

### 13.1 INTRODUCTION

A Phase I Environmental Site Assessment (ESA) of the approximately 96-acre parcel was undertaken. The 96-acre parcel is located south of the Sills Road interchange (Exit 66) of the Long Island Expressway (LIE). It is situated east of Old Dock Road, north of Horseblock Road and south of the Long Island Railroad (LIRR) (see previous Figures 3-1 and 3-2). The objective of a Phase I Environmental Site Assessment is to evaluate whether current or historical activities on or near the 96-acre parcel may have resulted in a “Recognized Environmental Condition.” The American Society of Testing Materials (ASTM) defines a “Recognized Environmental Condition” as:

The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The Phase I ESA was conducted in general accordance with the ASTM “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process” (ASTM E 1527-00). The complete report is contained in Appendix K. The Phase I ESA consisted of the following tasks:

- Site reconnaissance;
- Description of historical site conditions;
- Interviews with the key site manager;
- Review of environmental database and regulatory agency records;
- Review of previous Phase I reports for this property (if provided); and
- Preparation of a report summarizing findings, opinions, and conclusions.

### 13.2 EXISTING SITE CONDITIONS, HISTORICAL SITE USE, AND VISUAL INSPECTION SUMMARY

The 96-acre parcel is currently undeveloped woods mostly consisting of oak and pine scrub growth. Tire tracks on the dirt roads indicated frequent use by all-terrain vehicles and motorcycles. A large number of shotgun shell casings and fractured clay pigeon targets were noted throughout the property along the trails, particularly on the northern

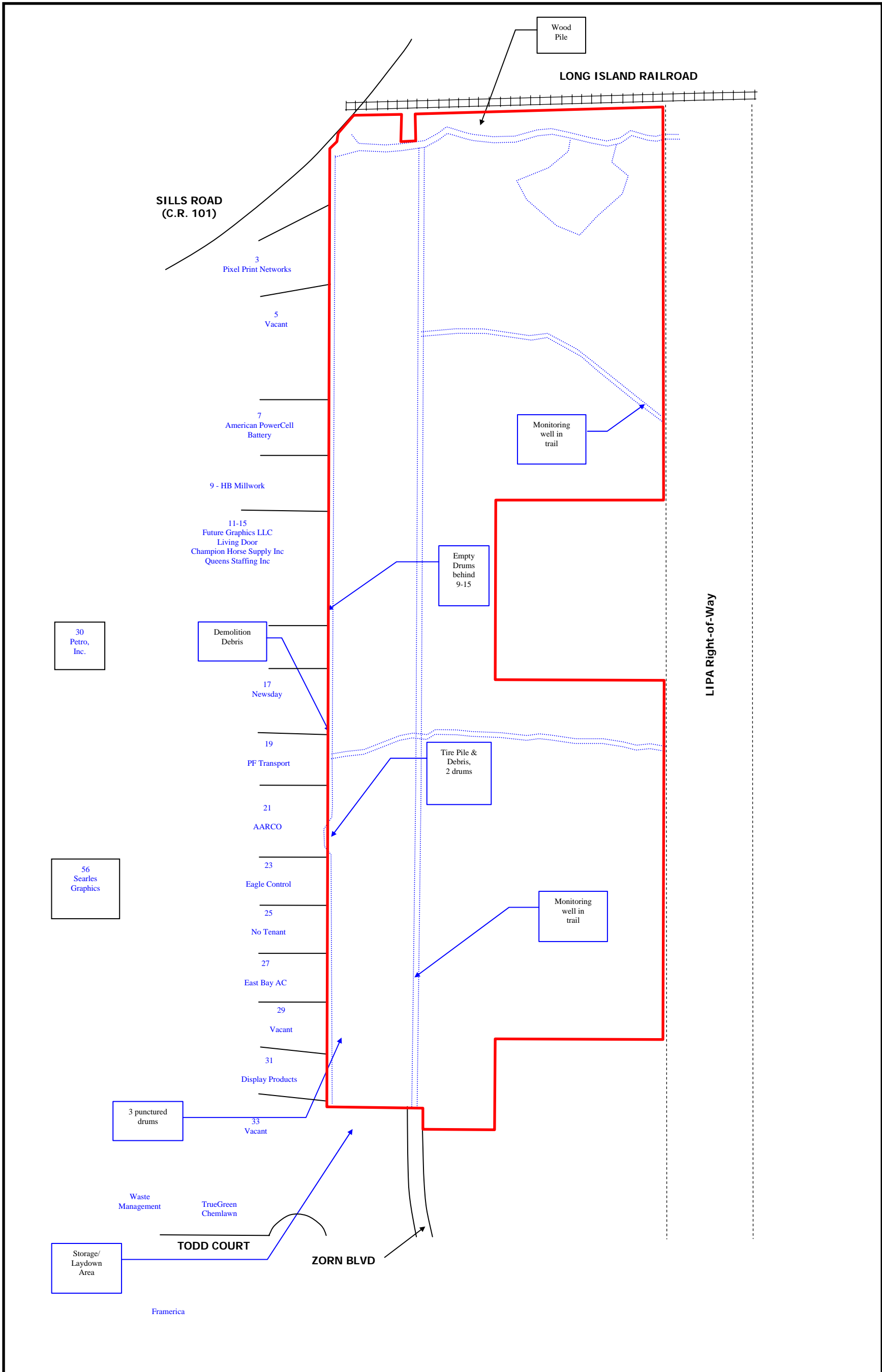
and eastern portions, and a number of tree stands for deer hunting were also observed, indicating fairly regular use by hunters and skeet shooters. The 96-acre parcel is bounded immediately to the north by the Long Island Railroad (LIRR) tracks, with additional undeveloped lands beyond to the north. County Route (CR) 101 (Sills Road) runs northeasterly along the northwest corner of the 96-acre parcel. The 96-acre parcel is bounded to the east by a LIPA transmission line right-of-way, with additional undeveloped woodlands beyond. The 96-acre parcel is bounded to the south by undeveloped woodlands and the northern terminus of Zorn Boulevard, with Todd Court, undeveloped woodlands, a Sunoco gas station, and Horseblock Road beyond. A large tract owned by the Felix Grucci family which operates as the New York Pyrotechnics Product Co. is located approximately 1,000 feet to the east of the southeast corner of the 96-acre parcel. The 96-acre parcel is bounded to the west by nine light industrial/commercial buildings that are part of the Sills Industrial Park along Old Dock Road, with Old Dock Road and additional light industrial/commercial buildings beyond to the west.

Based on a review of historical aerial photographs, historical topographic maps, and the information provided by the two property owners, the 96-acre parcel has always been undeveloped woodlands. No visual evidence of historical uses other than those described above was noted during the site visit.

The 96-acre parcel contained a quantity of miscellaneous debris, particularly along the western boundary behind the adjoining Sills Industrial Park properties. Little debris was observed along the central and eastern portions of the property except for what possibly appeared to be a former concrete septic tank and a large number of shotgun shell casings, indicating that hunters and target shooters use the trails. The debris along the western perimeter included several empty drums, numerous tires including a large tire pile behind 21 Old Dock Road, newspaper, metal, glass, plastic, wood, pallets, demolition debris in the form of wood and drywall, empty propane tanks, and old furniture. A number of empty 55-gallon metal drums were staged behind 11-15 Old Dock Road. Two empty, dry, crushed rusted drums were located at the edge of the 96-acre parcel behind 19 Old Dock Road along with other debris behind the tire pile. These appeared to have been empty prior to dumping and no holes were observed. Three punctured, rusty 55-gallon drums were seen in the woods adjacent to the western property boundary in the southern portion of the 96-acre parcel behind 29 Old Dock Road. The soils in the vicinity of these three punctured drums were sampled in November 2002 as part of a previous Site Assessment, and no volatile organic, semivolatile organic, PCB, or metal compounds were detected above New York soil guidelines.

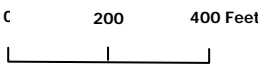
There were two monitoring wells observed on the 96-acre parcel during the on-site inspection. Both wells were flush-mounted. One well was observed in the center of a northwest-to-southeast dirt footpath near the eastern edge of the northern portion of the 96-acre parcel. The second well was in the middle of the center north-to-south dirt road which runs between the southern part of parcels 0200-777-01-28.5 and 0200-777-07-1.1.

Figure 13-1 provides a survey map of the 96-acre parcel summarizing the locations of the observations noted above.



**LEGEND**

-  Dirt Trail
-  Footpath



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 Caithness Long Island Energy Center  
 Town of Brookhaven, Suffolk County, NY**

**Figure 13-1. Phase 1 ASTM  
 Site Inspection Summary**

Source: TRC June 7, 2004 Phase I ESA Report

To obtain additional information relative to the two monitoring wells observed on the 96-acre parcel, the Suffolk County Department of Health Services (SCDHS), Division of Environmental Quality, Office of Water Resources was contacted. The SCDHS stated that the monitoring wells were most likely installed historically as a part of the ground water investigation at the downgradient Grucci Fireworks facility (aka the New York Pyrotechnics Product Company) property or other historic contamination investigations. Caithness requested a copy of any information the SCDHS had concerning these wells, and was forwarded a copy of a 2001 SCDHS report entitled *Investigation Summary: Perchlorate Contamination in Yaphank, Suffolk County, NY*. A review of the SCDHS report showed that three monitoring wells or sampling points appeared to have been installed on the 96-acre parcel as a part of the SCDHS Perchlorate Investigation. The sampling data provided within the report indicated that none of the compounds which were analyzed for had concentrations above the New York State Department of Environmental Conservation (NYSDEC) ambient water quality standards in any of the three wells on the 96-acre parcel. However, the figures provided within the report indicated the presence of a former (1998) tetrachloroethene (PCE) contamination plume with a footprint which extended across the northern portion of the 96-acre parcel, north of the 15-acre project site (see Figure 13-2).

To obtain additional information on the contamination plume, Caithness requested and obtained from the SCDHS a facsimile copy of a February 1999 SCDHS report entitled *Groundwater Contamination by Tetrachloroethene in Yaphank, Suffolk County, NY*. This 1999 SCDHS report indicated the presence of three additional monitoring wells or sampling points on or near the 96-acre parcel (see Figure 13-3). One well (YP-21) was located in the northwest corner of the 96-acre parcel, and two wells were indicated as being located along the LIPA right-of-way (YP-16 and YP-22) along the northern part of the eastern boundary of the 96-acre parcel. It is likely that the monitoring well observed in the center of the northwest-to-southeast dirt footpath near the eastern edge of the northern portion of the 96-acre parcel was one of these latter two wells. The 1999 SCDHS report indicated that PCE concentrations were detected in these three wells which ranged from 6 parts per billion (ppb) to 13 ppb, which is above the current NYSDEC ambient water quality standard of 5 ppb. The report deduced that the PCE plume originated from illegal dumping along dirt roads northwest of the Sills Road/Long Island Railroad intersection area (upgradient and offsite from the 96-acre parcel) in the 1977-1981 timeframe. Caithness contacted the SCDHS to discuss this finding. Mr. Ron Paulson, SCDHS Geologist, stated that any PCE contamination detected in 1998 has most likely migrated downgradient beyond the project parcel, due to the speed at which ground water moves through the sandy aquifers of Long Island (calculated at 1.5 feet per day in the 1999 SCDHS report)<sup>1</sup>.

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<sup>1</sup> Personal Communication between Mr. Bruce Babcock of TRC Environmental and Ron Paulson, Geologist, Suffolk County Department of Health Services, June 2004.

### 13.3 DATABASE REVIEW

Various federal and state regulations require that government agencies maintain records of environmental permits, records of properties impacted by regulated compounds, and records of properties under investigation by the government for alleged violations of hazardous material regulations. Environmental Data Resources, Inc. (EDR), a specialized research firm, was contracted to provide an electronic search of these data files for sites within a distance of up to one mile from the 96-acre parcel in accordance with the requirements of with ASTM E 1527-00, which are summarized in the EDR Radius Map with GeoCheck<sup>®</sup> report (“EDR Report”), which is presented as Appendix D of the Phase 1 ASTM Report included as Appendix H of this EIS.

The databases searched in the EDR Report include the Federal ASTM Standard databases for National Priority List (NPL) sites, Proposed NPL sites, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites, CERCLIS No Further Remedial Action Planned (NFRAP) sites, Corrective Action Report (CORRACTS) sites, Resource Conservation and Recovery Information System (RCRIS) Transportation, Storage, and Disposal (TSD) sites, RCRIS Large Quantity Generator (LQG) sites, RCRIS Small Quantity Generator (SQG) sites, and Emergency Response Notification System (ERNS) sites. The State ASTM Standard databases searched include State Hazardous Waste Sites (SHWS), Solid Waste Facilities/Landfill Sites (SWF/LF), Leaking Storage Tank Incident Reports (LTANKS), Petroleum Bulk Storage (PBS) Database for Underground Storage Tanks (UST), Chemical Bulk Storage Database for Underground Storage Tanks (CBS UST), Major Oil Storage Facilities Database for Underground Storage Tanks (MOSF UST), Voluntary Cleanup Agreements sites (VCP), the Registered Waste Tire Storage & Facility List (SWTIRE), and the Registered Recycling Facility List (SWRCY). A number of additional federal, state, and county supplementary databases were also searched; the complete listing of the databases searched is provided within the EDR Report.

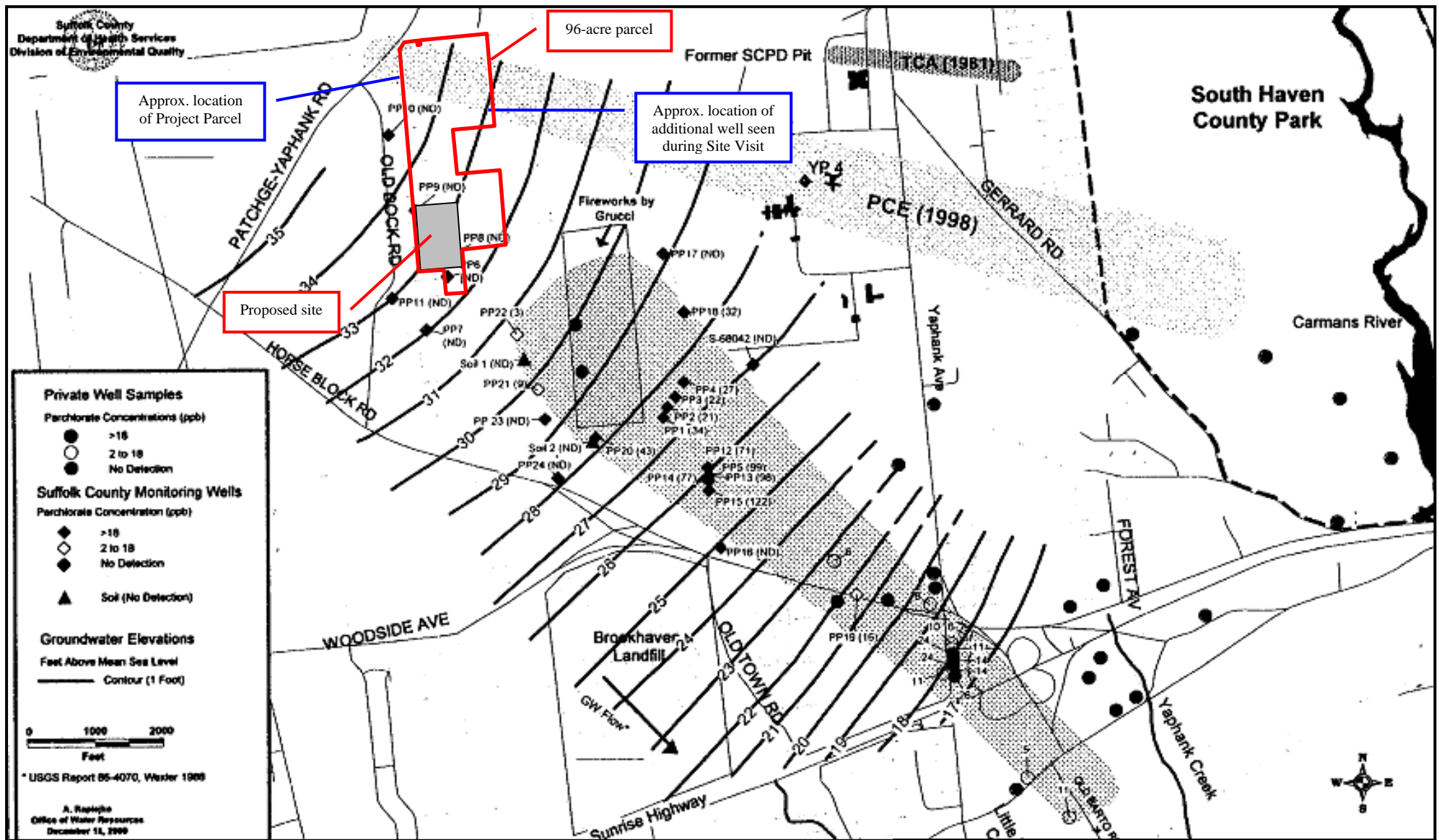
#### A. 96-ACRE PARCEL

The 96-acre parcel was not listed in any of the databases searched by EDR.

#### B. ADJACENT SITES

Eleven sites were identified adjacent or in close proximity to the 96-acre parcel. There were no federal NPL, proposed NPL, CERCLIS, CORRACTS, RCRIS-TSD, ERNS, or supplemental database sites located within the respective search radius distances of the EDR Report. There were no state SHWS, UST, CBS UST, MOSF UST, VCP, SWTIRE, SWRCY or supplemental sites (other than 4 SPILLS sites) located within the respective search radius distances of the EDR Report.

Two RCRIS Generator sites (one large and one small) were listed. Chemlawn Corp. (Todd Court) is located approximately 500 feet southwest of the southwestern corner and cross gradient. Searles Graphics (56 Old Dock Road) is located approximately 500 feet west across Old Dock Road and upgradient. Due to the distances and/or relative



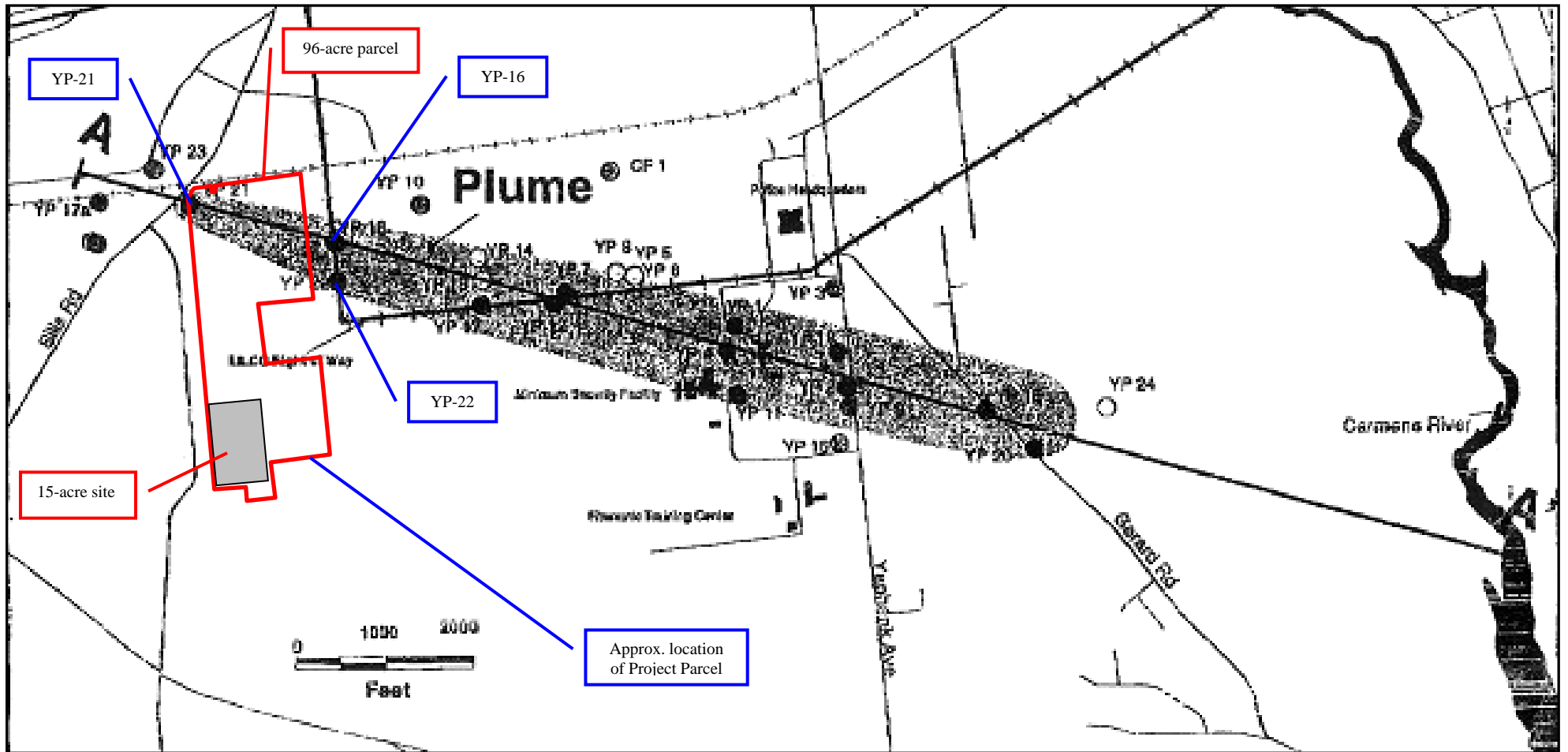
Source is Plate 1 of Suffolk County Department of Health Services Report, *Investigation Summary: Perchlorate Contamination in Yaphank, Suffolk County, NY*, dated January 2001 (See App. G)



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**Figure 13-2. Location of Former (1998) Tetrachloroethene (PCE) Contamination Plume as Identified by SCDHS**

Scale: As Shown



Source is Appendix C of Suffolk County Department of Health Services Report, *Investigation Summary: Groundwater Contamination by Tetrachloroethene in Yaphank, Suffolk County, NY*, dated February 1999.



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**Town of Brookhaven, Suffolk County, NY**

**Figure 13-3. Location of SCDHS Tetrachloroethene (PCE) Monitoring Wells**

Scale: As Shown

locations, and lack of reported leaks, these two RCRIS sites are not considered to present an environmental concern to the 96-acre parcel.

Three State Landfill sites were listed. Waste Management of New York, also listed separately as All Island Demolition Recycling at the same address, is located approximately one-tenth of a mile southwest of the southwestern corner and cross gradient. The Town of Brookhaven Materials Recycling facility is located approximately one-half of a mile southwest and crossgradient. Due to the distances and/or relative locations these three landfill sites are not considered to present an environmental concern to the 96-acre parcel.

Two LTANKS sites were listed. Petro, Inc. (30 Old Dock Road) is located approximately 500 feet west across Old Dock Road and upgradient. The details of this LTANKS listing indicated that gasoline was spilled on 11/8/2000 while filling a tank truck which reached a storm drain/drywell. The EDR details stated that "Milro" should collect bottom samples after cleaning the drywell, and that the case was not closed. Caithness contacted Mr. Tom Crawford, Oil Department Manager of Petro, regarding this listing. Mr. Crawford stated that the Milro is the environmental cleanup contractor who completed the cleanup of the spill to the satisfaction of the NYSDEC, who were present during the cleanup, and that testing indicated that groundwater was not impacted<sup>2</sup>. Based on this information, this Petro Spill is not considered to present an environmental concern to the 96-acre parcel. The second LTANK site is the Town of Brookhaven Materials Recycling facility, located approximately one-half of a mile southwest and crossgradient. Due to the distance and relative location this LTANK site is not considered to present an environmental concern to the 96-acre parcel.

Four SPILLS sites were listed. The first site (labeled as Unknown) consisted of a oil spill at the intersection of Old Dock Road and Sills road, located approximately 500 feet west of the western boundary of the northwestern portion of the 96-acre parcel and upgradient. The details indicated that it was found to be an oily stain, and that no further action was considered necessary, and the case was closed. Tribiology at 85 Old Dock Road is located approximately one-quarter of a mile southwest and crossgradient. Waste Management of Long Island at 82A Old Dock Road is located approximately one-tenth of a mile southwest of the southwestern corner across Old Dock Road and cross gradient. The Town of Brookhaven Materials Recycling facility is located approximately one-half of a mile southwest and crossgradient. Due to the distances and/or relative locations, and the fact that all of the spill cases were listed as complete with no further action required, these four SPILLS sites are not considered to present an environmental concern to the 96-acre parcel.

*C. UNMAPPABLE / ORPHAN SITES*

Due to poor or inadequate address information, there were twenty eight unmappable sites identified in the databases reviewed by EDR. (Several sites were listed more than once

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<sup>2</sup> Personal Communication between Mr. Bruce Babcock of TRC Environmental and Tom Crawford, Oil Department Manager, Petro, Inc, June 2004.

under more than one database). A commercial mapping software was used as well as the site reconnaissance in order to attempt to locate these unmappable sites.

One SHWS site was listed as unmappable. The New York Pyrotechnics Product Co., also known as the Grucci Fireworks facility, is located approximately 1,000 feet to the east of the southeast corner of the 96-acre parcel and downgradient. This site was noted in the EDR details as having heavy metals in soils, and was indicated during the previous Phase I Site Assessment as having a known groundwater contamination problem. However, based on the location downgradient relative to the 96-acre parcel, this site is not considered to present an environmental concern to the 96-acre parcel.

Five SWF/LF (landfill) sites were listed as unmappable. The Town of Brookhaven Landfill and Gas Recovery facility (listed twice) is located approximately one mile southeast and downgradient. J.B.H. Tire Recycling is listed as being located on Old Dock Road, but was not able to be located during the Site Reconnaissance. Liere Farm and Frog Hollow Industries are located on Long Island Avenue and East Main Street respectively, across the Long Island Expressway and approximately one mile northeast and cross gradient. Based on their distance and/or locations relative to the 96-acre parcel, and/or the lack of reported problems, none of these five SWF/LF sites are considered to present an environmental concern to the 96-acre parcel.

Seventeen SPILLS sites were listed as unmappable. The details of the listings were reviewed and it was determined that a majority of the sites related to auto accidents or minor spills at sites that were found to be located at such a distance or direction relative to the subject site, or were cleaned up immediately and had no further action required that they are not considered to present an environmental concern to the 96-acre parcel. Two of the SPILLS sites were listed as being on Old Dock Road. Petro, Inc., discussed in the previous section, had a minor leak in April 2000 of 6 gallons of oil from a tank truck with a loose fill cap as it was driving along Old Dock Road. The spill was cleaned up immediately. The second site was unnamed, and was an incident where a 30-gallon plastic drum with petroleum was found abandoned in July 1995 at the intersection of Sills Road and Old Dock Road. NYSDEC hired a contractor, who removed the drum and the case was closed. Based on the details above, none of the orphan SPILLS sites are considered to present an environmental concern to the 96-acre parcel.

Two UST sites were listed as unmappable. The Liguori Property is listed as being located on Old Dock Road, but was not able to be located during the Site Reconnaissance. The EDR details indicate that two 4,000-gallon fuel oil USTs and one 550-gallon waste oil UST were removed in 1990/1991, and that one 1,000-gallon fuel oil UST and one 280-gallon waste oil UST were removed in 1996. Waste Management of New York is located approximately one-tenth of a mile southwest of the southwestern corner across Old Dock Road and cross gradient, and is listed as having had two 5,000-gallon leachate USTs removed in 1991. Based on the inactive status and lack of reported leaks, these two UST sites are not considered to present an environmental concern to the 96-acre parcel.

Three above-ground storage tank (AST) sites were not able to be mapped. Sanchez (24 Old Dock Road) is located at approximately 500 feet west across Old Dock Road, at the intersection with Industrial Court, and upgradient of the proposed site. The EDR detail

indicates that three 250-gallon and one 500-gallon fuel oil ASTs have been approved and are awaiting construction. The Liguori Property is listed as being located on Old Dock Road, but was not able to be located during the site reconnaissance. The EDR details indicate that two 275-gallon fuel oil ASTs are present on the site. Waste Management of New York is located approximately one-tenth of a mile southwest of the southwestern corner and cross gradient, and is listed as having had one 4,400-gallon diesel AST removed in 2001, and having one 1,750-gallon diesel AST active. A 275-gallon waste oil AST and a drum storage area have been approved and are awaiting construction. Based on their distance and/or locations relative to the 96-acre parcel, and/or the lack of reported leaks, these three AST sites are not considered to present an environmental concern to the 96-acre parcel.

### **13.4 PHASE I RECOMMENDATIONS**

The presence of the former groundwater PCE contamination on the 96-acre parcel that was previously identified by the SCDHS was identified as part of the Phase I ASTM assessment as a recognized environmental condition as defined in ASTM E 1527-00. Accordingly, further investigation was undertaken through the conduct a Limited Phase II assessment of the ground water in the area of the former 1998 PCE plume in order to determine whether or not this former PCE contamination is still an existing recognized environmental condition or has now become an historical recognized environmental condition as defined in ASTM E 1527-00.

### **13.5 RESULTS OF TESTING**

Caithness installed two Geoprobe temporary well points within the footprint of the former PCE plume, and collected 2 samples at differing depths below grade from each well point for volatile organic compound analysis, including PCE. As presented in Figure 13-4, one Geoprobe well point location (GP-1) was located within the northwest corner area of the site and former plume, along the north portion of the a central north-to-south trail that runs through the western portion of the site. The second well point (GP-2) was installed within the eastern portion of the former plume north of the northern west-to-east dirt trail. The well points were located through the use of a Magellan Meridian Gold portable GPS unit which was programmed to display coordinates in the New York (Long Island) NAD27 State Plane coordinate grid system. The sampling activities at these locations did not require any tree clearing.

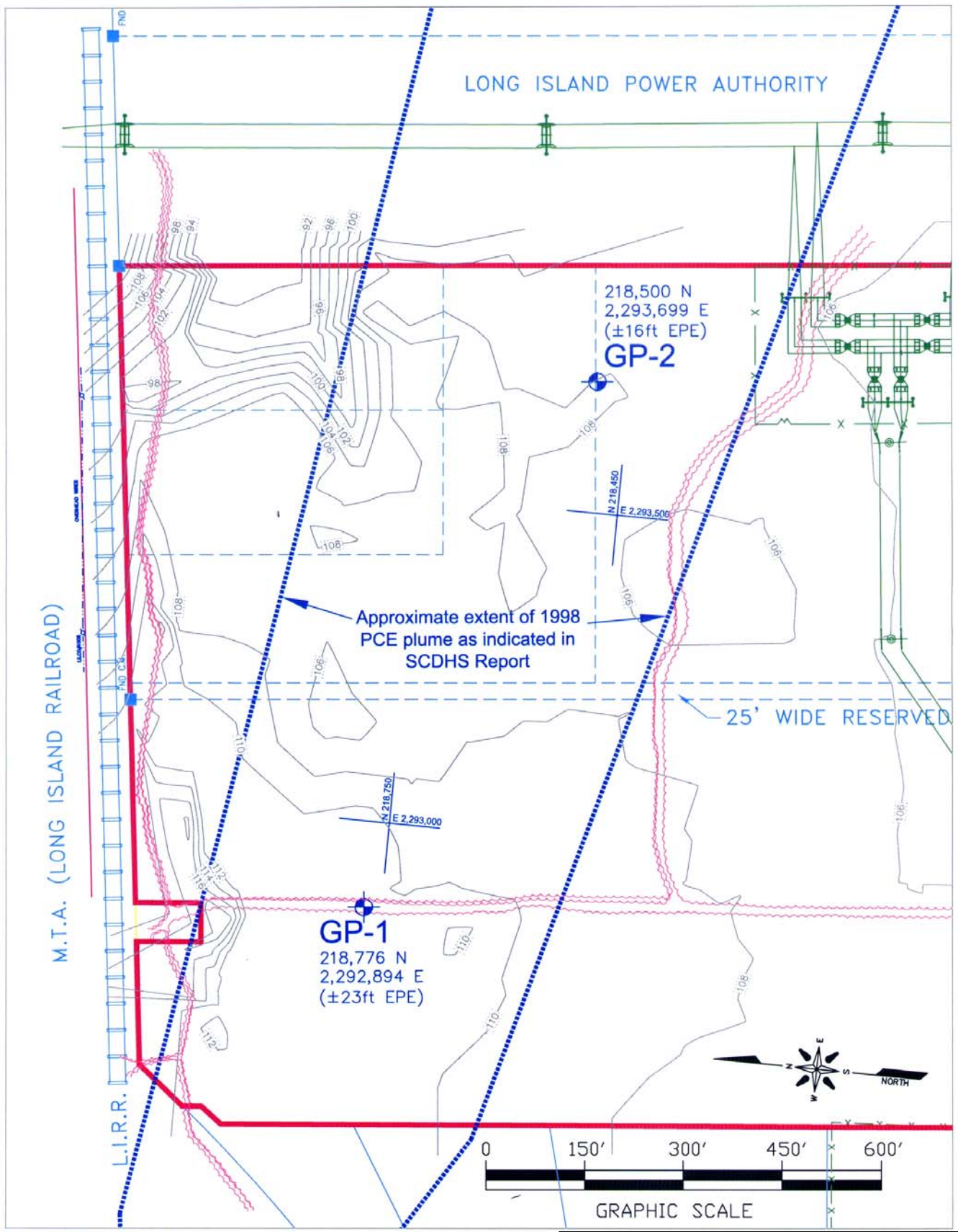
Caithness attempted to correlate the sample collection depths with the depths of the samples collected by the SCDHS in 1998, and the collection of two samples at each Geoprobe well point location allowed for any slight variation in elevation between the 1998 SCDHS sample locations and the current locations, and maximized the possibility of detection any potential contamination present. Groundwater was encountered at 74 feet below grade at GP-1 and 75 feet below grade at GP-2.

The samples were analyzed by a New York-certified laboratory for Volatile Organic Compounds plus a forward library search (VO+10). All concentrations of VO+10 were below the Groundwater Standard values in the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) #4046: Determination of Soil and Cleanup Objectives

and Cleanup Levels, dated January 1994. Chloroform was detected in all four water samples at concentrations ranging from 1.2 ppb to 1.8 ppb, well below the groundwater standard of 7 ppb. Samples GP-2, 91-95' and GP-2, 99-103' detected PCE at concentrations of 0.97 and 1.3 ppb, well below the groundwater standard of 5 ppb.

### **13.6 PROBABLE IMPACTS OF THE PROJECT**

The sample results presented above support the SCDHS statement that the former tetrachloroethylene (PCE) contamination plume previously identified as being located within the 96-acre parcel had most likely migrated downgradient and off the 96-acre parcel since the sampling conducted in 1998 by the SCDHS. Accordingly, no further sampling was recommended. Therefore, construction and operation of the proposed project would not be expected to have any significant adverse effects with regard to contaminated materials. As a consequence, no mitigation would be required. \*



Phase II Well Point Location

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**Figure 13-4. Phase II Groundwater Sampling Location Map**

Source: TRC, August 2004