NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report

DATE: 11/8/2012

Site Code: 130050 **Site Name:** Franklin Cleaners
City: Hempstead **Town:** Hempstead
Region: 1 **County:** Nassau
Current Classification: 02 **Proposed Classification:** 04
Estimated Size (acres): 0.12 **Disposal Area:** Structure
Significant Threat: Previously **Site Type:** Dry Cleaner
Priority ranking Score: **Project Manager:** David Gardner

Summary of Approvals

Originator/Supervisor: Susan Edwards **09/06/2012**

RHWRE: Walter Parish: **10/16/2012**

BEEI of NYSDOH:

CO Bureau Director: Michael Cruden, Director, Remedial Bureau E: **11/07/2012**

Assistant Division Director: Robert W. Schick, P.E.: **11/07/2012**

Basis for Classification Change

Hazardous waste disposal at this site was addressed by implementation of the selected remedy as identified for the site by the Record of Decision (March 1998). All construction of the components of the selected remedy was completed no later than 2004. The Final Engineering Report (FER) confirms that the remedy has been constructed consistent with the requirements in the ROD. The FER is available in eDocs. Management of contamination remaining at the site, including any required monitoring, is and has been controlled pursuant to a Site Management Plan (SMP). A copy of the SMP is available in eDocs. Institutional controls were not required to ensure the protectiveness of the site as all on-site objectives were satisfied. A significant threat to public health and the environment no longer exists at the site. The site is properly remediated and requires site management; therefore, it qualifies for Class 4 status on the Registry of Inactive Hazardous Waste disposal sites.

Site Description - Last Review: 11/07/2012

Location: The Franklin Cleaners Site is an inactive dry cleaning facility located at 206-208B South Franklin Street in the Incorporated Village of Hempstead, Nassau County, New York.

Site Features: The Site is approximately 0.25 acre in size and currently includes a two-story building with a coin-operated laundromat and delicatessen on the first floor, residential apartments on the second floor and a full basement. Portions of the first floor and basement were utilized by the former dry cleaning facility.

DATE: 11/8/2012

Site Code: 130050 **Site Name:** Franklin Cleaners

Current Zoning/Use(s): The surrounding properties are primarily residential with the exception of South Franklin Street which is mixed residential-commercial with numerous small businesses. The site and surrounding community is serviced by public water and sewer from the Village of Hempstead. The building was connected to the Village sewer system at the time of construction in 1956.

Historic Use(s): Franklin Cleaners had operated as a dry cleaning establishment since 1957 or prior to this date. The business name was changed to Grace Cleaners in 1990. The owner reported the occurrence of leaks and spills from the machines and equipment. The dry cleaning operation was replaced by a retail clothing store in 1991. The clothing store closed approximately 6 months later and the site was subsequently replaced by a succession of delicatessens, the latest of which currently operates at the site. In addition, a laundromat business has been continuously operating at the site since 1987. During the years when a dry cleaner operated at this property, a spent dry cleaning fluid "cooker" operated in the basement of the building.

In March 1990, the Nassau County Department of Health (NCDOH) investigated a complaint of tainted drinking water from a private residence, located approximately 100 feet southwest and downgradient of the Site. The residence was found to have a drinking water well (approximately 45 feet deep) and an irrigation well (approximately 32 feet deep), with concentrations of tetrachloroethylene (PCE) of 5,500 micrograms per liter (ug/l) and 29,000 ug/l, respectively.

NCDOH performed an inspection of the Site in April 1990. As part of this inspection, soil samples were collected from surface soil exposed at cracks and gaps within the building basement and from surface soil at the rear of the Site. Soil samples collected from building basement exhibited PCE concentrations of as high as 9,400 ug/kg. In addition, soil samples collected from outside the rear of the property exhibited PCE concentrations as high as 650,000 ug/kg, trichloroethylene (TCE) concentrations as high as 1,700 ug/kg and dichloroethylene (DCE) concentrations as high as 680 ug/kg.

Based on the results of the NCDOH groundwater and soil investigations detailed above, a Preliminary Site Assessment was performed by the Nassau County Department of Public Works (NCDPW) between April 1992 and December 1992. As part of this investigation, four groundwater monitoring wells were installed as follows: monitoring well FC-1 was installed upgradient of the Site to a depth of 40 feet below ground surface and monitoring wells FC-2, FC-3 and FC-4 were installed downgradient of the Site, each to a depth of 37 feet below ground surface. Groundwater samples were subsequently collected from this groundwater monitoring well network for volatile organic compound (VOC) analysis. Groundwater monitoring well FC-2 exhibited PCE at a concentration of 83 ug/l, in exceedance of its Class GA Groundwater Standard of 5.0 ug/l. However, upgradient groundwater monitoring well FC-1 and downgradient groundwater monitoring wells FC-3 and FC-4 did not exhibit exceedances of PCE.

The site was referred to the State Superfund Program for a RI/FS on November 6, 1995. The NYSDEC issued a Record of Decision (ROD) in March 1998.

Geology and Hydrogeology: The saturated sands and gravels of the Lloyd, Magothy and lower portion of the Upper Glacial deposits form Long Island's three major aquifers. These aquifers constitute Long Island's Sole Source Aquifer, as designated by the Environmental Protection Agency (EPA) pursuant to Section 1424(e) of the Safe Drinking Water Act. A Sole Source Aquifer is defined as one which supplies at least 50% of the

drinking water consumed in the area overlying the aquifer and which has no reasonably available alternative sources of water should the aquifer become contaminated.

The Upper Glacial aquifer is approximately 80 feet thick beneath the Site and consists primarily of glacial outwash, which is generally fine to coarse sand and gravel with thin local lenses of clay. Hydraulic conductivity values average about 250 ft/day; however, this does not imply that groundwater contaminants will travel at this rate. Regional groundwater flow is predominantly south southwest.

The Magothy aquifer ranges from 300 to 600 feet thick. The unit consists mostly of fine to medium sand to clayey sand interbedded with lenses and layers of coarse sand, and sandy to solid clay. Gravel is common in the basal zone and discontinuous layers of gray lignitic clay are common in the upper zone. Hydraulic conductivities average 50 and 60 ft/day and may range as high as 190 ft/day in the basal zone.

Shallow groundwater flow in the vicinity of the Site is predominantly south-southwest. The most recent depth to water measurements have indicated that the water table is located approximately 15 feet below ground surface (December 2008) at the Site and approximately 18 feet below ground surface (March 2012) at the groundwater extraction and treatment system (GWE andTS). The GWEandTS was constructed on or about 1000 Hempstead Avenue approximately 4,125 feet south-southwest of the site to contain the leading edge of the contaminant plume. Contaminated groundwater is extracted via two (2) extraction wells (screened approximately 70-90' below ground surface) and subsequently treated through use of a shallow-tray air stripper to remove volatile organics.

Contaminants of Concern (Including Materials Disposed)	**Quantity Disposed**
OU 01	
TETRACHLOROETHYLENE (PCE)	gal
DICHLOROETHYLENE	
TRICHLOROETHENE (TCE)	

Analytical Data Available for : Groundwater, Drinking Water, Soil

Applicable Standards Exceeded for: Groundwater, Drinking Water, Soil

Site Environmental Assessment- Last Review: 11/07/2012

Nature and Extent of Contamination:
Prior to remediation: Prior to remediation, the primary contaminants of concern were tetrachloroethylene (PCE) and the breakdown products: trichloroethylene (TCE) and dichloroethylene (DCE).

Groundwater: Groundwater samples were collected from three different depth ranges during this investigation, utilizing both groundwater probes and groundwater monitoring wells. Groundwater samples were collected from the water table (approximately 20 to 26 feet below grade), from an intermediate depth (33 to 57 feet below grade) and from a deeper depth (49 to 87 feet below grade). All of the samples were collected just above a significant clay layer which appears to be present throughout the study area. Direct-push sampling included: fifty-three (53) shallow groundwater samples, fifty-two (52) intermediate groundwater samples, and fifty-two (52) deep groundwater samples at locations both upgradient and downgradient of the Franklin Cleaners Site. Monitoring well sampling included samples from: seven (7) shallow groundwater monitoring wells, four (4) intermediate monitoring wells, and three (3) deep monitoring wells. Additional groundwater

samples were collected from two shallow domestic wells, one intermediate domestic well, and one deep irrigation well.

All of the groundwater samples collected were analyzed for VOCs, iron, and manganese. Based on the results of the analysis, the primary compounds that exceeded groundwater standards were PCE, TCE, 1,l-DCE and 1,2-DCE. The groundwater plume which emanates from the Franklin Cleaners Site can be traced from this former dry cleaner to nearly one mile downgradient (south) of the Site where it ends on the northern boundary of the Molloy College property, just south of the Southern State Parkway. The width of the plume remains narrow throughout its length, generally less than 500 feet. In comparing the contaminant levels in the shallow, intermediate, and deep Upper Glacial aquifer, it is apparent that contamination migrates downward as it travels away from the site.

Surface/Subsurface Soil: Sampling of soils from beneath the floor slab in the interior of the basement of the former dry cleaners and in the rear alley of the cleaners by the Nassau County Department of Health (NCDOH) in 1990 showed elevated levels of PCE.

Sampling of interior soils during the Remedial Investigation (specifically December 13, 1996 - January 22, 1997) included eighteen (18) interior surface soil locations with samples collected below the concrete basement floor at a depth of 6 to 12 inches. As identified in Table C-1 of the November 1998 RI/FS report, six of the 18 surface soil samples collected exceeded the "NYSDEC TAGM 4046 Appendix A Criteria" soil cleanup objective for PCE (listed as 1400 ug/kg) with the highest concentration detected at 240,000 ug/kg.

Soil borings were advanced at ten (10) of the interior surface soil locations and continuously sampled in one- or two-foot increments to a depth of 12 feet below ground surface. As identified in Table C-2 of the November 1998 RI/FS report, only one of the subsurface soil samples collected from the interior of the building (FISB-11 at a depth of 2 - 3 feet below ground surface) exceeded the "NYSDEC TAGM 4046 Appendix A Criteria" soil cleanup objective for PCE (listed as 1,400 ug/kg) with a concentration detected at 13,000 ug/kg.

Sampling of exterior soils during the Remedial Investigation (specifically December 13, 1996 - January 27, 1997) included a total of fifteen (15) exterior surface soil locations at a depth of 6 to 12 inches (eleven samples (FOSS-02 – FOSS-07, FOSS-11 – FOSS-15) on-site in the rear of the property, two samples (FOSS-09, FOSS-10) off-site in the rear of the property, one sample (FOSS-08) in the front of the property, and one sample at a depth of 2-3 feet below ground surface (DWS1) in a dry well at the base of the rear staircase). PCE was detected in four of the surface soil samples at levels above the soil cleanup objective as indicated in Table C-4 of the November 1998 RI/FS report. The highest concentration of PCE detected in the surface soil was in sample FOSS-03 at 280,000 ug/kg. This sample also contained trichloroethene (920 ug/kg) and 1,2-dichloroethene (1200 ug/kg) above the listed "NYSDEC TAGM 4046 Appendix A Criteria" soil cleanup objectives of 700 ug/kg and 300 ug/kg, respectively.

Soil borings were advanced at nine (9) of the exterior surface soil sample locations up to a maximum depth of 21 feet below ground surface. Analytic results from samples taken at three of the soil borings (FOSB-01, FSOB-02 and FOSB-05) indicated the presence of elevated levels of PCE as shown in Table C-5 of the November 1998 RI/FS report. Analysis of a sample taken from FSOB-05 (depth of 1 - 2 feet below ground surface) identified the maximum PCE concentration detected at 450,000 ug/kg. At this soil boring, FSOB-05,

PCE contaminant levels were highest near ground surface and decreased with depth down to a concentration of 5900 ug/kg at a depth of 11 - 12 feet below ground surface. Based on the December 1996/January 1997 sampling events, elevated levels of contamination appear to be limited to an area immediately adjacent to the back door of the former dry cleaning facility. This area is approximately 250-300 square feet.

Indoor/Ambient Air:
One ambient air sample (FIA-l) was collected in the basement of the former dry cleaner at the location of the former "cooker" over an 8-hour period using a SUMMA® canister with a preset manifold flow rate set at 11.5 ml/rnin. The air sample was analyzed for VOCs by Method EPA TO-14. Based on the results of the air sample collected from the basement of the building, the New York State Department of Health (NYSDOH) recommended that additional air sampling should be conducted throughout the commercial building, at adjacent outdoor areas and at adjacent residential and commercial buildings to define the extent of ambient air contamination by PCE.

The results of indoor air sampling indicated that PCE vapors have impacted the air in the basement and first floor levels of the former Franklin Cleaners building and adjacent commercial building (pharmacy and restaurant) at levels greater than the NYSDOH action level of 1,000 ug/m3. Analysis of a passive sampling device placed over a hole in the basement floor of the former dry cleaner shop (location PSD number 15, Sample A and B) revealed concentrations of PCE at approximately 71,000 and 75,000 ug/m3, indicative of elevated soil vapor concentrations below the concrete floor. PCE vapors in the adjacent commercial building were observed as high as 6,000 ug/m3. This suggests that the source of PCE vapors in the two buildings is PCE soil contamination beneath the floor and in soils around the building.

The air sampling results also indicated that PCE vapors have impacted the four residential apartments above the former dry cleaner, five business/commercial establishments at and adjacent to the site (including the deli, laundromat, pharmacy, restaurant and hair salon), and a small church (tabernacle/vestry/hall), as well as a private residence located behind (east) of the former Franklin Cleaners building at concentrations above the NYSDOH guidance value of 100 ug/m3.

Elevated levels or PCE in ambient air above the guidance value of 100 ug/m3 were also observed outdoors, behind the former Franklin Cleaners and pharmacy/restaurant, at concentrations as high as 560 ug/m3.

Post-Remediation: The use of private drinking water and irrigation wells at a private residence on Linden Avenue previously contaminated with tetrachloroethylene (PCE) has been discontinued. Following the detection of PCE in the two mentioned wells, the affected residence was connected to the Village of Hempstead public water system.

Groundwater extraction wells and quarterly sampling of a sentinel monitoring well network (ASMW-4 – ASMW-7) ensure that contamination does not impact three downgradient public water supply wells.

NYSDEC constructed a deep irrigation well (MCOL-1) for a local college located downgradient of the site. The new well replaced a shallower irrigation well (with the same ID)to eliminate any chance for potential exposures associated with the college's irrigation program. As an additional resource measure, monitoring well ASMW-7 was constructed (screened at a depth of 230-250' below ground surface) with the ability for the

college to transform it to an irrigation well. In August 2012 the college informed DEC that they would construct a wellhead at ASMW-7 and begin using it for irrigation purposes according to an agreement with the Department (via letter dated May 21, 2008).

Indoor air contamination with PCE at concentrations above NYSDOH guidelines has previously been documented in the building on-site and the neighboring commercial building. Initially, in January 1998, fans with integrated particulate and granular activated carbon (GAC) filters, designed to recirculate and filter air to remove dust and VOCs, were installed in the basement of the former dry cleaner. A wall was constructed to isolate the portion of the basement where the cooker for the dry cleaner was located and where the elevated PCE concentrations were found in soils and vapors beneath the basement floor. Similarly, in March 1998, two of these air filtration units were installed in the basement of the commercial building immediately adjacent to the former dry cleaner facility.

Today, a sub-slab depressurization system consisting of four (4) basement extraction points coupled with two (2) exterior mounted induction fans (constructed January 17, 2007) continues to operate to prevent potential indoor air exposures via soil vapor intrusion in both the grocery/deli and laundromat structures.

The remedy-designated AS system was shutdown on August 30, 2004. Shallow groundwater sampling (April 20, 2005) confirmed groundwater remediation objectives had been achieved, Class GA Groundwater Standard of 5.0 ug/l for PCE in groundwater. The SVE system was shutdown on April 20, 2005, but restarted on August 31, 2005 after sub-slab soil gas sampling (August 10-11, 2005) and analysis (compared to the NYSDOH Residential Guidance Value for PCE in indoor air of 100 ug/m3) indicated a PCE concentration of 128 ug/m3 in the Franklin Deli (South Basement) sample. The SSDS referenced above was constructed to replace the SVE system. Both the AS and SVE systems were decommissioned in March 2007, after the sub-slab depressurization system was put into operation.

Post-remedy subsurface soil sampling was conducted on June 28-29, 2005 at three (3) locations with 2.25" macro cores advanced to a depth of 22 feet below ground surface for the exterior sampling location, SB-01, and to a depth of approximately 12 feet below ground surface for the interior sampling locations, SB-02 and SB-03, located in the basement of the grocery store/delicatessen. All analytical results indicated Unrestricted Use Soil Cleanup Objectives were satisfied, as such, a land use restriction is not necessary.

Site Health Assessment - Last Update: 11/02/2012

Volatile organic compounds in the groundwater or soil may move into the soil vapor (air spaces within the soil vapor), which in turn may move into overlying buildings and affect indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to a soil vapor intrusion. A sub-slab depressurization system (a system that removes or ventilates the air beneath a building) has been installed in the on-site building to reduce impacts to the indoor air of the on-site building. In addition, sampling of an adjacent off-site commercial building and an off-site residence indicates that the on-site system has influenced the migration of soil vapor to these structures and soil vapor intrusion is no longer a concern for these buildings.

	Start		End	
OU 00				
Periodic Review	2/2/09	ACT	7/2/10	ACT
Periodic Review	6/29/11	ACT	8/11/11	ACT

Periodic Review	3/4/13	PLN	4/18/13	PLN
Reclass Pkg.	9/7/12	ACT	12/15/12	PLN
Remedial System Optimization - Site Management	10/18/11	ACT	4/1/13	PLN
Site Management	4/1/04	ACT	3/31/24	PLN
OU 01				
Remedial Action	6/3/02	ACT	3/31/04	ACT
Remedial Design	10/1/98	ACT	2/23/01	ACT
Remedial Investigation	3/1/96	ACT	3/1/98	ACT
Site Characterization	8/1/92	ACT	3/1/93	ACT
VI Evaluation	1/17/07	ACT	6/21/12	ACT

Remedy Description and Cost

Remedy Description for Operable Unit 01

A ROD was signed on March 30, 1998.
The selected remedy consists of SVE treatment of the contaminated soils under the former dry cleaning building, air sparging of shallow groundwater beneath the site, and offsite groundwater extraction and treatment at the leading edge of the groundwater plume. Elements of the selected remedy include:

- Soil vapor extraction (SVE) of tetrachloroethylene-contaminated (PCE) soils with on-site treatment of contaminated vapors using a vapor phase granular activated carbon (GAC) treatment system;
- Air sparging (AS) of shallow onsite groundwater and capture of PCE vapors by the SVE system;
- Extraction of contaminated groundwater at the leading edge of the contaminant plume for up to 20 years and treatment of water through the use of chemical precipitation and filtering of metals and air stripping of VOCs along with GAC treatment of off gasses, if necessary. In addition, the remedy included the offsite disposal of all spent carbon at a Toxic Substances Control Act- (TSCA) and Resource Conservation and Recovery Act- (RCRA) permitted incinerator.
- Other remedy elements include the installation of a deep irrigation/monitoring well on the Molloy College property;
- Long-term groundwater monitoring and groundwater use restrictions, as necessary;
- Control of indoor air contamination using air purifying, ventilation and vapor barrier systems along with a monitoring program until the source area remediation has been effectively completed.

The selected remedy resulted in untreated hazardous waste remaining both onsite and throughout a diffuse offsite plume. The offsite PCE plume is narrow, less than 500 feet in width at any point, and extends from its origin onsite south-southwest approximately 4,500 feet to the Molloy College campus. A long term monitoring program has been instituted that will monitor the effectiveness of the selected remedy and will be a component of the operation and maintenance for the site.

The remedial design of the remedy began in July 1999. Pre-design field work was done in the fall of

1999. The design of the SVE treatment system was completed in May 2000 and the remedial construction was publicly bid in August 2000. The design of the downgradient groundwater treatment system was completed in February 2001 and was bid in March 2001. The Notice to Proceed for the offsite groundwater treatment system was issued on June 3, 2002. Construction completion of the offsite system occurred in March 2004.

The offsite groundwater extraction and treatment system continues to operate and is managed under the site management plan. The onsite AS/SVE system was replaced in February 2007 with a sub-slab depressurization system (SSDS) as PCE vapors continued to be detected in the basement indoor air and sub-slab soil vapor samples even though confirmatory groundwater sampling indicated achievement of ambient water quality standards. The SSDS extracts sub-slab soil gas via two pairs of extraction points, one pair located in each of the basements of the grocery store/delicatessen and the coin-operated laundry facility.

Total Cost $2,254,000

OU 00 **Site Management Plan Approval: 04/01/2004** **Status: ACT**

DATE: 11/8/2012

Site Code: 130050 **Site Name:** Franklin Cleaners

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Form
11/8/2012

SITE DESCRIPTION

SITE NO. 130050

SITE NAME Franklin Cleaners

SITE ADDRESS: 206-208 B, South Franklin Street ZIP CODE: 11550

CITY/TOWN: Hempstead

COUNTY: Nassau

ALLOWABLE USE:

SITE MANAGEMENT DESCRIPTION

SITE MANAGEMENT PLAN INCLUDES:	YES	NO
IC/EC Certification Plan	☐	☒
Monitoring Plan	☒	☐
Operation and Maintenance (O&M) Plan	☒	☐

Periodic Review Frequency: once a year

Periodic Review Report Submittal Date: 03/04/2013

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report

DATE: 11/8/2012

Site Code: 130050 **Site Name:** Franklin Cleaners

Description of Institutional Control

Incoronata Perna
867 Taft St.
206-208B South Franklin Street
Decision Document
Block: 0366
Lot: 292
Sublot: 000
Section: 034
Subsection: 000
S_B_L Image: 34.-366-292
Monitoring Plan
O&M Plan
Site Management Plan

Description of Engineering Control

Incoronata Perna
867 Taft St.
206-208B South Franklin Street
Decision Document - Institutional Control Instrument
Block: 0366
Lot: 292
Sublot: 000
Section: 034
Subsection: 000
S_B_L Image: 34.-366-292
Groundwater Treatment System
Vapor Mitigation
Groundwater Containment

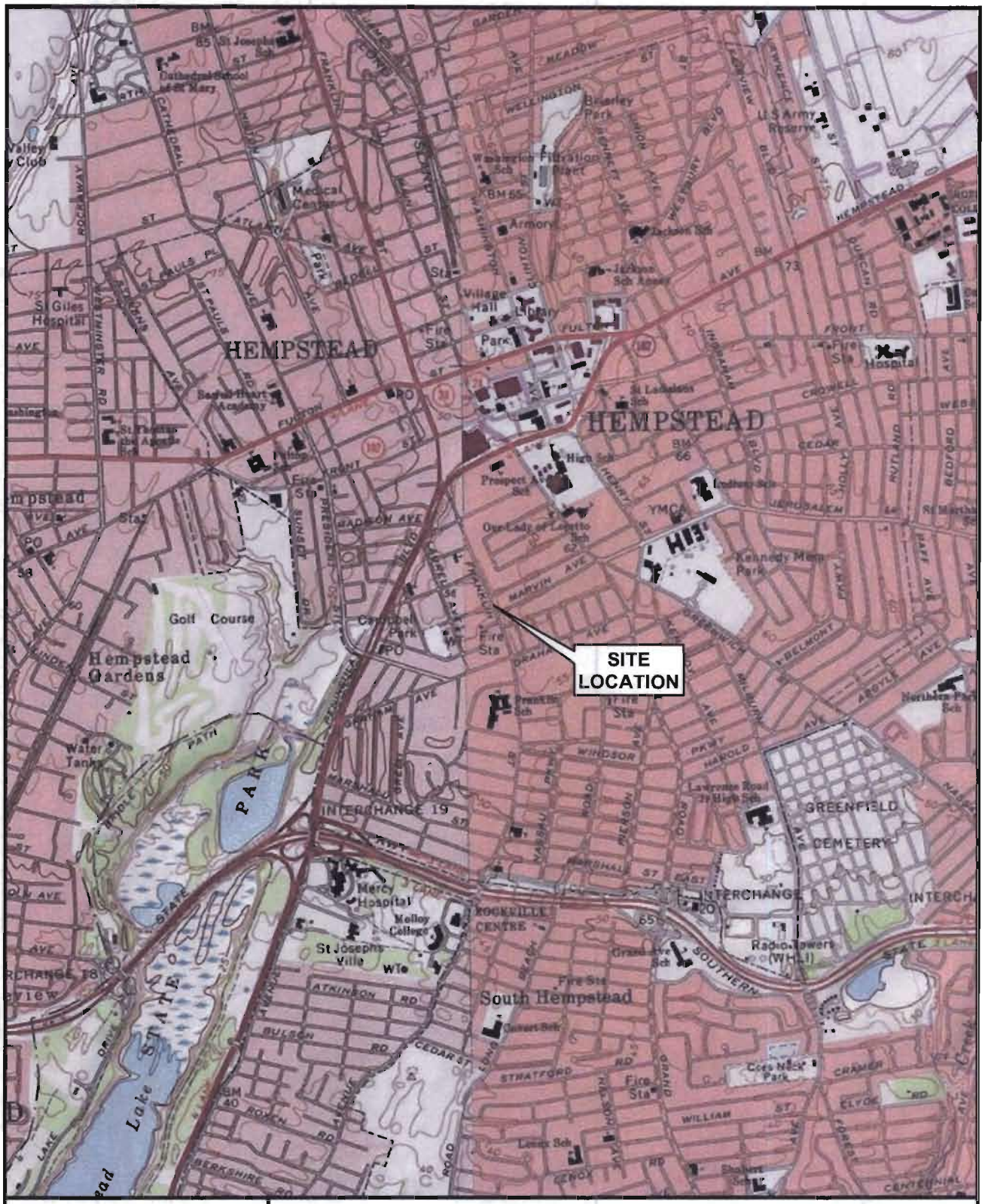

Figure 1

Site Location Map

Franklin Cleaners
Town of Hempstead, Nassau
Site No. 130050

DEPARTMENT OF ENVIRONMENTAL CONSERVATION • NEW YORK STATE •

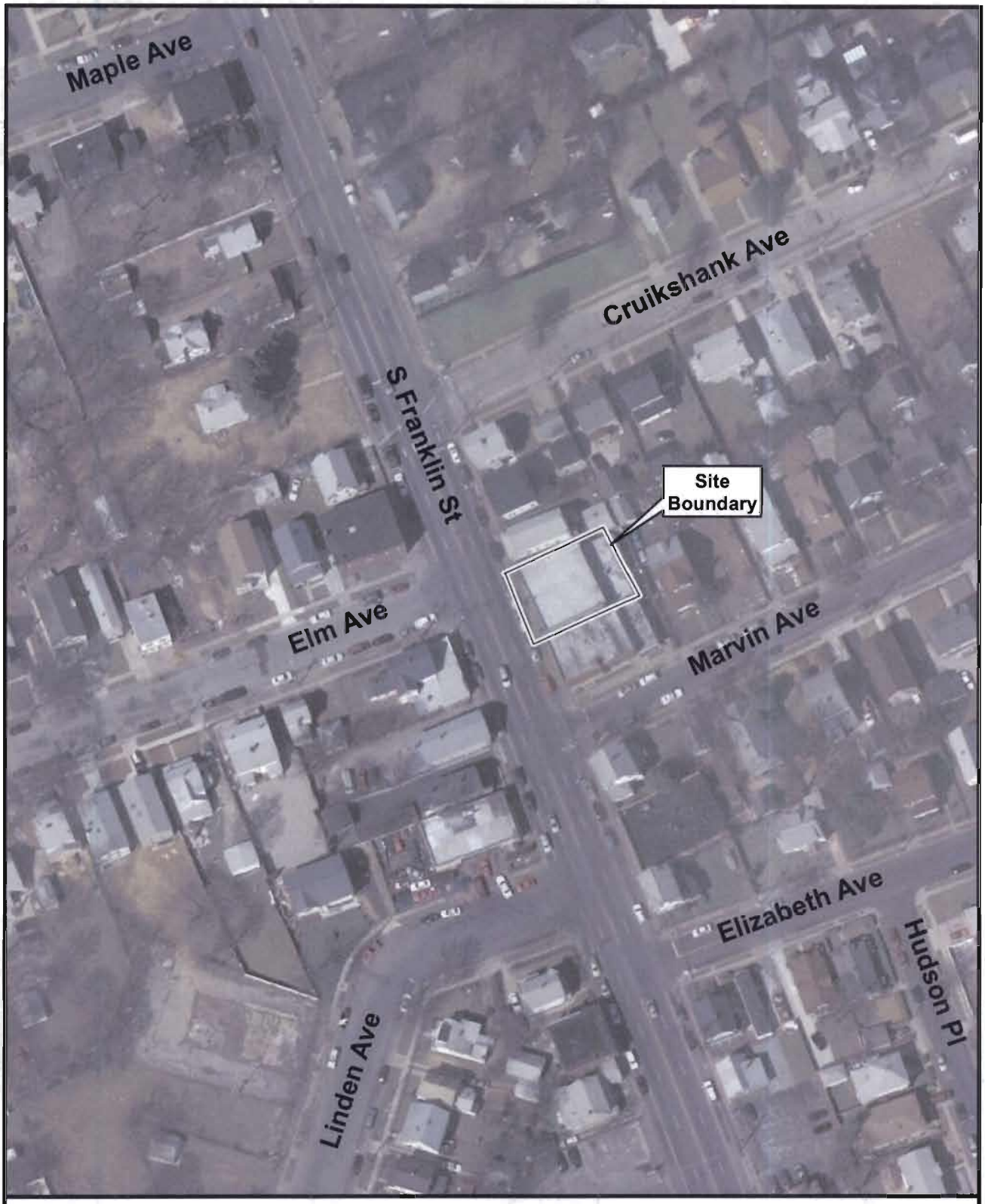

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Figure 2

Site Map

Franklin Cleaners
Town of Hempstead, Nassau
Site No. 130050

DEPARTMENT OF ENVIRONMENTAL CONSERVATION • NEW YORK STATE •

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Technical Support, 11th Floor
625 Broadway, Albany, NY 12233-7020
Phone: (518) 402-9543 • Fax: (518) 402-9547
Website: www.dec.ny.gov

Joe Martens
Commissioner

NOV 20 2012

Incoronata Perna
867 Taft Street
West Hempstead, NY 11552

Dear Sir/Madam:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (Department) must maintain a Registry of all inactive disposal sites suspected or known to contain hazardous waste. The ECL also mandates that this Department notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

DEC Site No.: 130050
Site Name: Franklin Cleaners
Site Address: 206-208B South Franklin Street, Hempstead, New York 11550

Classification change from Class 2 to Class 4.

The reason for the change is as follows:

- Hazardous waste disposal at this site was addressed by implementation of the selected remedy as identified for the site by the Record of Decision (March 1998). All construction of the components of the selected remedy was completed no later than 2004. The Final Engineering Report (FER) confirms that the remedy has been constructed consistent with the requirements in the ROD. Management of contamination remaining at the site, including any required monitoring, is and has been controlled pursuant to a Site Management Plan (SMP). Institutional controls were not required to ensure the protectiveness of the site as all on-site objectives were satisfied. The site is properly remediated and requires site management; therefore, a significant threat to public health and the environment no longer exists at the site.

Enclosed is a copy of the Department's Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry. An explanation of the site classifications is available at http://www.dec.ny.gov/chemical/8663.html. The Law allows the owner and/or operator of a site listed in the Registry to petition the Commissioner of the New York State Department of Environmental Conservation for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition.

Such petition may be addressed to:

Honorable Joseph J. Martens
Commissioner
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-1010

For additional information, please contact David Gardner, the project manager at 518-402-9813.

Sincerely,

Kelly A. Lewandowski, P.E.
Chief
Site Control Section

Enclosure

ec: R. Schick
D. Finlayson/L. Zeppetelli
A. English
K. Lewandowski
D. Gardner

bec: w/Enc.
K. Anders, NYSDOH
M. Cruden, Director, Remedial Bureau E
C. Elgut, Regional Attorney, Region 1
R. Evans, Regional Permit Administrator, Region 1
W. Parish, RHWRE, Region 1
S. Heigel, Site Control Section

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Inactive Hazardous Waste Disposal Report

Site Code	130050				
Site Name	Franklin Cleaners	**Address**	206-208 B, South Franklin Street		
Classification	04	**City**	Hempstead	**Zip**	11550
Region	1	**County**	Nassau	**Town**	Hempstead
Latitude	40 degrees, 41 minutes, 56.64 seconds			**Estimated Size**	0.1240
Longitude	-73 degrees, 37 minutes, 22.39 seconds				
Site Type	Dry Cleaner	**Disposal Area**	Structure		

Site Description

Location: The Franklin Cleaners Site is an inactive dry cleaning facility located at 206-208B South Franklin Street in the Incorporated Village of Hempstead, Nassau County, New York.

Site Features: The Site is approximately 0.25 acre in size and currently includes a two-story building with a coin-operated laundromat and delicatessen on the first floor, residential apartments on the second floor and a full basement. Portions of the first floor and basement were utilized by the former dry cleaning facility.

Current Zoning/Use(s): The surrounding properties are primarily residential with the exception of South Franklin Street which is mixed residential-commercial with numerous small businesses. The site and surrounding community is serviced by public water and sewer from the Village of Hempstead. The building was connected to the Village sewer system at the time of construction in 1956.

Historic Use(s): Franklin Cleaners had operated as a dry cleaning establishment since 1957 or prior to this date. The business name was changed to Grace Cleaners in 1990. The owner reported the occurrence of leaks and spills from the machines and equipment. The dry cleaning operation was replaced by a retail clothing store in 1991. The clothing store closed approximately 6 months later and the site was subsequently replaced by a succession of delicatessens, the latest of which currently operates at the site. In addition, a laundromat business has been continuously operating at the site since 1987. During the years when a dry cleaner operated at this property, a spent dry cleaning fluid "cooker" operated in the basement of the building.

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Based on the results of the NCDOH groundwater and soil investigations detailed above, a Preliminary Site Assessment was performed by the Nassau County Department of Public Works (NCDPW) between April 1992 and December 1992. As part of this investigation, four groundwater monitoring wells were installed as follows: monitoring well FC-1 was installed upgradient of the Site to a depth of 40 feet below ground surface and monitoring wells FC-2, FC-3 and FC-4 were installed downgradient of the Site, each to a depth of 37 feet below ground surface. Groundwater samples were subsequently collected from this groundwater monitoring well network for volatile organic compound (VOC) analysis. Groundwater monitoring well FC-2 exhibited PCE at a concentration of 83 ug/l, in exceedance of its Class GA Groundwater Standard of 5.0 ug/l. However, upgradient groundwater monitoring well FC-1 and downgradient groundwater monitoring wells FC-3 and FC-4 did not exhibit exceedances of PCE.

The site was referred to the State Superfund Program for a RI/FS on November 6, 1995. The NYSDEC issued a Record of Decision (ROD) in March 1998.

Geology and Hydrogeology: The saturated sands and gravels of the Lloyd, Magothy and lower portion of the Upper Glacial deposits form Long Island's three major aquifers. These aquifers constitute Long Island's Sole Source Aquifer, as designated by the Environmental Protection Agency (EPA) pursuant to Section 1424(e) of the Safe Drinking Water Act. A Sole Source Aquifer is defined as one which supplies at least 50% of the drinking water consumed in the area overlying the aquifer and which has no

reasonably available alternative sources of water should the aquifer become contaminated.

The Upper Glacial aquifer is approximately 80 feet thick beneath the Site and consists primarily of glacial outwash, which is generally fine to coarse sand and gravel with thin local lenses of clay. Hydraulic conductivity values average about 250 ft/day; however, this does not imply that groundwater contaminants will travel at this rate. Regional groundwater flow is predominantly south southwest.

The Magothy aquifer ranges from 300 to 600 feet thick. The unit consists mostly of fine to medium sand to clayey sand interbedded with lenses and layers of coarse sand, and sandy to solid clay. Gravel is common in the basal zone and discontinuous layers of gray lignitic clay are common in the upper zone. Hydraulic conductivities average 50 and 60 ft/day and may range as high as 190 ft/day in the basal zone.

Shallow groundwater flow in the vicinity of the Site is predominantly south-southwest. The most recent depth to water measurements have indicated that the water table is located approximately 15 feet below ground surface (December 2008) at the Site and approximately 18 feet below ground surface (March 2012) at the groundwater extraction and treatment system (GWE andTS). The GWEandTS was constructed on or about 1000 Hempstead Avenue approximately 4,125 feet south-southwest of the site to contain the leading edge of the contaminant plume. Contaminated groundwater is extracted via two (2) extraction wells (screened approximately 70-90' below ground surface) and subsequently treated through use of a shallow-tray air stripper to remove volatile organics.

Contaminants of Concern (Including Materials Disposed) Quantity

OU 01

TETRACHLOROETHYLENE (PCE)	gal
DICHLOROETHYLENE	
TRICHLOROETHENE (TCE)	

Analytical Data Available for : Groundwater, Drinking Water, Soil

Applicable Standards Exceeded for: Groundwater, Drinking Water, Soil

Site Environmental Assessment

Nature and Extent of Contamination:
Prior to remediation: Prior to remediation, the primary contaminants of concern were tetrachloroethylene (PCE) and the breakdown products: trichloroethylene (TCE) and dichloroethylene (DCE).

Groundwater: Groundwater samples were collected from three different depth ranges during this investigation, utilizing both groundwater probes and groundwater monitoring wells. Groundwater samples were collected from the water table (approximately 20 to 26 feet below grade), from an intermediate depth (33 to 57 feet below grade) and from a deeper depth (49 to 87 feet below grade). All of the samples were collected just above a significant clay layer which appears to be present throughout the study area. Direct-push sampling included: fifty-three (53) shallow groundwater samples, fifty-two (52) intermediate groundwater samples, and fifty-two (52) deep groundwater samples at locations both upgradient and downgradient of the Franklin Cleaners Site. Monitoring well sampling included samples from: seven (7) shallow groundwater monitoring wells, four (4) intermediate monitoring wells, and three (3) deep monitoring wells. Additional groundwater samples were collected from two shallow domestic wells, one intermediate domestic well, and one deep irrigation well.

All of the groundwater samples collected were analyzed for VOCs, iron, and manganese. Based on the results of the analysis, the primary compounds that exceeded groundwater standards were PCE, TCE, 1,l-DCE and 1,2-DCE. The groundwater plume which emanates from the Franklin Cleaners Site can be traced from this former dry cleaner to nearly one mile downgradient (south) of the Site where it ends on the northern boundary of the Molloy College property, just south of the Southern State Parkway. The width of the plume remains narrow throughout its length, generally less than 500 feet. In comparing the contaminant levels in the shallow, intermediate, and deep Upper Glacial aquifer, it is apparent that contamination migrates downward as it travels away from the site.

Surface/Subsurface Soil: Sampling of soils from beneath the floor slab in the interior of the basement of the former dry cleaners and in the rear alley of the cleaners by the Nassau County Department of Health (NCDOH) in 1990 showed elevated levels of PCE.

Sampling of interior soils during the Remedial Investigation (specifically December 13, 1996 - January 22, 1997) included eighteen (18) interior surface soil locations with samples collected below the concrete basement floor at a depth of 6 to 12 inches. As identified in Table C-1 of the November 1998 RI/FS report, six of the 18 surface soil samples collected exceeded the "NYSDEC TAGM 4046 Appendix A Criteria" soil cleanup objective for PCE (listed as 1400 ug/kg) with the highest concentration detected at 240,000 ug/kg.

Soil borings were advanced at ten (10) of the interior surface soil locations and continuously sampled in one- or two-foot increments to a depth of 12 feet below ground surface. As identified in Table C-2 of the November 1998 RI/FS report, only one of the subsurface soil samples collected from the interior of the building (FISB-11 at a depth of 2 - 3 feet below ground surface) exceeded the "NYSDEC TAGM 4046 Appendix A Criteria" soil cleanup objective for PCE (listed as 1,400 ug/kg) with a concentration detected at 13,000 ug/kg.

Sampling of exterior soils during the Remedial Investigation (specifically December 13, 1996 - January 27, 1997) included a total of fifteen (15) exterior surface soil locations at a depth of 6 to 12 inches (eleven samples (FOSS-02 – FOSS-07, FOSS-11 – FOSS-15) on-site in the rear of the property, two samples (FOSS-09, FOSS-10) off-site in the rear of the property, one sample (FOSS-08) in the front of the property, and one sample at a depth of 2-3 feet below ground surface (DWS1) in a dry well at the base of the rear staircase). PCE was detected in four of the surface soil samples at levels above the soil cleanup objective as indicated in Table C-4 of the November 1998 RI/FS report. The highest concentration of PCE detected in the surface soil was in sample FOSS-03 at 280,000 ug/kg. This sample also contained trichloroethene (920 ug/kg) and 1,2-dichloroethene (1200 ug/kg) above the listed "NYSDEC TAGM 4046 Appendix A Criteria" soil cleanup objectives of 700 ug/kg and 300 ug/kg, respectively.

Soil borings were advanced at nine (9) of the exterior surface soil sample locations up to a maximum depth of 21 feet below ground surface. Analytic results from samples taken at three of the soil borings (FOSB-01, FSOB-02 and FOSB-05) indicated the presence of elevated levels of PCE as shown in Table C-5 of the November 1998 RI/FS report. Analysis of a sample taken from FSOB-05 (depth of 1 - 2 feet below ground surface) identified the maximum PCE concentration detected at 450,000 ug/kg. At this soil boring, FSOB-05, PCE contaminant levels were highest near ground surface and decreased with depth down to a concentration of 5900 ug/kg at a depth of 11 - 12 feet below ground surface. Based on the December 1996/January 1997 sampling events, elevated levels of contamination appear to be limited to an area immediately adjacent to the back door of the former dry cleaning facility. This area is approximately 250-300 square feet.

Indoor/Ambient Air:
One ambient air sample (FIA-l) was collected in the basement of the former dry cleaner at the location of the former "cooker" over an 8-hour period using a SUMMA® canister with a preset manifold flow rate set at 11.5 ml/rnin. The air sample was analyzed for VOCs by Method EPA TO-14. Based on the results of the air sample collected from the basement of the building, the New York State Department of Health (NYSDOH) recommended that additional air sampling should be conducted throughout the commercial building, at adjacent outdoor areas and at adjacent residential and commercial buildings to define the extent of ambient air contamination by PCE.

The results of indoor air sampling indicated that PCE vapors have impacted the air in the basement and first floor levels of the former Franklin Cleaners building and adjacent commercial building (pharmacy and restaurant) at levels greater than the NYSDOH action level of 1,000 ug/m3. Analysis of a passive sampling device placed over a hole in the basement floor of the former dry cleaner shop (location PSD number 15, Sample A and B) revealed concentrations of PCE at approximately 71,000 and 75,000 ug/m3, indicative of elevated soil vapor concentrations below the concrete floor. PCE vapors in the adjacent commercial building were observed as high as 6,000 ug/m3. This suggests that the source of PCE vapors in the two buildings is PCE soil contamination beneath the floor and in soils around the building.

The air sampling results also indicated that PCE vapors have impacted the four residential apartments above the former dry cleaner, five business/commercial establishments at and adjacent to the site (including the deli, laundromat, pharmacy, restaurant and hair salon), and a small church (tabernacle/vestry/hall), as well as a private residence located behind (east) of the former Franklin Cleaners building at concentrations above the NYSDOH guidance value of 100 ug/m3.

Elevated levels or PCE in ambient air above the guidance value of 100 ug/m3 were also observed outdoors, behind the former Franklin Cleaners and pharmacy/restaurant, at concentrations as high as 560 ug/m3.

Post-Remediation: The use of private drinking water and irrigation wells at a private residence on Linden Avenue previously contaminated with tetrachloroethylene (PCE) has been discontinued. Following the detection of PCE in the two mentioned wells, the affected residence was connected to the Village of Hempstead public water system.

Groundwater extraction wells and quarterly sampling of a sentinel monitoring well network (ASMW-4 – ASMW-7) ensure that contamination does not impact three downgradient public water supply wells.

NYSDEC constructed a deep irrigation well (MCOL-1) for a local college located downgradient of the site. The new well replaced a shallower irrigation well (with the same ID)to eliminate any chance for potential exposures associated with the college's irrigation program. As an additional resource measure, monitoring well ASMW-7 was constructed (screened at a depth of 230-250' below ground surface) with the ability for the college to transform it to an irrigation well. In August 2012 the college informed DEC that they would construct a wellhead at ASMW-7 and begin using it for irrigation purposes according to an agreement with the Department (via letter dated May 21, 2008).

Indoor air contamination with PCE at concentrations above NYSDOH guidelines has previously been documented in the building on-site and the neighboring commercial building. Initially, in January 1998, fans with integrated particulate and granular activated carbon (GAC) filters, designed to recirculate and filter air to remove dust and VOCs, were installed in the basement of the former dry cleaner. A wall was constructed to isolate the portion of the basement where the cooker for the dry cleaner was located and where the elevated PCE concentrations were found in soils and vapors beneath the basement floor. Similarly, in March 1998, two of these air filtration units were installed in the basement of the commercial building immediately adjacent to the former dry cleaner facility.

Today, a sub-slab depressurization system consisting of four (4) basement extraction points coupled with two (2) exterior mounted

induction fans (constructed January 17, 2007) continues to operate to prevent potential indoor air exposures via soil vapor intrusion in both the grocery/deli and laundromat structures.

The remedy-designated AS system was shutdown on August 30, 2004. Shallow groundwater sampling (April 20, 2005) confirmed groundwater remediation objectives had been achieved, Class GA Groundwater Standard of 5.0 ug/l for PCE in groundwater. The SVE system was shutdown on April 20, 2005, but restarted on August 31, 2005 after sub-slab soil gas sampling (August 10-11, 2005) and analysis (compared to the NYSDOH Residential Guidance Value for PCE in indoor air of 100 ug/m3) indicated a PCE concentration of 128 ug/m3 in the Franklin Deli (South Basement) sample. The SSDS referenced above was constructed to replace the SVE system. Both the AS and SVE systems were decommissioned in March 2007, after the sub-slab depressurization system was put into operation.

Post-remedy subsurface soil sampling was conducted on June 28-29, 2005 at three (3) locations with 2.25" macro cores advanced to a depth of 22 feet below ground surface for the exterior sampling location, SB-01, and to a depth of approximately 12 feet below ground surface for the interior sampling locations, SB-02 and SB-03, located in the basement of the grocery store/delicatessen. All analytical results indicated Unrestricted Use Soil Cleanup Objectives were satisfied, as such, a land use restriction is not necessary.

Site Health Assessment

Volatile organic compounds in the groundwater or soil may move into the soil vapor (air spaces within the soil vapor), which in turn may move into overlying buildings and affect indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to a soil vapor intrusion. A sub-slab depressurization system (a system that removes or ventilates the air beneath a building) has been installed in the on-site building to reduce impacts to the indoor air of the on-site building. In addition, sampling of an adjacent off-site commercial building and an off-site residence indicates that the on-site system has influenced the migration of soil vapor to these structures and soil vapor intrusion is no longer a concern for these buildings.

Owners

Current Owner(s)

INCORONATA PERNA

Incoronata Perna

867 TAFT STREET

WEST HEMPSTEAD NY 11552

Disposal Owner(s)

INCORONATA PERNA

867 TAFT STREET

WEST HEMPSTEAD NY 11552

Operators

Current Operator(s)

INCORONATA PERNA

206-208B S. FRANKLIN ST.

HEMPSTEAD NY 11550

Franklin Cleaners/Grace Cleaners

206-208 B - South Franklin Street

Hempstead NY 11550

New York State Department of Environmental Conservation

PUBLIC NOTICE | **State Superfund Program**

Receive Site Information by Email. See next page to Learn How.

Site Name: Franklin Cleaners **December 11, 2012**
Site No. 130050 **Tax Map No.** 34-366-292
Site Location: 206-208B South Franklin Street, Hempstead, New York 11550

Inactive Hazardous Waste Disposal Site Classification Notice

The Inactive Hazardous Waste Disposal Site Program (the State Superfund Program) is the State's program for identifying, investigating, and cleaning up sites where the disposal of hazardous waste may present a threat to public health and/or the environment. The New York State Department of Environmental Conservation (Department) maintains a list of these sites in the Registry of Inactive Hazardous Waste Disposal Sites (the "Registry"). The site identified above, and located on a map on the reverse side of this page, was recently reclassified on the Registry as a Class 4 site as it no longer presents a significant threat to public health and/or the environment for the following reason(s):

- Hazardous waste disposal at this site was addressed by implementation of the selected remedy as identified for the site by the Record of Decision (March 1998). All construction of the components of the selected remedy was completed no later than 2004. The Final Engineering Report (FER) confirms that the remedy has been constructed consistent with the requirements in the ROD. Management of contamination remaining at the site, including any required monitoring, is and has been controlled pursuant to a Site Management Plan (SMP). Institutional controls were not required to ensure the protectiveness of the site as all on-site objectives were satisfied. The site is properly remediated and requires site management; therefore, a significant threat to public health and the environment no longer exists at the site.

If you own property adjacent to this site and are renting or leasing your property to someone else, please share this information with them. If you no longer wish to be on the contact list for this site or otherwise need to correct our records, please contact the Department's Project Manager listed below.

FOR MORE SITE INFORMATION

Additional information about this site can be found using the Department's "Environmental Site Remediation Database Search" engine which is located on the internet at: www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3

Comments and questions are always welcome and should be directed as follows:

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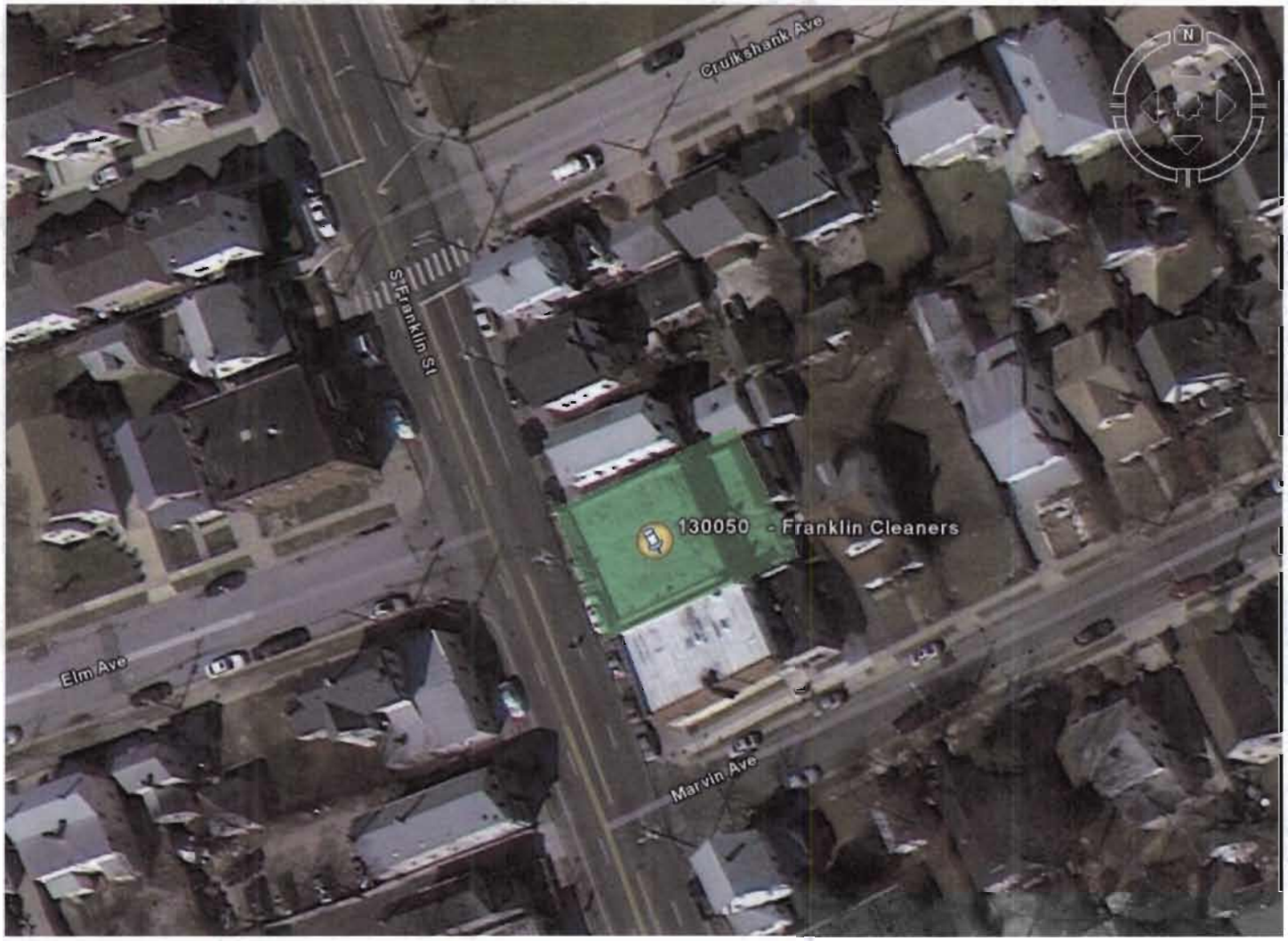
The Department is sending you this notice in accordance with Environmental Conservation Law Article 27, Title 13 and its companion regulation (6 NYCRR 375-2.7(b)(6)(ii)) which requires the Department to notify all parties on the contact list for this site of this recent action.

Approximate Site Location
Franklin Cleaners
Site ID 130050
206-208B South Franklin Street
Hempstead, NY 11550



Receive Site Updates by Email

Have site information such as this public notice sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: www.dec.ny.gov/chemical/61092.html . It's *quick*, it's *free*, and it will help keep you *better informed*.

As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

You may continue also to receive paper copies of site information for a time after you sign up with a county listserv, until the transition to electronic distribution is complete.

Note: Please disregard if you received this notice by way of a county email listserv.

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West Hempstead, NY 11552

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