 335-GP-005-SS10
Sample location: NW c/o building
Sample depth interval: 10'-12' BEG
Sampler: EK
Sample description:
brown 10yR 4/3
(GP) Poorly-graded gravels,
gravel-sand mixtures
coarse gravel-quartz ~25mm
medium sand 0.43-2.0mm
no odors
PID Reading: 0.0ppm
* packaged at 1:28 by KK

Cont Page 11

1:31pm Sample id: 335-GP-005-SS15
Sample location: NW c/o bld.
Sample depth interval: 15'-17' BEG
Sampler: EK
sample description:
brown 7.5yR 5/4
(GP) Poorly-graded gravels,
gravel-sand mixtures
coarse (~25mm) quartz gravel
medium-coarse sand (0.43-4.8mm)
dull odor
PID Reading: 204ppm
* packaged a 2:14pm by KK

2:06pm Sample id: 335-GP-005-SS~~15~~30 EK
sample location: NW c/o bld.
sample depth interval: 30'-32' BEG
Sampler: EK
Sample description:
very pale brown 10yR 8/4
(SP) Poorly-graded sands,
Fine to medium sand (0.43-2.0mm)
no odor
PID Reading: 0.0ppm
* packaged at 2:24pm

Con't Page 12

2:44pm sample id: 335-GP-005-SS45
Sample location: NW c/o bld.
Sample depth interval: 45'-47' BEG
sampler: EK
Sample description:
brownish yellow 10YR 6/8
(SP) Poorly-graded sands, gravelly sands, no fines
Fine gravel (~1mm)
medium sand (~1.0mm)
no odors
PID Reading: 0.0ppm
* packaged at 2:51 by KK

Sample id: 335-GP-006-SS10
sample location: W side of bld.
sample depth interval: 10'-12' BEG
sampler: EK
sample description
yellowish brown 10YR 5/4
(GP) Poorly-graded gravels, gravel-sand mixtures. No fines
Fine gravel: quartz (~15mm)
Medium sand (~1mm)
no odors
PID Reading: 0.0ppm
* packaged at 3:10pm by KK

Con't page 13

3:16pm sample id: 335-GP-006-SS15
sample location: W side of bld.
sample depth interval: 15'-17' BEG
sampler: EK
Sample description:

yellowish brown 10YR 5/8
(GP) Poorly-graded gravels, gravel-sand mixtures.
No fines
Fine gravel-quartz (~19mm)
medium sand (~1mm)
no odors
PID Reading: 0.0ppm
* packaged at 3:22pm by KK

01 Oct 99
KK

End Page
KK 10/1/99

10/4/99 Rain, lightning in am. Rain let up late morning, continued cloudiness.

11:27am sample id: 335-GP-006-SS30
sample location: W side of bld.
sample depth interval: 30'-32' BEG
sampler: EK
Sample description:
brownish yellow 10YR 6/6
(SP) Poorly-graded sands, gravelly sands, no fines (medium sand)
Slight chemical odor
PID Reading: 0.0ppm
* packaged at 2:54pm by KK

12:11pm sample id: 335-GP-006-SS45
Sample location: W side of bld.
sample depth interval: 45'-47' BEG
Sampler: EK
sample description:
very pale brown 10YR 8/4
(SP) Poorly-graded sands, gravelly sands
(medium sand)
no odor
PID Reading: 0.0ppm
* packaged at 3:10 by KK

Cont Page 15

11:2pm sample id: 335-GP-007-SS10
Sample location: N of bld. (western bay)
Sample depth interval: 10'-12' BEG
Sampler: EK
Sample description:
brownish yellow 10YR 6/6
(GP) Poorly-graded gravels, gravel-sand mixture, little fine fines
Fine gravel (4.8-19mm)
medium sand (~1mm)
no odors
PID Reading: 0.0ppm
* packaged at 3:27 by KK

1:50pm sample id: 335-GP-007-SS15
Sample location: N of bld. (W. bay)
sample depth interval: 15'-17' BEG
Sampler: EK
Sample description:
yellowish brown 10YR 5/4
(GP) Poorly-graded gravels, gravel-sand mixture
Fine to coarse gravel (4.8-25mm)
medium sand (~1mm)
no odors
PID Reading: 0.0ppm
* packaged at 3:40pm by KK

2:36 pm sample id: 335-GP-007-SS30
Sample location: N of bld. (W-bay)
sample depth interval: 30'-32' BEG
Sampler: EK
Sample description:
very pale brown 10yR 8/4
(SP) Poorly-graded sands,
fine - medium sand (0.43-2mm)
no odor
PID Reading: 0.0ppm
* packaged at 3:49 pm by KK

3:24 pm sample id: 335-GP-007-SS45
Sample location: N side of bld (W-Bay)
sample depth interval: 45'-47' BEG
Sampler: EK
sample description:
very pale brown 10yR 8/4
(SP) Poorly-graded sands,
fine - medium sand (0.43-2 mm)
no odor
PID Reading: 0.0ppm
* packaged at 4:03 by KK

Cont/ Page 17

3:57 pm sample id: 335-GP-008-SS10
sample location: N of bld. (center)
sample depth interval: 10'-12' BEG
Sampler: EK
sample description:
yellowish brown 10yR 5/4
(GP) Poorly-graded gravels,
gravel-sand mixtures
Little fines
Fine gravel (~5mm)
fine - medium sand
Strong chemical odors (petroleum)
PID Reading: 955 ppm
* packaged at 4:18 pm by KK

4:12 pm sample id: 335-GP-008-SS15
sample location N of bld. (center bay)
sample depth interval: 15'-17' BEG
sampler: EK
sample description:
yellowish brown 10 yR 5/4
(GP) Poorly-graded gravels,
gravel-sand mixtures, little fines
Fine gravel (~5mm)
fine - medium sand
Strong chemical odors (petroleum)
PID Reading: 2,000+
* packaged at 4:30 pm by KK

End 10/4/99
KK

10/12/99 sample id: 335-GP-008-SS30
9:40am sample location: N of bld. (center bay)
sample depth interval: 30'-32' BEG
sampler: EK
sample description:
very pale brown 10YR 7/4
(SP) Poorly-graded sands,
fine to medium sand (~1mm)
no odor
PID Reading: 82.5 ppm
* packaged @ 9:40am by KK

10:17am sample id: 335-GP-008-SS45
sample location: N of bld. (center bay)
sample depth interval: 45'-47' BEG
sampler: EK
sample description:
light brown 7.5YR 6/4
(SP) Poorly-graded sands,
fine to medium sand (~1mm)
strong odor
PID Reading: 2,000+
* packaged @ 10:23am by KK

Cont Page 19

11:5am sample id: 335-GP-009-SS10
sample location: ~15' N of bld. (East Bay)
sample depth interval: 10'-18' BEG
sampler: EK
sample description:
Black 1 For Grey 2.6/2.5
(GP) Poorly-graded gravels,
gravel-sand mixture
fine gravel (~5mm)
medium sand (~1mm)
strong odors / staining
PID Reading 2,000+

comments: Due to the poor sample recovery, the sample depth interval was extended to 18' BEG. Therefore, the SS15 sample was included in the SS10 sample.

* packaged @ 11:34am by KK

Cont Page 20

11:50 am sample id: 335-GP-009-SS30
sample location: ~15' N of bld (East Bay)
sample depth interval: 30'-32' BEG
sampler: EK
sample description:
very pale brown 10YR 7/4
(SP) Poorly-graded sands,
fine to medium sand (~1mm)
trace gravel
strong odor
PID Reading 2,000+ ppm
* packaged @ 11:56 am by KK

12:30 pm sample id: 335-GP-009-SS45
sample location: ~15' N of bld (East bay)
sample depth interval: 45'-47' BEG
sampler: EK
sample description:
very pale brown 10YR 7/4
(SP) Poorly-graded sands
fine to medium sand (~1mm)
no ~~strong~~ KK odor
PID Reading: ~~2,000+ KK~~ 0.0 ppm
* packaged @ 12:40 by KK

Weather Update: clear skies, hot sun, warm, no breeze

Cont Page 21

2:06 pm sample id: 335-GP-~~009~~ KK 010-SS15
sample location: NW of site (sanitary cesspool)
sample depth interval: 15'-17' BEG
sampler: EK
sample description:
black Grey 2.5/2.5
high organic matter content
(GP) Poorly-graded gravels,
gravel-sand mixture
fine gravel (~5mm)
medium sand (~1mm)
septic odor
PID Reading: 496 ppm
* packaged @ 2:13 by KK
comments. sample appeared moist (from sanitary)
PID reading might be skewed due to methane degassing.

2:39 pm sample id: 335-GP-010-SS30
sample location: NW of site (sanitary cesspool)
Sample depth interval: 30'-32' BEG
sampler: EK
sample description
brownish yellow 10YR 6/6
(SP) Poorly-graded sands
medium sand (~1mm)
no odor
PID Reading: 0.0 ppm
* packaged @ 2:47 by KK

Cont Page 22

3[21]pm sample id: 335-GP-010-SS45
sample location: NW of site (sanitary cesspool)
sample depth interval: 45'-47' BEG
sampler: EK
sample description:
very pale brown 10yR 7/4
(SP) Poorly-graded sands,
fine to medium sand (~1mm)
no odor
PID reading: 0.0ppm
* packaged @ 3[40]pm by KK

End Page
10/12/99
KK

10/13/99

Weather Update: clear skies, sunny and warm.

8[13]am sample id: 335-GP-011-SS15
sample location: W interior of bld.
sample depth interval: 15'-17' BEG
sampler: EK
sample description:
brownish yellow 10yR 6/6
(GP) Poorly-graded gravels,
gravel-sand mixture
fine gravel (~4mm)
medium sand (~1mm)
no odor
PID Reading: 0.0 ppm
* packaged @ 8[21]am by KK

8[46]am sample id: 335-GP-011-SS30
sample location: W interior of bld.
sample depth interval 30'-32' BEG
sampler: EK
sample description:
brownish yellow 10yR 6/6
(SP) Poorly-graded sands
medium sand (~1mm)
trace gravel
no odor
PID Reading: 0.0 ppm
* packaged @ 9[10]am by KK

Cont Page 24

9⁵⁸ am Sample id: 335-GP-011-SS45
Sample location: W interior of bld.
Sample depth interval: 45'-47' BEG
Sampler: EK
Sample description:
very pale brown 10YR 8/4
(SP) Poorly-graded sands
fine to medium sand
no odor
PID Reading: 0.0 ppm
* packaged @ 10¹² am by KK

12⁰² pm Sample id: 335-GP-012-SS15
Sample location: ~17'N of bld (3rd bay from E)
Sample depth interval: 15'-17' BEG
Sampler: EK
Sample description:
brown 7.5YR 4/4
(GP) Poorly-graded gravels,
gravel sand mixture
fine gravel (~6mm)
medium sand (~1mm)
no odor
PID Reading: 0.0 ppm
* packaged @ 12¹² pm by KK

Cont/ Page 25

2³⁸ pm Sample id: 335-GP-012-SS30
Sample location: ~17'N of bld. (3rd bay from East)
Sample depth interval: 30'-32' BEG
Sampler: EK
Sample description:
yellowish brown 10YR 5/4
(SP)/(GP) Poorly-graded sands,
trace gravel (~3mm)
fine to medium sand (~1mm)
no odor
PID Reading: 5.2 ppm
* packaged @ 2⁴⁹ pm by KK

3³⁶ pm Sample id: 335-GP-012-SS45
Sample location: ~17'N of bld. (3rd bay from E)
Sample depth interval: 45'-47' BEG
Sampler: EK
Sample description:
very pale brown 10 YR 7/4
(SP) Poorly-graded sands,
fine to medium sand
slight odor (petroleum)
PID Reading 45.7 ppm
* packaged @ 3⁴² pm by KK

End Page
10/13/99
KK

10/14/99

9:40/9:15 am sample id: 335-GP-013-SS8
sample location: N of bld., W of EO USTs
sample depth interval: 8'-10' BEG
sampler: EK
sample description: very dark grayish brown 10YR 3/2
(GW) Well-graded gravels,
gravel-sand mixtures
Fine gravel
medium sand
moderate odor
PID Reading: 37.2 ppm
* packaged @ 9:25 am by KK

9:55 am sample id: 335-GP-013-SS12
Sample location: N of bld., W of EO USTS
Sample depth interval: 12'-14' BEG
sampler: EK
Sample description:
dark yellowish brown 10YR 4/4
(GP) Poorly-graded gravels,
gravel-sand mixtures
fine gravel
fine to medium sand
moderate odor
PID Reading: 147 ppm
* packaged @ 10:20 am by KK

Cont'd Page 27

10:13 am sample id: 335-GP-014-SS8
sample location: N of bld., W of EO USTs
sample depth interval: 8'-10' BEG
sampler: EK
sample description:
dark yellowish brown 10YR 4/4
(GW) Well-graded gravels,
gravel: sand mixtures
fine gravel
medium sand
mild odor
PID Reading: 31.4 ppm
* packaged @ 10:18 am by KK

10:31 am sample id: 335-GP-014/KK-SS12
sample location: N of bld., W of EO USTs
sample depth interval: 12'-14' BEG
sampler: EK
sample description:
dark yellowish brown 10YR 4/4
(GP) Poorly-graded gravels,
gravel-sand mixtures
fine gravel
fine to medium sand
no odor
PID Reading: 0.0 ppm
* packaged @ 10:36 by KK

Cont'd Page 28

10⁵⁰ am sample id: 335-GP-015-SS8 was received.
Sample location: N of bld, N of E UST
Sample depth interval: 8'-10' BEG
Sampler: EK
Sample description:
very dark grayish brown 10YR 3/2
(GW) well-graded gravels,
gravel-sand mixtures
fine gravel
medium sand
moderate odor
PID Reading: 281 ppm
* packaged @ 10⁵⁵ am by EK

11⁵⁰ am sample id: 335-GP-015-SS12 was received
Sample location: N of bld, N of W UST
Sample depth interval: 12'-14' BEG
Sampler: EK
Sample description:
dark yellowish brown 10YR 4/4
(GP) Poorly-graded gravels
gravel-sand mixtures
fine gravel
fine to medium sand
strong odor
PID Reading: 692 ppm
* packaged @ 11⁵⁵ am by EK

Cont' Page 29

11⁵⁵ am sample id: 335-GP-016-SS8 was received.
Sample location: N of bld, N of E UST.
Sample depth interval: 8'-10' BEG
Sampler: EK
Sample description:
brown 10YR 4/3
(GW) well-graded gravels,
gravel-sand mixtures
fine gravel
medium sand
moderate odor
PID Reading: ~~Odor~~ 254 ppm
* packaged @ 12⁰⁰ pm by EK

12¹⁰ pm sample id: 335-GP-016-SS12
Sample location: N of bld, N of E UST
sample depth interval: 12'-14' BEG
Sampler: EK
Sample description:
dark yellowish brown 10YR 4/6
(GP) Poorly-graded gravels,
gravel-sand mixtures
fine gravel
fine to medium sand
moderate to strong odor
PID Reading: 395 ppm
* packaged @ 12¹⁵ pm by EK

Cont' Page 30

12[56] pm Sample id: 335-GP-017-SS8
Sample location: N of UST on E portion of site.
Sample depth interval: 8'-10' BEG
Sampler: EK
Sample description:
dark yellowish brown 10 yR 4/4
(GW) well-graded gravels,
gravel-sand mixtures
fine gravel
medium sand
moderate odor
PID Reading: 236 ppm
* packaged @ 1[00] pm by EK

1[15] pm Sample id: 335-GP-017-SS12
Sample location: N of UST on E portion of site.
sample depth interval: 12'-14' BEG
Sampler: EK
Sample description:
dark yellowish brown 10 yR 4/4
(GP) Poorly-graded gravels,
gravel-sand mixtures
fine gravel
fine to medium sand
strong odor
PID Reading: 412 ppm
* packaged @ 1[26] pm by EK

Cont'd Page 31

2[14] pm Sample id: 335-GP-018-SS8
Sample location: NE of UST on E portion of site.
Sample depth interval: 8'-10' BEG
Sampler EK
Sample description:
very dark brown 10 yR 2/2
(GW) Well-graded gravels,
gravel-sand mixtures
fine gravel
medium sand
Strong to moderate odor
PID Reading: 343 ppm
* packaged @ 2[21] by EK

2[36] pm Sample id: 335-GP-018-SS12
Sample location: E of UST on E portion of site.
Sample depth interval: 12'-14' BEG
Sampler EK
Sample description:
very dark brown 10 yR 2/2
(GP) Poorly-graded gravels
gravel-sand mixtures
fine gravel
fine to medium sand
moderate to strong odor
PID Reading: 485 ppm
* packaged @ 2[47] pm by EK

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2^50 pm sample id: 335-GP-019-SS8
sample location: S of UST on E portion of site
sample depth interval: 8'-10' BEG
sampler: EK
sample description:
Strong brown 7.5YR 5/6
(GW) Well-graded gravels, gravel-sand mixtures
fine gravel
medium sand
mild odor
PID Reading: 142 ppm
* packaged @ 3^00 pm by KK

3^10 pm sample id: 335-GP-019-SS12
sample location: S of UST on E portion of site
sample depth interval: 12'-14' BEG
sampler: EK
sample description:
dark grayish brown 10YR 4/2
(GP) Poorly-graded gravels
gravel-sand mixture
fine gravel
fine to medium sand
moderate to strong odor
PID Reading: 415 ppm
* packaged @ 3^15 pm by KK

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12^20 pm sample id: 335-GP-020-SS8
sample location: W of UST on E portion of site
sample depth interval: 8'-10' BEG
sampler: EK
sample description:
~~light yellowish brown~~ 10YR 6/6
brownish yellow
(GW) Well-graded gravels, gravel-sand mixtures
fine gravel
medium sand
no odor
PID Reading: 0.5 ppm
* packaged @ 12^25 pm by KK

12^40 pm sample id: 335-GP-020-SS12
sample location: W of UST on E portion of site.
sample depth interval: 12'-14' BEG
sampler: EK
sample description:
light yellowish brown 10YR 6/4
(GP) Poorly-graded gravels, gravel-sand mixtures
fine gravel
fine to medium sand
mild odor
PID Reading: 135 ppm
* packaged @ 12^45 pm by KK

Excitage
10/14/99
KK