

REMEDIAL DESIGN



## **WORK PLAN**

### **Franklin Cleaners Site**

Village of Hempstead  
Nassau County, New York  
(Site Registry No. 1-30-050)

**CONTRACT NO. D003600-10**

JUNE 1999



**Dvirka and Bartilucci**

CONSULTING ENGINEERS

A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

**REMEDIAL DESIGN  
WORK PLAN**

**FRANKLIN CLEANERS, SITE 1-30-050  
VILLAGE OF HEMPSTEAD  
NASSAU COUNTY, NEW YORK**

**WORK ASSIGNMENT NO. D003600-10**

**PREPARED FOR**

**NEW YORK STATE DEPARTMENT  
OF ENVIRONMENTAL CONSERVATION**

**BY**

**DVIRKA AND BARTILUCCI CONSULTING ENGINEERS  
WOODBURY, NEW YORK**

**JUNE 1999**

**REMEDIAL DESIGN  
WORK PLAN  
FRANKLIN CLEANERS SITE  
HEMPSTEAD, NEW YORK**

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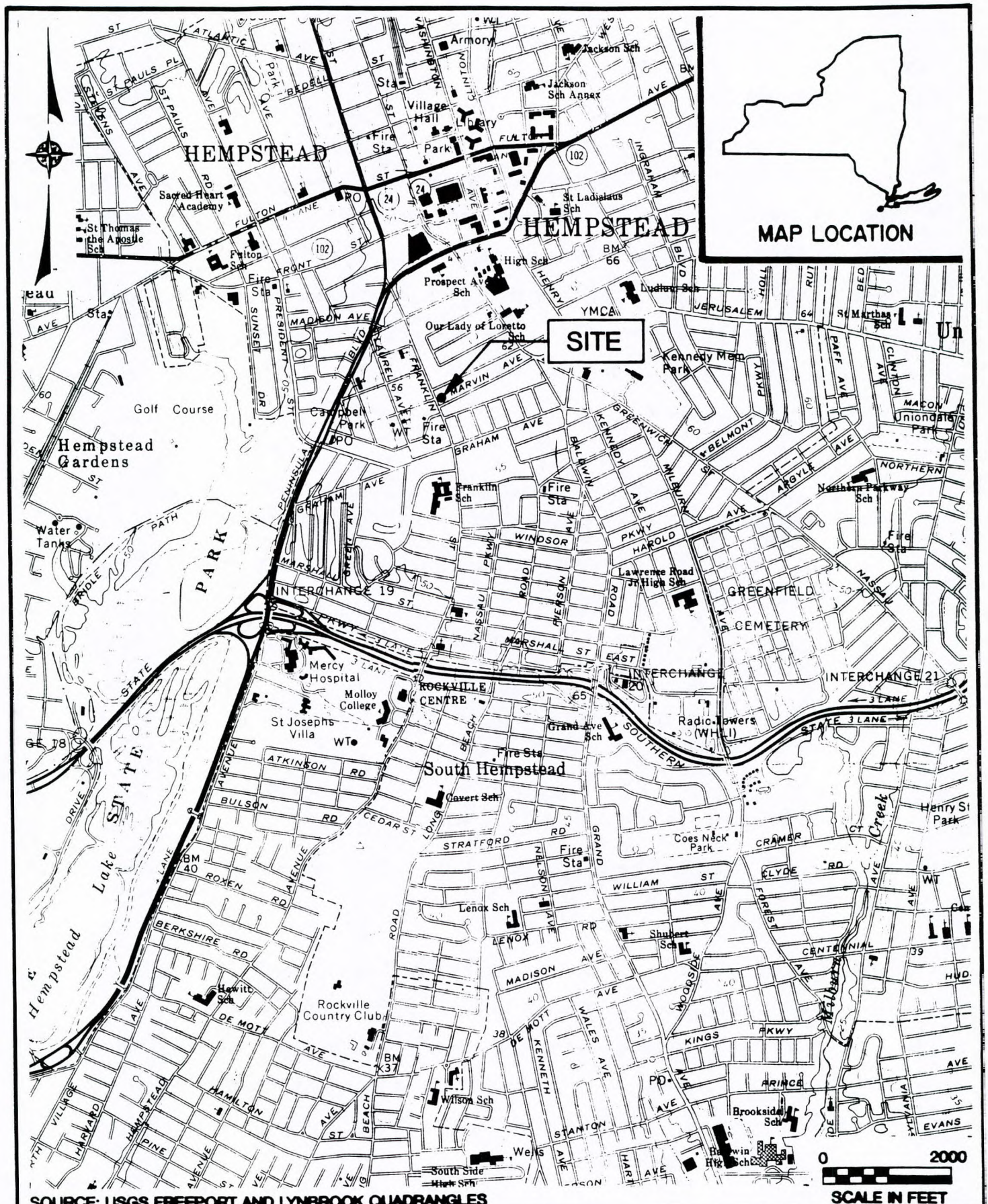
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## 1.0 INTRODUCTION

As part of New York State's program to investigate and remediate hazardous waste sites, the New York State Department of Environmental Conservation (NYSDEC) has issued a work assignment to Dvirka and Bartilucci Consulting Engineers of Woodbury, New York under its Superfund Standby Contract with NYSDEC to provide a scope of work and budget for remedial design services in connection with the Franklin Cleaners Site located in the Village of Hempstead, New York (see Figure 1-1). The site is a Class 2 New York State Superfund site (Registry No. 1-30-050). The scope of work includes:

- Predesign studies, including a pump test and plume refinement investigation, and preparation of a groundwater extraction and treatment system design report;
- Design of a replacement well for the existing irrigation well on the Molloy College campus;
- Preparation of plans and specifications for an on-site soil vapor extraction (SVE) and air sparging system;
- Preparation of plans and specifications for an off-site groundwater extraction and treatment system;
- Citizen participation activities and preaward services in support of both contracts (i.e., SVE/air sparging and groundwater extraction and treatment); and
- Ambient air monitoring and replacement of filter media in indoor air purifying units at the site.

The work for this site is being performed with funds allocated under the New York State Superfund Program. This document, entitled "Remedial Design Work Plan for the Franklin Cleaners Site," has been prepared in accordance with NYSDEC guidance and includes a detailed description of tasks, schedule and budget for the project. It identifies key project milestones and presents the D&B project team organizational structure.



SOURCE: USGS FREEPORT AND LYNBROOK QUADRANGLES



FRANKLIN CLEANERS SITE  
HEMPSTEAD, NEW YORK

**SITE LOCATION MAP**



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FIGURE 1-1

## **2.0 BACKGROUND INFORMATION**

### **2.1 Site Location and Description**

The Franklin Cleaners Site is a former dry cleaning facility located at 206-208B South Franklin Street in the Incorporated Village of Hempstead, Nassau County, New York. The site is approximately 1/8 acre in size and includes a two-story building with residential apartments on the second floor, and a coin laundromat and delicatessen occupying the first floor. Portions of the first floor and basement were utilized by the former dry cleaning facility (see Figure 2-1).

The surrounding properties are primarily residential with the exception of South Franklin Street which is mixed residential and small business. The site and surrounding community is serviced by public water and sewers from the Village of Hempstead. The building was connected to the Village Sewer system at the time of construction in 1956.

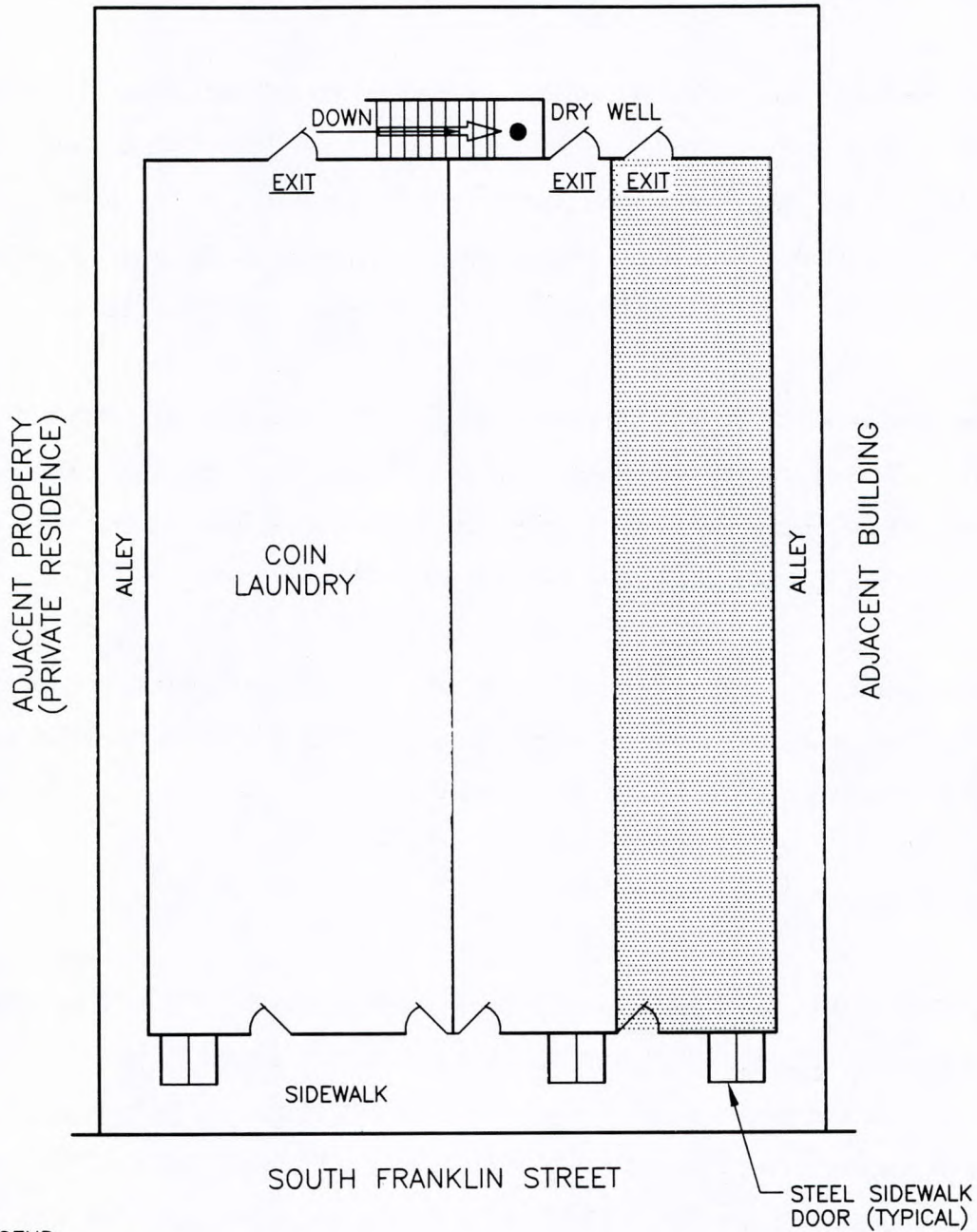
Access to the site is from South Franklin Street. The area immediately adjacent to the building at the site is almost entirely covered with concrete except for portions at the rear of the property. The rear portion of the site was recently fenced.

### **2.2 Site History**

In March 1990, the Nassau County Department of Health (NCDOH) investigated a complaint of tainted drinking water from a private residence on Linden Avenue. The residence was found to have two private water supply wells: a drinking water well (approximately 45 feet deep) and an irrigation well (approximately 32 feet deep). The water supply well was sampled and found to contain tetrachloroethene (PCE) at 5,500 parts per billion (ppb). The irrigation well contained PCE at 29,000 ppb. The drinking water and groundwater standard for PCE is 5 micrograms per liter (ug/l). The residence was connected to the Village of Hempstead public water supply system following the PCE detection.



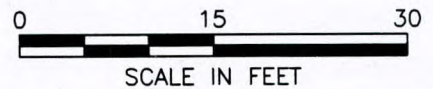
ADJACENT PROPERTY  
(PRIVATE RESIDENCE)



**LEGEND:**



AREA UTILIZED BY FORMER  
DRY CLEANER



FRANKLIN CLEANERS SITE  
HEMPSTEAD, NEW YORK

**SITE PLAN**

FIGURE 2-1

DIR: 1640 FILE: 1640-3a RH-1/4/99



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Since the Franklin Cleaners Site is located upgradient of the wells on Linden Avenue, NCDOH performed an inspection of the dry cleaner premises and collected surface soil samples from the basement of the existing building and at the rear of the former dry cleaner property. Soil samples from the basement were found to contain PCE concentrations as high as 9,400 ppb. A sample from the rear of the property contained PCE at 650,000 ppb, trichloroethene (TCE) at 1,700 ppb and dichloroethene (DCE) at 680 ppb.

In 1993, a Preliminary Site Assessment was performed by the Nassau County Department of Public Works (NCDPW). As part of this investigation, four groundwater wells were installed. One of the wells, FC-1, was installed upgradient of the former dry cleaner site to a depth of 40 feet. The other three wells, FC-2, FC-3 and FC-4, were installed downgradient of the site, each to a depth of 37 feet. Groundwater samples collected from the wells showed that monitoring well FC-2 contained PCE at 83 ppb and that none of the contaminants of concern were detected in FC-1, FC-3 and FC-4.

The site was listed on the Registry of Inactive Hazardous Waste Disposal Sites in New York State on June 17, 1993. In response to a determination that the presence of hazardous waste at the site presents a significant threat to human health and the environment, the New York State Department of Environmental Conservation (NYSDEC) completed a Remedial Investigation/Feasibility Study (RI/FS). The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted between December 1996 and April 1997. A draft RI report was issued in October 1997 and a final RI report was issued in February 1998.

Based on the results of interior soil sampling, elevated levels of contamination exist primarily in the vicinity of the former "cooker" and other dry cleaning equipment which was located near the concrete pad in the southeast corner of the basement. The elevated levels found here indicate that PCE spills or disposal occurred in this portion of the basement. The basement floor of the building is in poor condition with numerous cracks and broken concrete, which apparently allowed the spilled PCE to migrate to the underlying soil. The contamination in the vicinity of the "cooker" appears to be limited to the surface soil and shallow subsurface soil at

less than 4 feet. Although the surface soil samples exhibited very high levels of PCE, the samples collected with depth, in general, did not exhibit elevated levels of PCE. The area of significant contamination appears to be approximately 450 to 500 square feet.

As part of the RI, surface soil samples were collected along the rear (eastern) portion of the building. Subsurface soil borings were constructed at nine of the surface soil sample locations. The borings were constructed and continuously sampled to a depth of approximately 20 feet below grade. 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 to 300 square feet. Based on the subsurface sample results and the significant groundwater contamination associated with this site, elevated PCE contamination in these soils is likely to be present down to the depth of the water table (approximately 20 feet).

The results of the groundwater sampling conducted as part of the RI are summarized below.

#### Shallow Upper Glacial Aquifer

Elevated levels of PCE were detected in the shallow groundwater in the immediate vicinity of the Franklin Cleaners Site. The highest concentration detected was 1,502 ppb in the well installed on site. The two shallow domestic wells sampled downgradient of the site, 6-Lind-1 and Feld-1, showed PCE at 780 ppb and 100 ppb, respectively. VOC levels decrease in concentration in the shallow aquifer downgradient (south) of the site to below 5 ppb approximately 3,000 feet downgradient of the site.

#### Intermediate Upper Glacial Aquifer

Elevated levels of VOCs were detected farther downgradient of the site in the intermediate depth samples collected from the Upper Glacial aquifer. Concentrations of PCE greater than 1,000 ppb were detected approximately 1,000 feet downgradient of the site at groundwater probes P-21 and P-23 and at monitoring well MW-3I. Concentrations greater than

100 ppb were detected at a distance of approximately 3,500 feet downgradient of the site in the intermediate zone.

#### Deep Upper Glacial Aquifer

Elevated levels of VOCs were detected in the deep Upper Glacial aquifer both upgradient and downgradient of the site. Concentrations in the immediate vicinity of the site in the deep zone exhibited slightly elevated VOC levels up to 72 ppb. Overall, the deep aquifer data indicates a discontinuous plume of highly contaminated groundwater, greater than 1,000 ppb, migrating southerly from the site. Concentrations greater than 100 ppb have been detected in the deep Upper Glacial aquifer as far as 4,500 feet downgradient of the site.

#### General Groundwater Observations

The groundwater plume which emanates from the Franklin Cleaners Site can be traced to nearly 1 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. Due to the presence of a low permeability unit at the interface of the Upper Glacial and Magothy aquifers, it is unlikely that significant contamination associated with the Franklin Cleaners Site has migrated into the Magothy aquifer.

Air data collected from the building which included the former Franklin Dry Cleaners and the adjacent building to the south showed PCE levels in exceedance of the NYSDOH guideline for tetrachloroethylene in air. Analysis of samples collected from residences adjacent to the former cleaners showed levels of PCE which were below the NYSDOH proposed ambient air guidance value.

### Interim Remedial Measure

An Interim Remedial Measure (IRM) was implemented in January 1998 to address the elevated levels of PCE found in the ambient air samples collected in the basement of the former dry cleaners, as well as in air samples collected on the first and second floors of the Franklin property. 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 levels were found in soils beneath the basement floor.

### **3.0 SCOPE OF WORK**

The services to be provided by Dvirka and Bartilucci Consulting Engineers (D&B) include work plan preparation (Task 1); predesign studies (Task 2); replacement of the Molloy College irrigation well (Task 3); preparation of plans and specifications for two separate contracts (i.e., the SVE/air sparging system, and the groundwater extraction and treatment system) (Tasks 4 and 5); citizens participation activities (Task 6); and pre-award services (Task 7) in support of both contracts, and ambient air monitoring and replacement of the filter media for indoor air purifying units (Task 8).

Further description of sampling procedures, decontamination procedures and monitoring well installation procedures, as they pertain to the scope of work presented below, are provided in the Generic Work Plan prepared by D&B dated February 1996.

#### **3.1 Task 1 – Remedial Design Work Plan**

This task involves preparation of draft and final versions of this work plan and participating in a scoping meeting at the site with a representative of the NYSDEC. This task also includes preparing a solicitation request and obtaining prices for replacement of the irrigation well at Molloy College. In order to define the scope of work associated with replacement of the irrigation well and identify a viable means of disposal of pump test discharge water, a site inspection was conducted and meetings were held with representatives of Molloy College, the Village of Rockville Centre, the Nassau County Department of Public Works and the New York State Department of Transportation.

#### **3.2 Task 2 – Predesign Studies**

This task consists of four subtasks: Subtask 2A – Geoprobe Investigation, Subtask 2B – Pump Test, Subtask 2C – Coordination with Agencies, and Subtask 2D – Preparation of the Groundwater Extraction and Treatment System Design Report. Each subtask is described below.

### 3.2.1 Subtask 2A – Geoprobe Investigation

Up to six groundwater probes will be advanced in the vicinity of the leading edge of the contaminant plume utilizing the Geoprobe system in order to better define the depth and width of the plume. Figure 3-1 shows the proposed sample locations. It is anticipated that the groundwater samples will be collected at depths of 20 feet (water table), 50 feet (intermediate depth) and 80 feet (assumed top of clay layer) below ground surface. All the groundwater samples (i.e., up to 18) will be analyzed for chlorinated volatile organic compounds by USEPA Method 601.

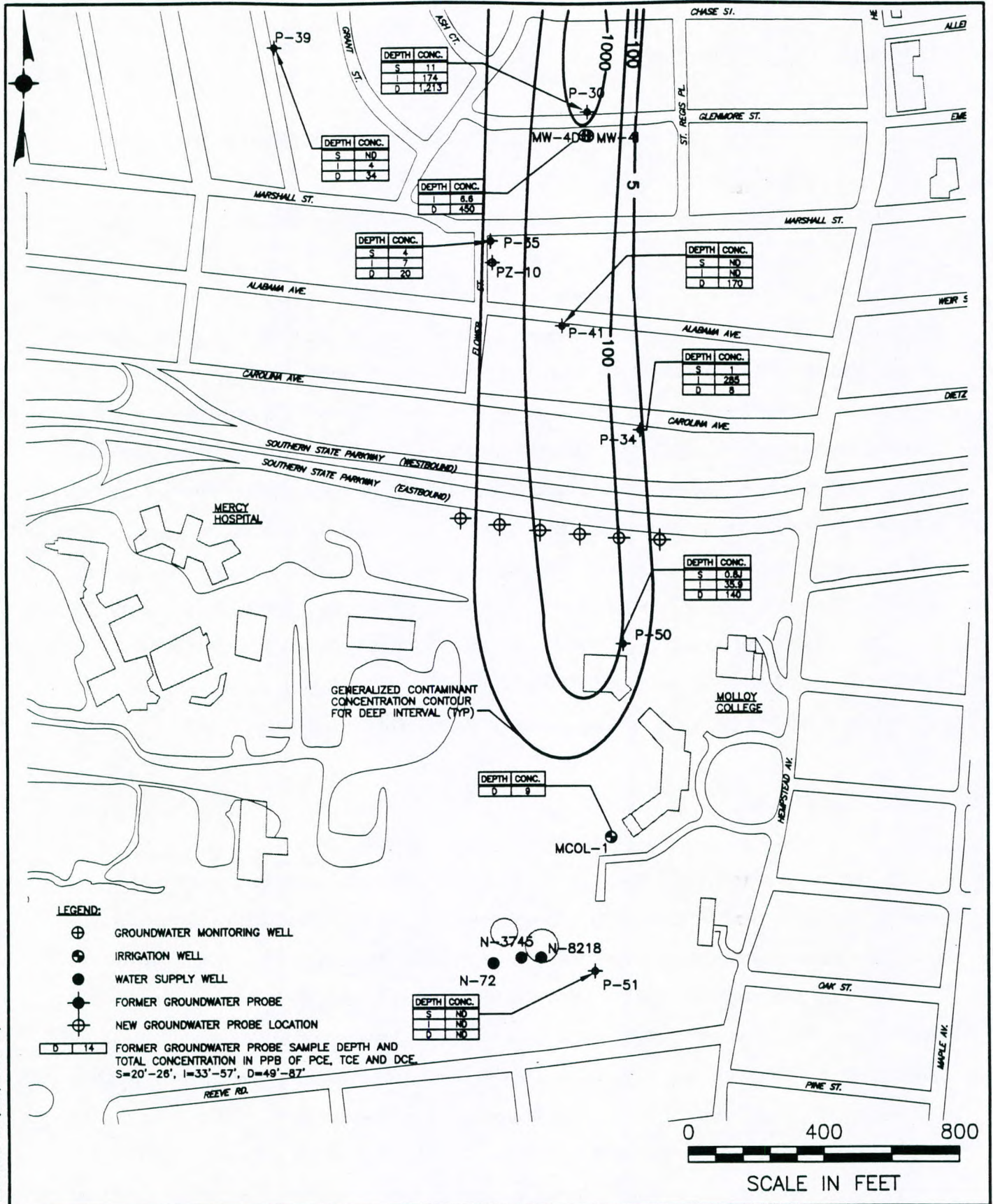
The following assumptions have been made in connection with the Geoprobe investigation:

- The Geoprobe field activities will be completed in 2 days.
- Standard laboratory turn-around time of 28 days will be provided.
- There will be no restrictions to access for Geoprobe sampling at the proposed locations. Access to the parkway will be via the Peninsula Boulevard entrance (Exit 19). The Grand Avenue exit (Exit 20) will be used to exit the parkway. The permit obtained by NYSDEC will be the only permit or approval required to do the work (see Appendix C). Lane closure will not be required. No insurance coverage will be required by the New York State Department of Transportation and the New York State Office of Parks, Recreation and Historic Presentation. Any signs required by NYSOPRHP or NYSDOT will be supplied by NYSDOT.
- Decontamination wastewater will be disposed of on-site.
- Underground clearance for utilities will be provided at no charge.
- Four (4) hours of standby time will be required for the geoprobe contractor to coordinate with the NYSDOT.

### 3.2.2 Subtask 2B – Pump Test

The purpose of the pump test is to determine the hydraulic characteristics of the Upper Glacial aquifer in order to design an effective groundwater extraction system to remediate the contaminant plume migrating from the Franklin Cleaners Site. The pump test will include the following activities:

FILE: 1640-2A (SDM/5-28-99)



FRANKLIN CLEANERS SITE  
HEMPSTEAD, NEW YORK

# GROUNDWATER PROBE LOCATION MAP



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FIGURE 3-1

## Installation of Observation Wells

Two observation wells will be installed in the vicinity of the proposed extraction well.

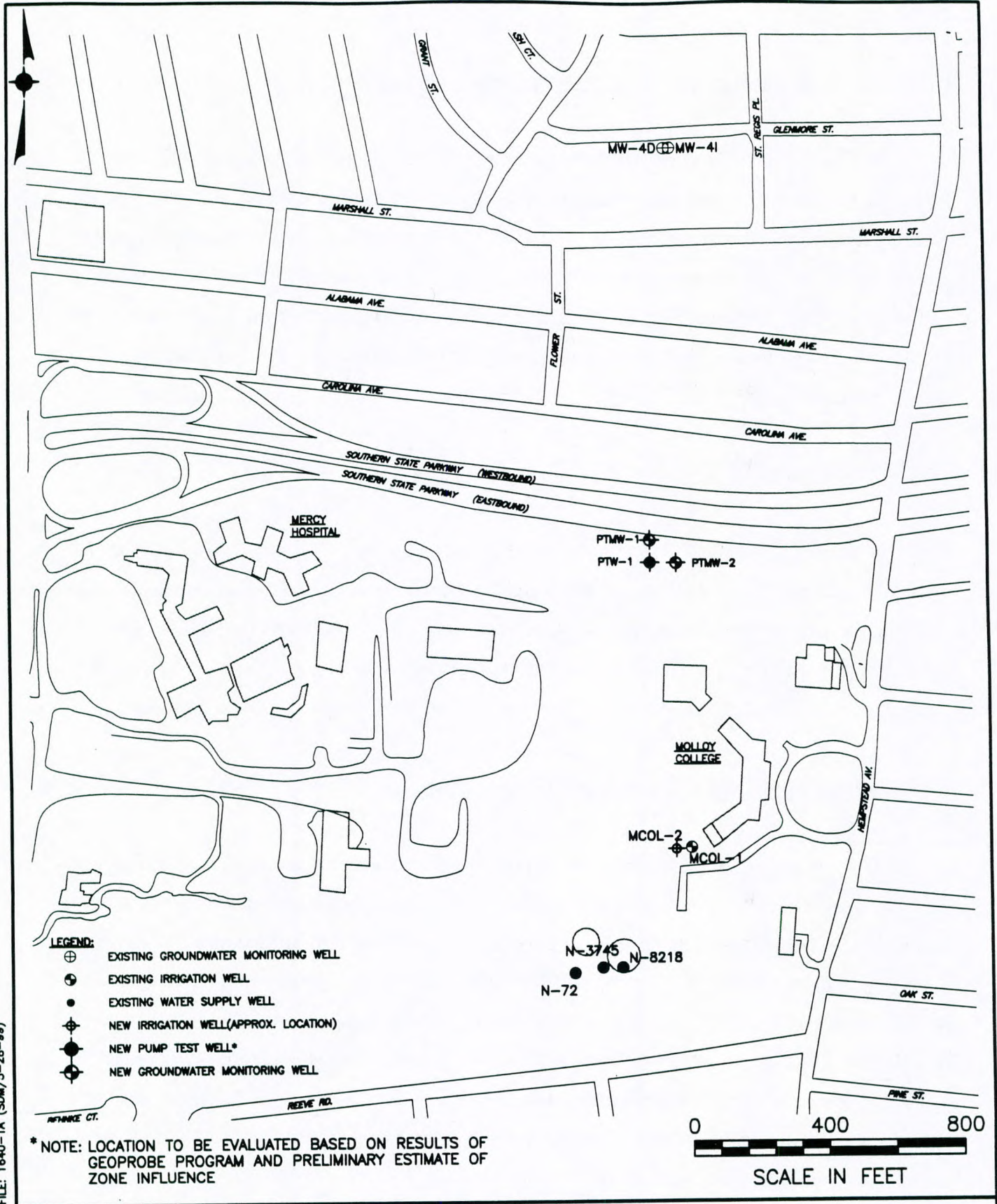
### PTMW-1 – located approximately 10 feet north of extraction well (see Figure 3-2)

Boring PTMW-1 will be advanced to the Gardiners Clay unit (or equivalent low permeability transition between the Upper Glacial aquifer and the Magothy aquifer) (approximately 80 to 120 feet below ground surface). The boring will be sampled at 5-foot intervals beginning at ground surface to a depth of 50 feet. Below 50 feet the boring will be sampled continuously at 2-foot intervals until the top of the Magothy formation is reached in order to determine the thickness and characteristics of the confining unit. Five split spoon samples will be selected for grain size analysis from the planned depth interval for the pump test well screen (approximately 80 to 100 feet below ground surface) in order to determine the appropriate screen size. The boring will be backfilled with bentonite pellets to the top of the low permeability unit (approximately 100 feet below ground surface). A 2-inch ID PVC well will be installed with 20 feet of screen (approximately 80 feet to 100 feet below ground surface) and approximately 80 feet of riser. A locking protective casing will be installed.

### PTMW-1 Contingency

*If the low permeability layer is non-existent based upon examination of split spoon samples, the boring will be terminated at a maximum of 120 feet below ground surface or at a mutually agreed upon depth based on field conditions. Identification of the contact between the Upper Glacial and Magothy aquifers will be attempted based upon the samples obtained. The depth of this contact will be treated as the top of the low permeability layer for the purpose of determining the depths of the other wells. If the contact can not be determined, a depth of 100 feet below ground surface will be treated as the top of the low permeability layer for the purpose of determining the depths of the other wells. The budget for installation of PTMW-1 is based on successful implementation of the base scope of work described above. The additional cost for the contingency work, if required, is not included.*





FILE: 1640-1A (SDM/5-28-99)

FRANKLIN CLEANERS SITE  
HEMPSTEAD, NEW YORK

### WELL LOCATION MAP

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FIGURE 3-2

PTMW-2 – located approximately 25 feet west or east of extraction well (see Figure 3-2)

Boring PTMW-2 will be advanced to a depth of 10 feet below the top of the screen in PTMW-1 (approximately 90 feet below ground surface). Split spoon samples will be collected continuously from the depth of the top of the PTMW-1 screen (approximately 80 feet below ground surface) to the bottom of the PTMW-2 boring (approximately 90 feet below ground surface). A 2-inch ID monitoring well will be installed with 20 feet of screen (approximately 70 to 90 feet below ground surface) and approximately 70 feet of riser. A locking protective casing will be installed.

PTMW-2 Contingency

*If sampling of PTMW-1 is insufficient to characterize the low permeability layer or the proposed screened zone of the extraction well, PTMW-2 may be advanced and sampled to a depth necessary to provide adequate information (as deep as 120 feet). The budget for installation of PTMW-1 is based on successful implementation of the base scope of work described above. The additional cost for the contingency work, if required, is not included.*

Installation and Pre-testing of Pump Test Well (see Figure 3-2)

The 6-inch diameter pumping well will be constructed with Schedule 80 PVC casing and stainless steel wire-wound well screen. The pumping well will be screened from approximately 80 to 100 feet below ground surface. Well development activities will include an approximately 4-hour pumping pre-test to determine maximum sustainable yield from the well and responsiveness of the nearby monitoring wells. During the pre-test, one groundwater sample will be collected from the pumping well and analyzed for chlorinated volatile organic compounds by USEPA Method 601, to determine discharge disposal requirements, and dissolved iron and manganese in accordance with Superfund CLP Inorganics Methods 236.1 and 243.2, respectively, to determine treatment system requirements.

For 7 days prior to the pump test, water elevation measurements will be collected continuously from the two new monitoring wells, the pumping well and existing wells MW-4I and MW-4D using electronic data loggers.

### Pump Test and Recovery

The pump test will be run continuously for approximately 24 hours. Pumping will be performed at approximately 50, 100 and 150 gallons per minute for 8-hour intervals or until drawdown stabilizes in the monitoring wells for a minimum of 30 minutes, whichever occurs first. Groundwater elevations will be recorded continuously on a logarithmic time scale during the pump test. The elevations will be recorded in the two new monitoring wells, the pumping well and existing wells MW-4I and MW-4D using electronic data loggers. In addition, as a backup, water elevation measurements will be obtained manually from each well at 1-hour intervals during the pump test. Continuous electronic and manual monitoring of groundwater elevations will be continued during the recovery period. Monitoring during the recovery period will be conducted for 24 hours or until groundwater elevations return to prepumping levels, whichever occurs first.

After the recovery period, the pump, piping, flow metering devices and generator will be removed; all data will be downloaded from the data loggers; and the pressure transducers will be removed from the pumping well and wells MW-4I and MW-4D. Continuous electronic measurements of groundwater elevations will be collected in the two new monitoring wells for an additional 3 days. After 3 days the data will be downloaded, the pressure transducers will be removed, and all remaining equipment will be demobilized.

D&B will have a survey prepared to document the horizontal and vertical locations of the two new monitoring wells and pump test well.

The following assumptions have been made in connection with the pump test:

- Seventy-two hour laboratory turnaround time will be provided for grain size analysis of split spoon soil samples. Forty-eight-hour laboratory turnaround time will be provided for the chlorinated VOCs analysis of the groundwater sample collected during the pretest.
- All required continuous groundwater elevation measurement and data logging equipment will be supplied by NYSDEC to D&B.
- A pump suitable to achieve the planned flow rates, up to 1200 feet of 2-inch hose and a flow meter will be brought to the site by NYSDEC for the pump test. The pump will be installed in the well and removed from the well by D&B's drilling subcontractor. The drilling subcontractor will provide a generator to power the pump. NYSDEC will remove their equipment from the site upon completion of the pump test.
- During the pump test NYSDEC will provide two qualified individuals to assist in undertaking the pump test and collecting groundwater elevation measurements. Up to 40 labor hours will be provided by NYSDEC personnel during the pretest, 48-hour pump test and recovery period.
- Unrestricted access will be provided as needed during the installation of the monitoring wells, extraction well and throughout the pump test. Access to the parkway will be via the Peninsula Boulevard entrance (Exit 19). The Grand Avenue exit (Exit 20) will be used to exit the parkway. The permit obtained by NYSDEC will be the only permit or approval required to do the work (see Appendix C). No insurance coverage will be required by NYSDOT and NYSOPRHP. Any signs required by NYSDOT and NYSOPRHP will be provided by NYSDOT.
- Signs, reflective drums, safety cones and lights as required by the County for running the pump test discharge hose across Hempstead Avenue and into the sewer manhole on Woodland Drive will be provided by NYSDOT.
- Based on correspondence with Nassau County and the Town of Hempstead all pump test discharge can be disposed of in the County sanitary sewer system manhole located on Woodland Drive (see Appendix B).
- Drill cuttings, wastewater from construction and development of the new monitoring wells and pump test well and decontamination wastewater will be disposed of on-site. No testing will be performed.
- Based on discussions with representatives of the NYSDEC, Nassau County Department of Health and Village of Rockville Centre Department of Water Utilities, permits or approvals are not required to construct or test the extraction well.
- Clearance for underground utilities will be provided at no charge.

- Four hours of standby time will be required for the driller to coordinate with NYSDOT.

### 3.2.3 Subtask 2C – Coordination with Agencies

Work under this subtask includes coordinating design activities with public and private agencies such as the Nassau County Department of Public Works (NCDPW), Town of Hempstead, Village of Rockville Centre, NYSOPRHP, NYSDOT, utility companies (e.g., LIPA) and Molloy College. During the predesign phase, coordination with NCDPW will be necessary to determine how the treated discharge from the groundwater extraction and treatment system will be managed. Coordination with State, Town, and Village agencies and utility companies will be necessary as well to identify utilities, access requirements, building code and permitting requirements. Since the conceptual design for the pump test and groundwater extraction and treatment system involves locating the pumping well and treatment equipment on parkway property, coordination with the NYSOPRHP and NYSDOT will be required as well during the predesign phase.

### 3.2.4 Subtask 2D – Preparation of the Groundwater Extraction and Treatment System Design Report

The engineering design report for the groundwater extraction and treatment system will be prepared under this subtask. The objective of the design will be to extract and treat the plume of PCE contaminated groundwater migrating from the Franklin Cleaners Site. For design purposes, the plume will be defined as groundwater in the Upper Glacial aquifer exhibiting PCE at concentrations above 5 ppb.

A draft table of contents for the design report is presented in Appendix A of this Work Plan. As indicated, the design report will include a review and analysis of the results of the geoprobe sampling program (Subtask 2A) and the pump test (Subtask 2B). In addition, the results of these subtasks will be taken into consideration in developing the design for the groundwater extraction and treatment system, along with the findings of Subtask 2C (Coordination with Agencies).

Treatment processes for volatile organic compounds and metals removal will be evaluated to determine the most appropriate and cost-effective treatment processes that would be necessary to meet groundwater or Nassau County sewer use discharge requirements. This evaluation will also include determining the size and number of treatment units. In addition, NYSDEC Air Guide-1 calculations will be made to determine the need for vapor phase treatment.

In addition, evaluation of the location of the groundwater treatment system will be made based upon the available space and access. Personnel from our office will meet with the local power utility to discuss power sources for the well pump(s) and treatment system. Personnel from our office will also meet with Nassau County and the Town of Hempstead to determine the rights-of-way in the area of the groundwater extraction and treatment system, and the location of all utilities will be determined for purposes of construction of the pumping well(s) and transmission piping.

The results of this task, which will include a layout of the location and configuration of the pumping, transmission and treatment system and observation wells, a treatment process schematic and preliminary construction cost estimate, will be incorporated into an engineering report for NYSDEC review and approval prior to proceeding with preparation of the plans and specifications.

### **3.3 Task 3 – Replacement of Molloy College Irrigation Well**

Based on available information, the existing irrigation well at Molloy College is 6 inches in diameter and 62 feet deep. The well is constructed of welded steel riser pipe and stainless steel screen. The length of the well screen is unknown. A 3-horsepower submersible pump was installed in the well, which supplied approximately 40 gallons per minute to a sprinkler system on the college campus. The well and associated electrical equipment and controls are housed in a wooden storage shed.

On July 23, 1998 a groundwater sample was collected from the Molloy College irrigation well by the County of Nassau Department of Health. The groundwater sample was analyzed for volatile organic compounds. PCE, the only compound detected, was found at a concentration of 9 ppb. As a result, under this task, the existing well will be replaced with a new deeper well screened in the Magothy formation. The new well will be located adjacent to the existing well. Since the new irrigation well will be approximately 400 feet upgradient of Rockville Centre water supply wells N-72, N-3745 and N-8218, it will also serve as an "early warning monitoring well" for the water supply wells.

Well N-8218, which is screened 400 to 460 feet below ground surface, is the shallowest of the three Rockville Centre water supply wells. To serve as an early warning monitoring well, the new irrigation well will be screened from 380 to 400 feet below ground surface. (Ground surface elevation is approximately the same at the two locations.)

The well will be constructed as described below.

A 12-inch diameter steel casing will be installed to a depth of 5 feet into the low permeability layer between the Upper Glacial Aquifer and the Magothy Aquifer (depth will be determined by results of boring PTMW-1). A 10-inch boring will then be advanced through the 12-inch diameter casing to a depth of 400 feet below ground surface. Next, 20 feet of 6-inch diameter wire wrapped, stainless steel screen with filter gravel and bentonite seal will be installed 380 to 400 feet below ground surface. A 6-inch diameter steel pipe casing will be installed to ground surface and grouted with a cement/bentonite slurry.

The following assumptions have been made in connection with construction of the new irrigation well:

- After the submersible pump, well head assembly, piping and electrical connections are removed from the existing irrigation well, the existing well will be left in place. A locking cap will be installed.
- The existing pump, piping and well head assembly will be installed on the new well by the drilling subcontractor.

- As indicated above, the existing irrigation well is located in a wooden shed. The new irrigation well will also be constructed within the limits of the wooden shed. Based on discussions with representatives of Molloy College, the College will remove the existing wooden shed prior to construction of the new well. In addition, Molloy College will disconnect aboveground pipe and wiring from the existing well head and reconnect aboveground piping and wiring to the new well head. D&B will interface with representatives of Molloy College to coordinate this work. However, it has been assumed that Molloy College will cooperate fully and no driller standby time will be incurred.
- One grab sample of the irrigation well drill cuttings will be collected and tested for Target Compound List (TCL) volatile organic compounds. Laboratory turn-around time of 7 days will be provided.
- Drill cuttings from construction of the irrigation well will be drummed. It has been assumed that the drums can be temporarily stored on Molloy College property near the well. In estimating the cost for testing, transportation and disposal of the drill cuttings, it has been assumed that the soil will not be contaminated.
- Full-time on-site oversight will be provided by D&B during construction of the irrigation well. It is assumed that the field work will be completed in 15 business days.
- It is assumed that unrestricted access will be provided to the site.
- A well construction log will be submitted to NYSDEC by D&B upon completion of the new irrigation well.
- Based on discussions with representatives of the NYSDEC, Nassau County Department of Health and Village of Rockville Centre Department of Water Utilities, permits or approvals are not required to construct and operate the proposed replacement irrigation well.
- A groundwater sample will be collected from the existing irrigation well prior to construction and from the new irrigation well after construction is complete. The samples will be collected from the discharge of the irrigation well pump at the well head. The samples will be analyzed for chlorinated volatile organic compounds by USEPA Method 601. Standard laboratory turnaround of 28 days will be provided. The results will be reported to the NYSDEC.



### **3.4 Task 4 - Plans and Specifications (Contract Documents) - SVE/Air Sparging System**

Using the information in the Franklin Cleaners RI/FS Report, the Record of Decision and the predesign studies, D&B will prepare a performance specification for the purpose of competitively bidding the SVE/air sparging portion of the selected remedy in conformance with New York State laws, rules, regulations and guidelines. The documents will conform to the selected remedy in the Record of Decision. The design documents will include performance requirements for the treatment unit including area and depths of influence, minimum vacuum requirements at the remedial boundaries, soil treatment objectives, vapor discharge criteria, maximum time period for remediation, and conceptual design drawings showing suggested number and placement of vapor extraction and air sparging points and related equipment.

In addition, the contract documents will contain a bid schedule; minimum construction, startup, operation, maintenance and monitoring requirements; contractor qualification and experience requirements; specifications for mobilization and demobilization and control of noise, emissions and condensate; as well as submittal requirements, including preparation of a site-specific health and safety plan, sampling and analysis plan, and quality assurance/quality control plan. The specifications will also include requirements for resurfacing of the interior basement floor and asphalt paving the rear of the former Franklin Cleaners building. Prior to submission to the NYSDEC, the contract documents will be reviewed by D&B with specific consideration to a bidder's ability to provide a responsive bid.

#### **3.4.1 Subtask 4.1 – Preliminary Design Submittal**

D&B will submit three copies of the preliminary performance based specifications when the design of the SVE/air sparging system is 30 percent complete. Supporting data, documentation, and design calculations as applicable shall be provided with the design documents. This subtask includes attendance at one meeting at NYSDEC's Albany office to review the comments on the draft plans and specifications.

### 3.4.2 Subtask 4.2 – Draft-Final Design

Following receipt of written comments from NYSDEC describing the changes required to complete the design, D&B will submit to the NYSDEC for review, three copies of the draft-final specifications, along with supporting data/documentation and design calculations, as applicable.

In addition, as part of this subtask, a detailed construction and operations cost estimate will be prepared. The estimate will be prepared on a bid item basis as provided in the bid schedule in order to provide an estimate for each bid item. The estimated quantities on the bid schedule in the final contract documents will be utilized to provide a total engineering cost estimate for construction, operation and maintenance of the SVE/air sparging system.

Written comments on the various submissions will be provided by the NYSDEC describing the changes required to consider the plans and specifications acceptable for bidding. The final design documents will incorporate all comments from the Department and will be signed and stamped by a NYS Professional Engineer. After approval of the final design by the NYSDEC, D&B will submit one copy of the final plans and specifications to NYSDEC. Upon return of this copy, D&B will submit 75 copies of the plans and specifications for bidding.

### **3.5 Task 5 - Plans and Specifications (Contract Documents) - Groundwater Extraction and Treatment System**

Using the information in the Franklin Cleaners RI/FS Report, the Record of Decision and the predesign studies, D&B will prepare construction plans and specifications for the purpose of competitively bidding the groundwater extraction and treatment system portion of the selected remedy in conformance with New York State laws, rules, regulations and guidelines. The documents will conform to the selected remedy in the Record of Decision.

The drawings will provide well construction details, general arrangement of treatment units, schematic of major plant piping, typical foundations and effluent piping. The groundwater

extraction and treatment system specifications will be based on required performance criteria of the operating system. The document will also contain construction specifications for installation of pumping wells and observation wells, piping, electrical work and control of process and fugitive emissions. In addition the specifications will define the startup and performance testing and sampling requirements to be performed by the contractor.

#### 3.5.1 Subtask 5.1 – Draft Design Submittal

D&B will submit three copies of the draft construction plans and specifications to NYSDEC for review and comment. Supporting data, documentation, and design calculations as applicable shall be provided with the design documents. This subtask includes attendance at one meeting at NYSDEC's Albany office to review the comments on the draft plans and specifications.

#### 3.5.2 Subtask 5.2 – Draft Final Design

Following receipt of written comments from NYSDEC describing the changes required to complete the design, D&B will submit to the NYSDEC for review, three copies of the draft final plans and specifications, along with supporting data/documentation and design calculations, as applicable.

In addition, as part of this subtask, a detailed construction cost estimate will be prepared. The estimate will be prepared on a bid item basis as provided in the bid schedule in order to provide an estimate for each bid item. The estimated quantities on the bid schedule in the final contract documents will be utilized to provide a total engineering cost estimate for construction of the groundwater extraction and treatment system.

Written comments on the various submissions will be provided by the NYSDEC describing the changes required to consider the plans and specifications acceptable for bidding. The final design documents will incorporate all comments from the Department and will be signed and stamped by a NYS Professional Engineer. After approval of the final design by the

NYSDEC, D&B will submit one copy of the final plans and specifications to NYSDEC. Upon return of this copy, D&B will submit 75 copies of the plans and specifications for bidding.

### **3.6 Task 6 – Citizen Participation**

D&B will assist the NYSDEC in support of citizen participation activities, such as public meetings or hearings, as requested by the NYSDEC. Presentation materials such as summary documents, maps and related handouts will be prepared for meetings. It has been assumed that attendance at one meeting will be required in connection with each contract for a total of two (2) meetings, each in the vicinity of the project site.

### **3.7 Task 7 – Pre-award Services**

As part of this task, the following activities will be performed separately and independently for both contracts (i.e., the SVE/air sparging contract and the groundwater extraction and treatment contract):

- Assistance will be provided to NYSDEC in conducting a pre-bid conference and site visit. Minutes will be maintained by D&B during the conference and provided to NYSDEC for distribution to bidders.
- Necessary addenda will be prepared to the plans and specifications by D&B and provided to NYSDEC for distribution to prospective bidders. In addition, responses will be provided to NYSDEC for any written questions received. Addenda and written responses will be provided to NYSDEC in a timely manner for transmittal to prospective bidders prior to the bid due date.
- D&B will review the submittals received by the apparent low bidder for compliance with the requirements of the contract documents. This will consist of a review of the apparent low bidder's health and safety plan, sampling and analysis plan, and QA/QC Plan.

### 3.8 Task 8 - Additional Requirements

Under this task D&B will perform periodic indoor air monitoring and replace the filter media in the existing air purifying units in the basement of the former Franklin Cleaners building. Each ambient air sampling event will consist of sampling at six locations to be identified by NYSDEC utilizing Passive Sampling Devices. The Passive Sampling Devices will be analyzed by NYSDOH Method 311-9.

It has been assumed that ambient air sampling and filter media replacement will be conducted on the following schedule:

- Upon approval of the work plan, D&B will collect one round of ambient air samples. In addition, at this time, D&B will evaluate options for improving air quality in the basement of the building at 210-212 Franklin Avenue, since elevated concentrations of tetrachloroethene have been detected by NYSDOH. This effort will include air monitoring with a hand-held photoionization detector and an inspection of the building in order to attempt to identify the potential pathway to the source of PCE. A letter report will be prepared presenting the results of the effort and recommendations.
- A second round of air sampling will be conducted 2 months after the first round of air sampling. In addition, at this time the filter media in each of the four air purifying units will be replaced D&B.
- Subsequently, ambient air sampling and filter media replacement will be conducted at 4-month intervals. This will result in sampling and media replacement at 6, 10, 14, 18 and 22 months after work plan approval. This should provide data with respect to ambient air quality both before and after startup of the SVE/air sparging system equipment.

During the first filter media replacement event, one grab sample of the spent media will be collected and tested for tetrachloroethene by the Toxicity Characteristic Leaching Procedure (TCLP). Standard laboratory turn-around time of 28 days will be provided. The material will be temporarily stored at the site in a labeled container while the sample is being tested.

A brief letter report will be provided to NYSDEC documenting the results of each ambient air sampling event and reporting the date and time of each filter media replacement event.

In preparing the cost estimate for this task, the following assumptions have been made:

- Unrestricted access will be provided as necessary to perform ambient air sampling and replacement of filter media.
- One duplicate sample will be collected as part of each ambient air sampling round.
- The results of TCLP testing of the spent filter media will indicate the material is non-hazardous and can be handled and disposed of as municipal solid waste.
- The total number of ambient air sampling events will be seven (7). Standard laboratory turn-around time of 28 days will be provided.
- The total number of filter media replacement events will be six (6).

## **4.0 PROJECT MANAGEMENT**

### **4.1 Project Schedule and Key Milestones/Reports**

A project schedule is provided in Figure 4-1. Key milestones are identified in order to monitor work progress. Specific deadlines for completion of tasks and subtasks are established throughout the project to ensure timely completion of work. The following is the list of the milestones for this project:

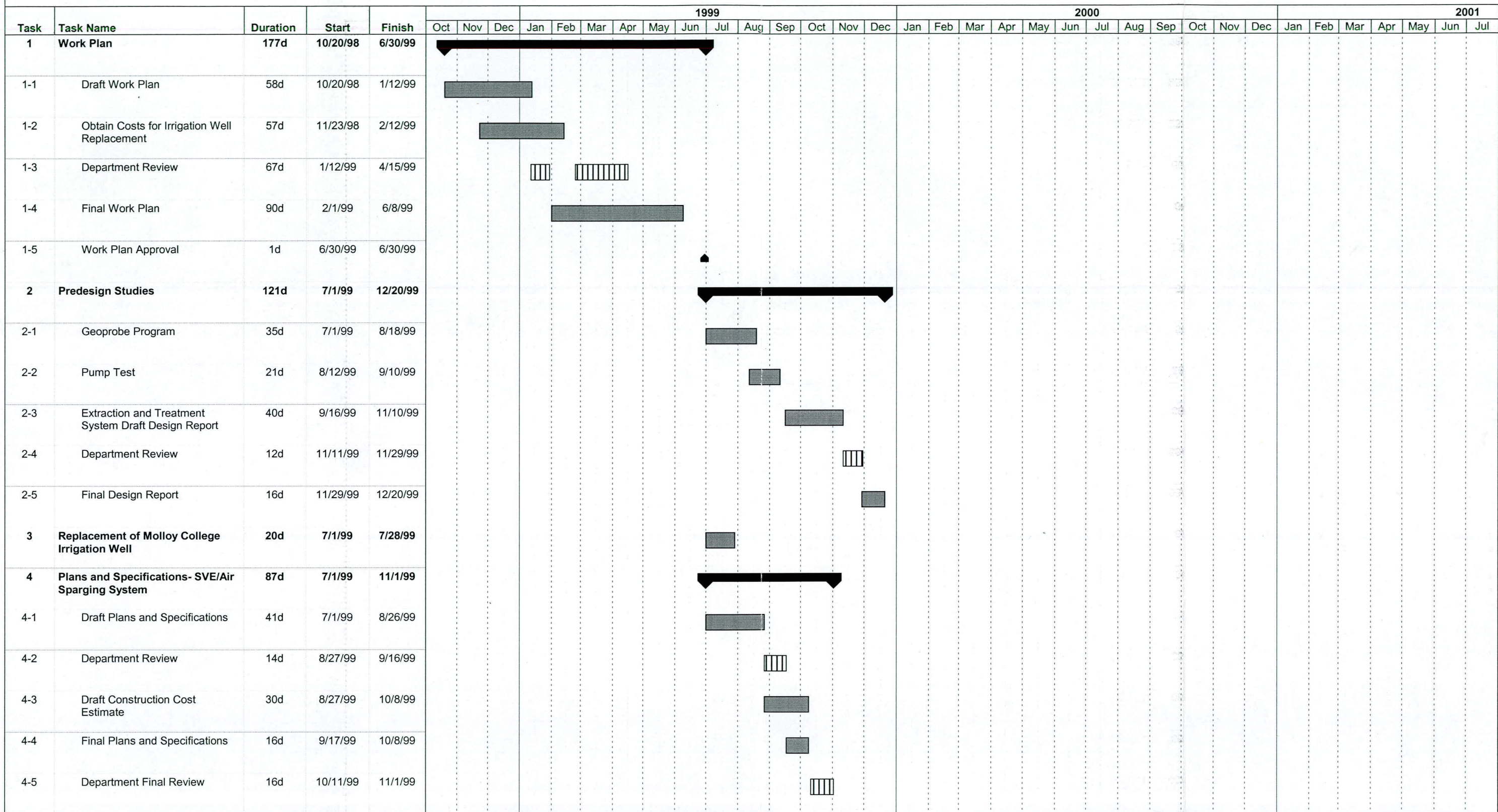
1. Submittal of Draft Work Plan
2. Submittal of Draft Groundwater Extraction and Treatment System Design Report
3. Replacement of Molloy College Irrigation Well
4. Submittal of Draft Contract Documents for the SVE/Air Sparging System
5. Submittal of Draft Contract Documents for the Groundwater Extraction and Treatment System
6. Submittal of Draft Construction Cost Estimate for the SVE/Air Sparging System
7. Submittal of Draft Construction Cost Estimate for Groundwater Extraction and Treatment System

### **4.2 Project Management, Organization and Key Technical Personnel**

Dvirka and Bartilucci Consulting Engineers will be the prime consultant responsible for this project. Subcontractors will be used on the project for the following services:

- YEC, Inc. – Surveying Services
- Uni-Tech Drilling Co., Inc. – Drilling
- Zebra Environmental Corp. – Geoprobe Groundwater Sampling

**Franklin Cleaners Site  
Remedial Design  
Project Schedule**



Project: Franklin Cleaners Site  
Date: May 27, 1999





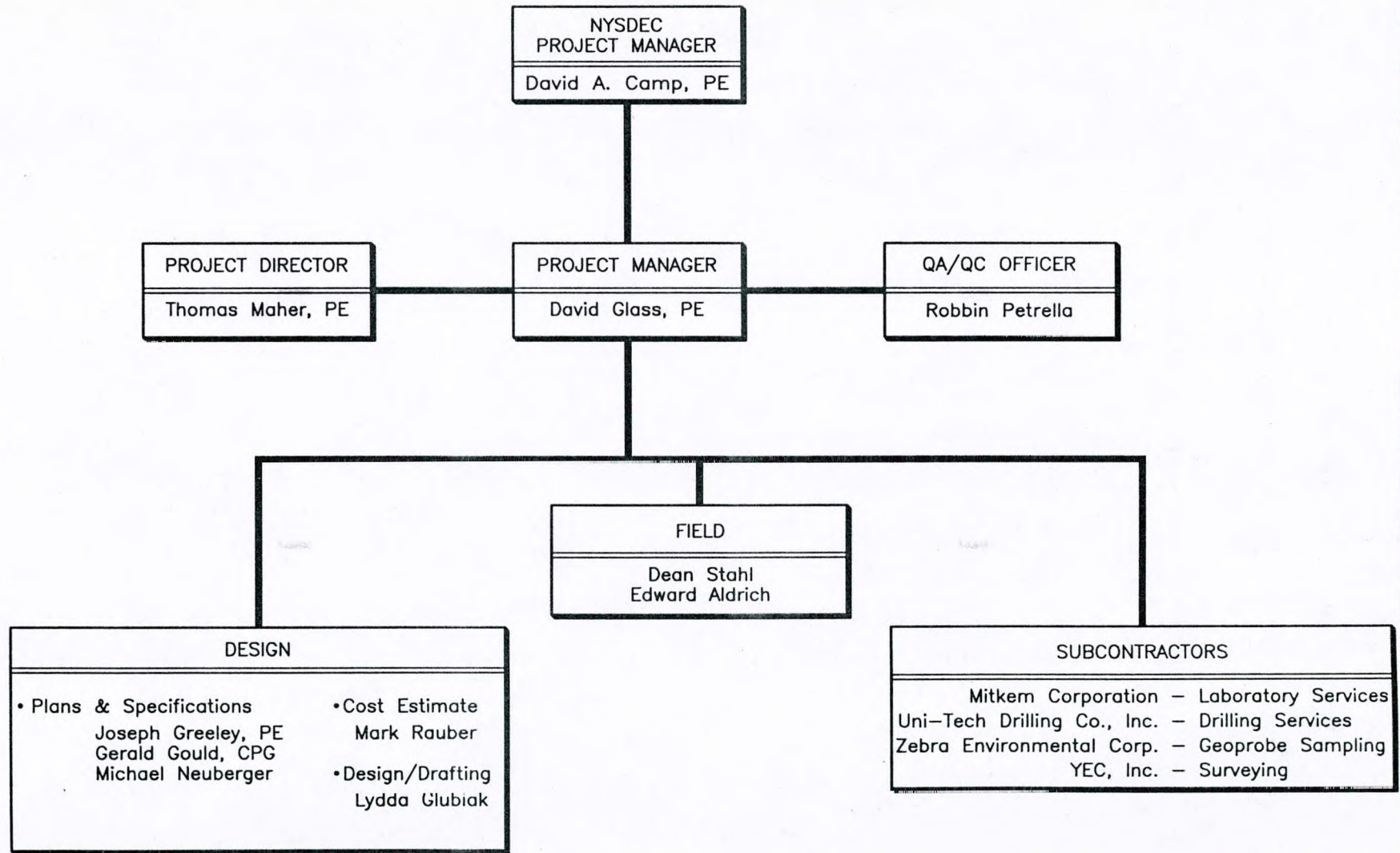


- MITKEM Corporation – Laboratory Services
- Jamaica Blue Print Co., Inc. - Document Reproduction

Figure 4-2 illustrates both management and project responsibility functions for the project team and key personnel.

# FIGURE 4-2 PROJECT TEAM ORGANIZATION CHART

FOR  
FRANKLIN CLEANERS  
REMEDIAL DESIGN  
HEMPSTEAD, NEW YORK



FILE: 1604--ORG (T.MCC/2-18-99)



Dvirka and Bartilucci  
Consulting Engineers  
A Division of William F. Cosulich Associates, P.C.

## 5.0 SITE SPECIFIC QUALITY ASSURANCE AND QUALITY CONTROL PLAN

All sample analysis for the Franklin Cleaners Site will be conducted in accordance with the New York State Department of Environmental Conservation 10/95 Analytical Services Protocol (ASP). All other information which is not provided below regarding detailed sampling procedures and protocols, as well as other quality assurance and quality control (QA/QC) requirements, is provided in the draft Generic Work Plan dated February 1996.

### 5.1. Sampling Program Design and Rationale

- Five subsurface soil samples will be collected for grain size analysis/soil classification to determine screen size for the new pumping well.
- One sample of the filter media will be collected from the ambient air filtration units to determine the proper method of disposal.
- One soil sample will be collected from the drill cuttings for the irrigation well to characterize the soil for disposal purposes.
- Eighteen groundwater samples will be collected from 6 probe locations to delineate the depth and width of the plume.
- Three groundwater samples will be collected from wells. One sample will be collected from the pumping well, one sample will be collected from the existing irrigation well and one sample will be collected from the new irrigation well to determine the extent of groundwater contamination.
- Seven rounds of ambient air samples (consisting of 6 samples per round) will be collected to determine ambient air concentrations of tetrachloroethene.

In addition to the above, the following QA/QC samples will be collected.

- One trip blank will be sent with each shipment of the groundwater samples.
- One aqueous and one soil matrix spike/matrix spike duplicate samples will be collected.

Table 5-1 presents a summary of the parameters/sample fractions to be analyzed together with the sample location, type of sample, sample matrix, number of samples, frequency of sample collection, type of sample container, method of preservation, holding time and analytical method.

Table 5-1

**FRANKLIN CLEANERS REMEDIAL DESIGN  
SUMMARY OF MONITORING PARAMETERS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency*</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time**</u>	<u>Analytical Method</u>
Site/Study Area	Composite	Ambient Air	Volatile Organics	6	7	3M Passive Sampling Badges Model 3500	Cool to 4°C	7 days for analysis	NYSDOH 311.9

\*Eight rounds of Ambient Air samples will be collected.

\*\*Holding time based upon VTSR (Verified Time of Sample Receipt).

Table 5-1 (continued)

**FRANKLIN CLEANERS REMEDIAL DESIGN  
SUMMARY OF MONITORING PARAMETERS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time*</u>	<u>Analytical Method</u>
Air Filters	Grab	Filter Media	Toxicity Characteristic Leaching Procedure	1	1	Glass, clear/ 4 oz/2 ICHEM 200 series or equivalent	Cool to 4°C	10 days for extraction	10/95 NYSDEC ASP Method 1311
		TCLP Extract	Volatile Organics**	1	1	Glass, clear/ 40 mL/3 ICHEM 200 equivalent	Cool to 4°C	7 days after extraction, for analysis	10/95 NYSDEC ASP Method 8020

\*Holding times based upon VTSR (Verified Time of Sample Receipt).

\*\* Analyze for perchloroethylene only.

Table 5-1 (continued)

**FRANKLIN CLEANERS REMEDIAL DESIGN  
SUMMARY OF MONITORING PARAMETERS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time*</u>	<u>Analytical Method</u>
Soil Borings (Drill Cuttings)	Grab	Soil	Volatile Organics	1	1	Glass, clear/ 4 oz./2 ICHEM 200 series or equivalent	Cool to 4°C	10 days for analysis	10/95 NYSDEC ASP Method 95-1

\*Holding times based upon VTSR (Verified Time of Sample Receipt)



**Table 5-1 (continued)**

**FRANKLIN CLEANERS REMEDIAL DESIGN  
SUMMARY OF MONITORING PARAMETERS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time*</u>	<u>Analytical Method</u>
Monitoring Wells (Pumping Well, and existing and Newly Installed Irrigation Well)	Grab	Groundwater	Chlorinated Volatile Organics	3	1	Glass, clear/ 40 mL/3 ICHEM 300 series or equivalent	Cool to 4°C	7 days for analysis	10/95 NYSDEC ASP Method 601
	Grab	Groundwater	Dissolved Iron and Manganese	1	1	Plastic/1L/1 ICHEM 300 series or equivalent	HNO <sub>3</sub> to pH <2 Cool to 4°C	6 months for analysis	10/95 NYSDEC ASP Method 236.1 and 243.2

\*Holding times based upon VTSR (Verified Time of Sample Receipt).

Table 5-1 (continued)

**FRANKLIN CLEANERS REMEDIAL DESIGN  
SUMMARY OF MONITORING PARAMETERS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time*</u>	<u>Analytical Method</u>
Probe Locations	Grab	Groundwater	Chlorinated Volatile Organics	18	1	Glass, clear/ 40 ml/3 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	10/95 NYSDEC ASP Method 601

\*Holding times based upon VTSR (Verified Time of Sample Receipt at the laboratory)

Table 5-1 (continued)

**FRANKLIN CLEANERS REMEDIAL DESIGN  
SUMMARY OF MONITORING PARAMETERS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time*</u>	<u>Analytical Method</u>
Site/Study Area	Trip Blank	Water	Chlorinated Volatile Organics	5**	1	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days for analysis	10/95 NYSDEC ASP Method 601

\*Holding time based upon VTSR (Verified Time of Sample Receipt).

\*\*One trip blank will accompany each shipment of aqueous samples requiring volatile organic analysis.

Table 5-1 (continued)

**FRANKLIN CLEANERS REMEDIAL DESIGN  
SUMMARY OF MONITORING PARAMETERS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time*</u>	<u>Analytical Method</u>
Site/Study Area	Matrix Spike and Matrix Spike Duplicate	Groundwater	Chlorinated Volatile Organics	1**	1	Glass, clear/ 40 mL/3 ICHEM 300 series or equivalent	Cool to 4°C	7 days for analysis	10/95 NYSDEC ASP Method 601
	Matrix Spike and Matrix Spike Duplicate	Groundwater	Dissolved Iron and Manganese	1**	1	Plastic/1L/1 ICHEM 300 series or equivalent	HNO <sub>3</sub> to pH <2 Cool to 4°C	6 months for analysis	10/95 NYSDEC ASP Method 236.1 and 243.2

\*Holding times based upon VTSR (Verified Time of Sample Receipt).

\*\*One set of MS/MSD based upon collection of 20 groundwater samples.

Table 5-1 (continued)

**FRANKLIN CLEANERS REMEDIAL DESIGN  
SUMMARY OF MONITORING PARAMETERS**

<u>Sample Location</u>	<u>Sample Type</u>	<u>Sample Matrix</u>	<u>Sample Fraction</u>	<u>Number of Samples</u>	<u>Frequency</u>	<u>Container Type/Size/No.</u>	<u>Sample Preservation</u>	<u>Maximum Holding Time*</u>	<u>Analytical Method</u>
Site/Study Area	Matrix Spike and Matrix Spike Duplicate	Soil	Chlorinated Volatile Organics	1	1	Glass, clear/ 4oz/2 ICHEM 200 series or equivalent	Cool to 4°C	10 days for analysis	10/95 NYSDEC ASP Method 601

\*Holding times based upon VTSR (Verified Time of Sample Receipt).

## 6.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN

The following site-specific information comprises information not included in the Dry Cleaner Generic Work Plan. The Generic Work Plan includes a Generic Health and Safety Plan. The following information will be utilized in conjunction with the Generic Health and Safety Plan. Information with regard to contaminants of concern, personal protective equipment, exposure limits and monitoring requirements are provided in the Generic Health and Safety Plan.

Site Name:	<u>Franklin Cleaners</u>
Address:	<u>206-208B South Franklin Street</u> <u>Village of Hempstead, New York</u>
Telephone:	<u>--</u>
Date of HASP Preparation:	<u>February 1999</u>
Dates of Field Investigation:	<u>March 1999 to March 2001</u>
Entry Objectives:	<u>Delineate groundwater contamination plume,</u> <u>perform pump test, perform ambient air</u> <u>sampling and change out filter media in</u> <u>ambient air filtration units.</u>

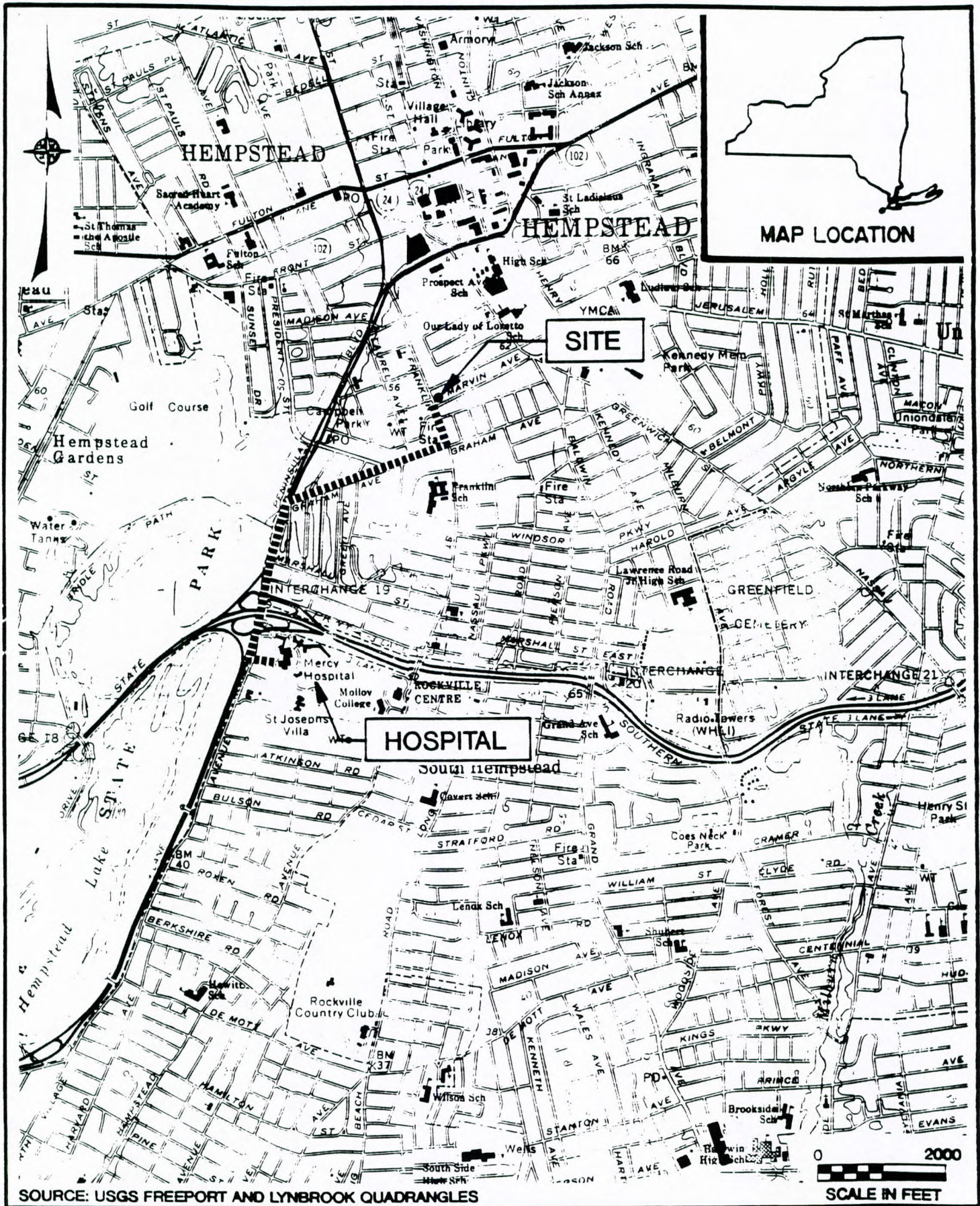
Site Organization Structure:	<u>Name</u>	<u>Phone</u>
Project Director:	<u>T. Maher</u>	<u>516-364-9890</u>
Project Manager:	<u>D. Glass</u>	<u>516-364-9890</u>
Health and Safety Officer (HSO)	<u>M. Ziskin</u>	<u>203-457-2100</u>
Field Operations Manager/Alternate HSO	<u>E. Aldrich</u>	<u>516-364-9890</u>
Field Team Staff:	<u>K. Robins</u>	<u>516-364-9890</u>

Subcontractors:	YEC, Inc.	914-268-3203
	Uni-Tech Drilling	609-694-4200
	MITKEM Corporation	401-732-4300
	Zebra Environmental	516-371-2020

Medical Assistance:	
Physician:	Dr. Ronald Rosen
Address:	269-11 76th Avenue - CCC Building
	Third Floor - Room 313
	New Hyde Park, NY 11042
Telephone:	718-470-4435
Name of Hospital:	Mercy Hospital
Telephone:	516-255-0111
Directions:	South Franklin Street to Graham Avenue; turn right onto Graham
	Avenue and follow to Peninsula Boulevard; turn left onto
	Peninsula Boulevard and follow to North Village Avenue and
	Mercy Hospital (just south of Southern State Parkway) on left-
	hand side (see Figure 6-1).

Emergency Telephones:

Agent/Facility	Telephone	Emergency Number
EMS - Ambulance	911	911
Police Department	516-483-6200	911
Fire Department	516-486-0012	911
Hospital	516-255-0111	--
Poison Control Center	516-542-2323	--



SOURCE: USGS FREEPORT AND LYNBROOK QUADRANGLES

FRANKLIN CLEANERS SITE  
HEMPSTEAD, NEW YORK

### HOSPITAL EMERGENCY ROUTE



Dvirka and Bartilucci  
Consulting Engineers  
A Division of William F. Cosulich Associates, P.C.

FIGURE 6-1



Additional site related information (including, special hazards, site control, waste storage and disposal, personal protective equipment, decontamination area location, special engineering controls, etc.).

NOT APPLICABLE

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## **7.0 SITE-SPECIFIC CITIZEN PARTICIPATION PLAN**

The Site-Specific Citizen Participation Plan for this project can be found in the May 1997 RI/FS Work Plan Amendment for the Franklin Cleaners Site.

8.0 SCHEDULE 2.11s

**SCHEDULE 2.11 (a)**Summary of Work Assignment Price  
Franklin Cleaners Site

Work Assignment Number: D003600-10

1. Direct Salary Costs (Schedules 2.10 (a) and 2.11(b))	\$71,237
2. Indirect Costs (Schedule 2.10 (g))	\$112,768
3. Direct Non-Salary Costs (Schedules 2.11 (c) and (d))	\$11,148

Subcontract Costs

## Cost-Plus-Fixed-Fee Subcontracts (Schedules 2.11(e))

<u>Name of Subcontractor</u>	<u>Services To Be Performed</u>	<u>Subcontract Price</u>
1. YEC, Inc.	Survey and Mapping	\$3,599
4. Total Cost-Plus-Fixed-Fee Subcontracts		\$3,599

## Unit Price Subcontracts (Schedules 2.11(f))

<u>Name of Subcontractor</u>	<u>Services To Be Performed</u>	<u>Subcontract Price</u>
1. Jamaica Blue Print Co., Inc.	Reproduction Services	\$3,000
2. Uni-Tech Drilling Co., Inc.	Drilling Services	\$79,859
3. Zebra Environmental Corp.	Geoprobe Groundwater Sampling	\$3,156
4. Mitkem Corporation	Analytical Laboratory Services	\$7,987
5. Waste Management, Inc.	Drum Transport and Disposal	\$4,560
5. Total Unit Price Subcontracts		\$98,562
6. Subcontract Management Fee		\$2,795
7. Total Subcontract Costs (lines 4 + 5 + 6)		\$104,957
8. Fixed Fee (Schedule 2.10 (h))		\$15,456
9. Total Work Assignment Price (lines 1 + 2 + 3 + 7 + 8)		\$315,566

**SCHEDULE 2.11 (b)1**  
**SUMMARY**  
Franklin Cleaners Site  
Work Assignment Number: D003600-10

NSPE	IX	VIII	VII	VI	V	IV	III	II	I	TOTAL HOURS
as of July 1, 1998	\$56.59			\$37.12	\$31.20	\$26.35	\$23.91	\$20.76		
as of July 1, 1999	\$58.29			\$38.23	\$32.14	\$27.14	\$24.63	\$21.38		
Task 1	2	0	0	124	60	0	0	112	0	298
Task 2	8	0	0	156	200	0	150	78	0	592
Task 3	0	0	0	16	8	0	132	8	0	164
Task 4	8	0	0	116	72	0	0	92	0	288
Task 5	10	0	0	192	128	0	0	136	0	466
Task 6	4	0	0	32	8	0	0	20	0	64
Task 7	12	0	0	104	40	0	0	40	0	196
Task 8	2	0	0	64	100	0	0	32	0	198
Subtotal 1998 Hours	0	0	0	0	0	0	0	0	0	0
Subtotal 1999 Hours	46	0	0	804	616	0	282	518	0	2266
Total Hours	46	0	0	804	616	0	282	518	0	2266
Total Direct Labor Cost	\$2,681	\$0	\$0	\$30,737	\$19,798	\$0	\$6,946	\$11,075	\$0	\$71,237



**SCHEDULE 2.11 (c)**  
**DIRECT NON-SALARY COSTS**  
**SUMMARY**  
Franklin Cleaners Site  
Work Assignment Number: D003600-10

ITEM	MAXIMUM REIMBURSEMENT RATE	UNIT	ESTIMATED NUMBER OF UNITS	TOTAL ESTIMATED COSTS
<b>OUTSIDE SERVICES</b>				
Sample Shipping	\$75.00	package	12	\$900.00
Express Mail	\$40.00	package	22	\$880.00
	\$80.00	package	16	\$1,280.00
Photographs/Slides	\$50.00	Lump Sum	1	\$50.00
<b>TRAVEL</b>				
Transportation (Personal Car)	\$0.325	mile	1948	\$633.10
Tolls	\$20.00	trip	2	\$40.00
Van Rental	\$330.00	week	3	\$990.00
Gas	\$20.00	week	3	\$60.00
<b>TOTAL DIRECT NON-SALARY COSTS</b>				<b>\$4,833.10</b>

Schedule 2.11 (c)2  
 Direct Non-Salary Costs  
 Franklin Cleaners Site  
 Work Assignment Number: D003600-10

Item	Reimbursement* Rate	Est. No.	Total	Est. No.	Total	Est. No.	Total	Est. No.	Total	Est. No.	Total	Est. No.	Total	Est. No.	Total	Est. No.	Total	Total Estimated No. of Units	Total Estimated Cost
		of Units (Task 1)	Cost (Task 1)	of Units (Task 2)	Cost (Task 2)	of Units (Task 3)	Cost (Task 3)	of Units (Task 4)	Cost (Task 4)	of Units (Task 5)	Cost (Task 5)	of Units (Task 6)	Cost (Task 6)	of Units (Task 7)	Cost (Task 7)	of Units (Task 8)	Cost (Task 8)		
A. Miscellaneous (Travel)																			
1. Transportation (Personal Car)	\$0.325 /mile	170	\$55.25	182	\$59.15	510	\$165.75	350	\$113.75	350	\$113.75	80	\$26.00	34	\$11.05	272	\$88.40	1948	\$633.10
2. Tolls (Personal Car)	\$20.00 /trip	0	\$0.00	0	\$0.00	0	\$0.00	1	\$20.00	1	\$20.00	0	\$0.00	0	\$0.00	0	\$0.00	2	\$40.00
3. Van Rental	\$330.00 /week	0	\$0.00	3	\$990.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	3	\$990.00
4. Gas	\$20.00 /week	0	\$0.00	3	\$60.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	3	\$60.00
Subtotal (Travel)			\$55.25	\$1,109.15		\$165.75		\$133.75		\$133.75		\$26.00		\$11.05		\$88.40		\$1,723.10	
B. Miscellaneous (Expenses)																			
1. Sample Shipping	\$75.00 /package	0	\$0.00	3	\$225.00	2	\$150.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	7	\$525.00	12	\$900.00
2. Express Mail	\$40.00 /package	0	\$0.00	0	\$0.00	0	\$0.00	11	\$440.00	11	\$440.00	0	\$0.00	0	\$0.00	0	\$0.00	22	\$880.00
	\$80.00 /package	0	\$0.00	0	\$0.00	0	\$0.00	8	\$640.00	8	\$640.00	0	\$0.00	0	\$0.00	0	\$0.00	16	\$1,280.00
3. Photographs/Slides	\$50.00 Lump Sum		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$50.00		\$0.00		\$0.00		\$50.00
Subtotal (Misc. Expenses)			\$0.00	\$225.00		\$150.00		\$1,080.00		\$1,080.00		\$50.00		\$0.00		\$525.00		\$3,110.00	
<b>TOTAL</b>			\$55.25	\$1,334.15		\$315.75		\$1,213.75		\$1,213.75		\$76.00		\$11.05		\$613.40		\$4,833.10	

\* See Schedule 2.10(b) for rates.



**SCHEDULE 2.11 (d)1**

**EQUIPMENT PURCHASED UNDER THE CONTRACT  
SUMMARY**

Franklin Cleaners Site

Work Assignment Number: D003600-10

ITEM	ESTIMATED PURCHASE PRICE	O&M RATE (\$/per month)	TERM OF USAGE (MONTHS)	ESTIMATED USAGE COST (COL. 2 + [3X4])
Hose Protection System	\$4,082.40	0	1	4,082.40
Hose Protection Sys. Shipping	\$225.00	0	1	225.00
			TOTAL	\$4,307

**SCHEDULE 2.11 (d)2**  
**EQUIPMENT**  
**CONSULTANT OWNED**  
**SUMMARY**  
 Franklin Cleaners Site  
 Work Assignment Number: D003600-10

ITEM	PURCHASE PRICE X 85%	USAGE RATE (\$/day)	CAPITAL RECOVERY RATE (\$/Unit of Time)	O & M RATE (\$/Unit of Time)	ESTIMATED USAGE (days)	ESTIMATED USAGE COST (Col. 3x6)
None					TOTAL	\$0

Notes:

Usage Rate = Capital Recovery Rate + O&M rate

The maximum usage rate for an item of equipment reverts to the O&M rate when the total usage reimbursement exceed 85% of the purchase price.

**SCHEDULE 2.11 (d)3  
EQUIPMENT  
VENDOR RENTED  
SUMMARY**

Franklin Cleaners Site  
Work Assignment Number: D003600-10

ITEM	MAXIMUM REIMBURSEMENT RATE	TIME PERIOD	ESTIMATED USAGE (period of time)	ESTIMATED USAGE COST (Col. 2 X 3)
None				
			Total	\$0

**SCHEDULE 2.11 (d)4**

SUMMARY  
 EXPENDABLE SUPPLIES  
 Franklin Cleaners Site  
 Work Assignment Number: D003600-10

ITEM	ESTIMATED QUANTITY	UNITS	UNIT COST	TOTAL BUDGETED COST (COL. 2 X 3)
None				
			TOTAL	\$0

**SCHEDULE 2.11 (d)5**  
**CONSUMABLE SUPPLIES**  
 Franklin Cleaners Site  
 Work Assignment Number: D003600-10

ITEM	ESTIMATED QUANTITY	UNIT COST	TOTAL BUDGETED COST (COL. 2 X 3)
Vapor Phase Activated Carbon	6 55 lb bags	\$116.25 /55 lb bag	\$697.50
Passive Dosimeter Badges	5 cases of 10 ea.	\$162.00 /case	\$810.00
Miscellaneous Supplies	1	\$500.00 Lump sum	\$500.00
		TOTAL	\$2,007.50

Schedule 2.11 (e)  
Cost Plus Fixed-Fee Subcontracts

Franklin Cleaners Site

February 11, 1999

<u>NAME OF SUBCONTRACTOR</u>	<u>SERVICES TO BE PERFORMED</u>	<u>SUBCONTRACT PRICE</u>
YEC, INC.	SURVEYING	\$3,599.47

A. Direct Salary Costs

<u>Professional Responsibility Level</u>	<u>Labor Classification</u>	<u>Average Reimbursement Rate (\$/Hr.)</u>		<u>Maximum Reimbursement Rate (\$/Hr.)</u>		<u>Estimated Number of Hours</u>	<u>Total Estimated Direct Salary Cost (\$)</u>
		1999		1999			
Principal	VIII	1999	47.69	1999	51.51	6	286.14
Senior Geologist/Scientist/ Engineer/ Licensed Surveyor	V	1999	31.53	1999	34.68	16	504.48
Staff Geologist/ Scientist/Engineer	IV	1999	27.40	1999	30.14		0.00
Staff Geologist/ Scientist/Engineer/CAD Operator	III	1999	23.78	1999	26.40	8	190.24
Senior Technician/Staff Engineer/Scientist/Geologist	II	1999	17.60	1999	19.71	16	281.60
Technician/Draftsperson	I	1999	15.94	1999	17.85		0.00
Total Direct Salary Costs:							1,262.46

B. Indirect Costs - 117% of direct salary cost

Indirect Costs: 1,477.08

C. Maximum Reimbursement Rates for Direct Non-Salary Costs:

<u>Item</u>	<u>Maxium Reimbursement Rate</u>	<u>Estimated No. of Units</u>	
Per Diem	89.00 /day	1 days	89.00
Mileage	0.31 /mile	300 miles	0.00
Tolls	10.00 /trip		30.00
Survey Equipment Rental	65.00 day	1 day	65.00
CAD Equipment	15.00 hour	8 hours	120.00
Level D Protection	15.00 /manday	3 mndays	45.00
Tele./Postage/Repro./Field supplies	100.00 lump sum		100.00
Total Direct Non Salary Costs:			449.00

D. Fixed Fee (15% of Total Direct and Indirect Salary Costs)

Fixed Fee: 410.93

**SCHEDULE 2.11 (f)1**  
**UNIT PRICE SUBCONTRACTS**  
 Franklin Cleaners Site  
 Work Assignment Number: D003600-10

<b>NAME OF SUBCONTRACTOR</b>	<b>SERVICES TO BE PERFORMED</b>	<b>SUBCONTRACT PRICE</b>	<b>MANAGEMENT FEE</b>
Jamaica Blue Print Co., Inc.	Reproduction Services	<b>\$3,000.00</b>	<b>\$0.00</b>
	<b>Maximum Reimbursement Rate</b>	<b>Estimated No. of Units</b>	<b>Total Estimated Costs</b>
<b>Item</b>			
Photocopying of Documents	\$0.034 per copy	75,000	\$2,550.00
Printing of Drawings	\$0.30 per drawing	1,500	<u>\$450.00</u>
		<b>Total</b>	<b>\$3,000.00</b>

SCHEDULE 2.11 (f)2  
 UNIT PRICE SUBCONTRACTS  
 Franklin Cleaners Site  
 Work Assignment Number: D003600-10

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Uni-Tech Drilling	Drilling Services	\$79,859.00	\$2,795.07
	<u>Unit Rate</u>	<u>Estimated No. of Units</u>	<u>Total Estimated Costs</u>
<b>1. Mobilization and Demobilization</b>			
a. Site Mob and Demob	\$0.95 /Mile	1200 Miles	\$1,140.00
b. Construction and Removal of Decon Pad	\$425.00	Lump Sum	\$425.00
c. Site Set-up and Removal	\$150.00	2 Sites	\$300.00
d. Well Set-up	\$75.00 /Well	4 Wells	\$300.00
<b>2. Drilling Techniques</b>			
<b>2a. Hollow Stem Augers</b>			
<b>(1) 0-50 Feet in Depth</b>			
c. 4.25 Inch ID	\$14.00 /Ft	100 Ft	\$1,400.00
e. 8.25 Inch ID	\$18.00 /Ft	50 Ft	\$900.00
<b>(2) 50-100 Feet in Depth</b>			
b. 4.25 Inch ID	\$14.00 /Ft	90 Ft	\$1,260.00
d. 8.25 Inch ID	\$20.00 /Ft	50 Ft	\$1,000.00
<b>(3) 100-200 Feet in Depth</b>			
b. 4.25 Inch ID	\$15.00 /Ft	20 Ft	\$300.00
<b>2d. Mud Rotary</b>			
<b>(1) 0-50 Feet in Depth</b>			
f. 14 Inch Diameter Bit	\$27.00 /Ft	50 Ft	\$1,350.00
<b>(2) 50-100 Feet in Depth</b>			
f. 14 Inch Diameter Bit	\$40.00 /Ft	50 Ft	\$2,000.00
<b>(3) 100-200 Feet in Depth</b>			
e. 10 Inch Diameter Bit	\$28.00 /Ft	80 Ft	\$2,240.00
f. 14 Inch Diameter Bit	\$40.00 /Ft	20 Ft	\$800.00
<b>(4) Greater Than 200 Feet in Depth</b>			
a. 10 Inch Diameter Bit	\$30.00 /Ft	205 Ft	\$6,150.00
<b>6. Borehole Sampling</b>			
<b>6a. Split Spoon Sampling</b>			
<b>(1) 0-50 Feet in Depth</b>			
a. 2 Inch OD	\$15.00 /Sample	10 Samples	\$150.00
<b>(2) 50-100 Feet in Depth</b>			
a. 2 Inch OD	\$15.00 /Sample	30 Samples	\$450.00
<b>(3) 100-200 Feet in Depth</b>			
a. 2 Inch OD	\$20.00 /Sample	10 Samples	\$200.00
<b>(4) Greater Than 200 Feet in Depth</b>			
a. 2 Inch OD	\$25.00 /Sample	10 Samples	\$250.00
<b>7. Well Screen</b>			
<b>7a. PVC</b>			
<b>(2) 2 Inch ID Schedule 40</b>			
b. 10 Foot	\$11.50 /Ft	40 Ft	\$460.00
<b>7b. Stainless Steel</b>			
<b>(11) 6 Inch Diameter</b>			
b. 10 Foot	\$100.00 /Ft	40 Ft	\$4,000.00
<b>8. Well Riser</b>			
<b>8a. PVC</b>			
<b>(1) PVC Well Riser, Schedule 40</b>			
b. 2 Inch ID	\$5.00 /Ft	150 Ft	\$750.00







SCHEDULE 2.11 (f)4  
UNIT PRICE SUBCONTRACTS  
SUMMARY  
Franklin Cleaners Site  
Work Assignment Number: D003600-10

NAME OF SUBCONTRACTOR		SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Mitkem Corporation		Chemical Sample Analysis	\$7,987	\$0
Item	Method	Maximum Reimbursement Rate	Estimated No. of Units	Total Estimate Costs
<u>Groundwater</u>				
Chlorinated Vocs	601	\$75 /sample	20	\$1,500
Chlorinated Vocs	601	\$132 /sample (1)	1	\$132
Dissolved Iron	236.1	\$30 /sample	1	\$30
Dissolved Manganese	243.2	\$30 /sample	1	\$30
<u>Soil</u>				
Vocs	95-1	\$195 /sample (2)	1	\$195
TCLP Perchloroethylene	1311/601	\$100 /sample	1	\$100
Grainsize	ASTM D422	\$175 /sample (3), (4)	5	\$875
<u>Ambient Air (5)</u>				
Volatile Organics	311-9	\$85 /sample	42	\$3,570
<u>QA/QC Samples</u>				
<u>Groundwater</u>				
Matrix Spike				
Chlorinated Vocs	601	\$75 /sample	1	\$75
Dissolved Iron	236.1	\$30 /sample	1	\$30
Dissolved Manganese	243.2	\$30 /sample	1	\$30
Matrix Spike Duplicate				
Chlorinated Vocs	601	\$75 /sample	1	\$75
Dissolved Iron	236.1	\$30 /sample	1	\$30
Dissolved Manganese	243.2	\$30 /sample	1	\$30
Matrix Spike Blank				
Chlorinated Vocs	601	\$75 /sample	1	\$75
Trip Blank				
Chlorinated Vocs	601	\$75 /sample	3	\$225
<u>Soil</u>				
Matrix Spike				
Vocs	95-1	\$130 /sample	1	\$130
Matrix Spike Duplicate				
Vocs	95-1	\$130 /sample	1	\$130
Matrix Spike Blank				
Vocs	95-1	\$130 /sample	1	\$130
<u>Ambient Air</u>				
Duplicate				
Volatile Organics	311-9	\$85 /sample	7	\$595
SUBTOTAL				\$7,987
SUBCONTRACT MANAGEMENT FEE				\$0
TOTAL				\$7,987

- (1) Cost includes surcharge for 48 hour turn-around
- (2) Cost includes surcharge for 7- day turnaround
- (3) Cost includes seive and hydrometer analysis
- (4) Cost includes surcharge for 72-hour turnaround
- (5) A NYSDOH approved laboratory will be used for this analysis

SCHEDULE 2.11 (f)5  
UNIT PRICE SUBCONTRACTS  
Franklin Cleaners Site  
Work Assignment Number: D003600-10

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Waste Management, Inc.	Drum Removal and Disposal	\$4,560.00	\$0.00
<u>Item</u>	<u>Maximum Reimbursement Rate</u>	<u>Estimated No. of Units</u>	<u>Total Estimated Costs</u>
1. Transportation and disposal of drums			
a. Soil-drill cuttings	\$80.00 /drum	55 drums	\$4,400.00
b. PPE & Decon	\$80.00 /drum	2 drums	\$160.00
	SUBTOTAL		\$4,560.00
	SUBCONTRACT MANAGEMENT FEE		\$0.00
	TOTAL		\$4,560.00

**SCHEDULE 2.11 (g)  
SUMMARY**

Page 1 of 10  
Date Prepared:  
Billing Period:  
Invoice No.:

Project Name: Franklin Cleaners Site  
Work Assignment Number: D003600-10  
Task No./Name: All Tasks  
Complete: 0.00%

**MONTHLY COST CONTROL REPORT  
SUMMARY OF FISCAL INFORMATION**

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	71,237	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	112,768	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	184,005	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	633	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	10,515	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	11,148	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	104,957	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	300,110	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	15,456	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	315,566	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Engineer: Dvirka & Bartilucci  
 Contract No.: D003600  
 Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10

**SCHEDULE 2.11(g) SUPPLEMENTAL  
 MONTHLY COST CONTROL REPORT  
 SUBCONTRACTS**

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 Date Prepared:  
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 Invoice No.:

<u>Subcontract Name</u>	<u>Subcontract Costs Claimed this Application Including Resubmittals</u>	<u>Subcontract Costs Approved for Payment on Previous Application</u>	<u>Total Subcontract Costs to Date (A plus B)</u>	<u>Subcontract Approved Budget</u>	<u>Management Fee Budget</u>	<u>Management Fee Paid</u>	<u>Total Costs to Date</u>
1. YEC, Inc. (MBE)	0.00	0.00	0.00	3,599.47	0.00	0.00	0.00
2. Jamaica Blue Print Co., Inc. (WBE)	0.00	0.00	0.00	3,000.00	0.00	0.00	0.00
3. Uni-Tech Drilling Co., Inc.	0.00	0.00	0.00	79,859.00	2,795.07	0.00	0.00
4. Zebra Environmental Corp.	0.00	0.00	0.00	3,156.00	0.00	0.00	0.00
5. Mitkem Corporation (MBE)	0.00	0.00	0.00	7,987.00	0.00	0.00	0.00
6. Waste Management, Inc.	0.00	0.00	0.00	4,560.00	0.00	0.00	0.00
<b>Total</b>				<b>102,161.47</b>	<b>2,795.07</b>		

SCHEDULE 2.11 (g)

Page 3 of 10  
 Date Prepared:  
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 Invoice No.:

Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10  
 Task No./Name: 1/ Preparation of Work Plan  
 Complete: 0.00%

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	9,180	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	14,532	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	23,712	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	55	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	55	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	23,767	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	1,992	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	25,759	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10  
 Task No./Name: 2/Pre-design Studies  
 Complete: 0.00%

SCHEDULE 2.11(g)

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MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	18,220	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	28,843	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	47,063	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	59	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	5,582	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	5,642	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	36,035	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	88,740	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	3,953	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	92,693	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_



Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10  
 Task No./Name: 3/ Irrigation Well  
 Complete: 0.00%

**SCHEDULE 2.11(g)**

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 Date Prepared:  
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**MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION**

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	4,291	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	6,793	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	11,084	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	166	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	150	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	316	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	61,656	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	73,056	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	931	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	73,987	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10  
 Task No./Name: 4/ Plans and Specifications - SVE/Air Sparging System  
 Complete: 0.00%

SCHEDULE 2.11(g)

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 Invoice No.:

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	9,182	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	14,535	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	23,717	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	114	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	1,100	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	1,214	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	1,388	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	26,318	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	1,992	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	28,311	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10  
 Task No./Name: 5/Plans and Specifications - Groundwater Extraction System  
 Complete: 0.00%

SCHEDULE 2.11(g)

Page 7 of 10  
 Date Prepared:  
 Billing Period:  
 Invoice No.:

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	14,945	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	23,657	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	38,602	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	114	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	1,100	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	1,214	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	1,613	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	41,428	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	3,243	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	44,671	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10  
 Task No./Name: 6/Citizens Participation  
 Complete: 0.00%

SCHEDULE 2.11(g)

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 Date Prepared:  
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MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	2,141	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	3,390	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	5,531	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	26	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	50	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	76	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	5,607	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	465	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	6,071	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10  
 Task No./Name: 7/Pre-Award Services  
 Complete: 0.00%

**SCHEDULE 2.11(g)**

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 Date Prepared:  
 Billing Period:  
 Invoice No.:

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	6,816	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	10,790	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	17,606	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	11	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	11	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	17,617	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	1,479	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	19,096	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

Project Name: Franklin Cleaners Site  
 Work Assignment Number: D003600-10  
 Task No./Name: 8/Additional Requirements  
 Complete: 0.00%

SCHEDULE 2.11(g)

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 Date Prepared:  
 Billing Period:  
 Invoice No.:

MONTHLY COST CONTROL REPORT  
 SUMMARY OF FISCAL INFORMATION

Expenditure Category	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	6,461	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	10,228	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	16,690	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	88	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	2,533	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	2,621	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	4,265	0.00
8. Total Task Cost	0.00	0.00	0.00	0.00	0.00	0.00	23,576	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	1,402	0.00
10. Total Task Price	0.00	0.00	0.00	0.00	0.00	0.00	24,978	0.00

Project Manager (Engineer) \_\_\_\_\_

Date \_\_\_\_\_

MBE/WBE  
 UTILIZATION PLAN  
 Franklin Cleaners Site  
 Work Assignment Number: D003600-10

<u>Areas to be Subcontracted</u>	<u>Subcontractor Name</u>	<u>MBE/WBE</u>	<u>Total Subcontract Value</u>	<u>% MBE/WBE Utilization</u>
1. YEC, Inc.	Survey and Mapping	MBE	\$3,599.47	1.1%
2. Jamaica Blue Print Co., Inc.	Reproduction	WBE	\$3,000.00	1.0%
3. Mitkem Corporation	Laboratory Services	MBE	\$7,987.00	2.53%
Total MBE Utilization	<u>MBE Subcontract Value</u> Total Contract Value	=	<u>\$11,586</u> \$315,566	3.67%
Total WBE Utilization	<u>WBE Subcontract Value</u> Total Contract Value	=	<u>\$3,000</u> \$315,566	1.0%

**APPENDIX A**

**DRAFT TABLE OF CONTENTS FOR THE GROUNDWATER EXTRACTION AND  
TREATMENT SYSTEM ENGINEERING DESIGN REPORT**



- DRAFT -

**FRANKLIN CLEANER SITE  
GROUNDWATER EXTRACTION AND TREATMENT SYSTEM  
ENGINEERING DESIGN REPORT**

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**APPENDIX B**

**LETTERS OF APPROVAL FOR ACCEPTANCE OF PUMP TEST  
DISCHARGE AND ROAD CROSSING**

TOWN OF HEMPSTEAD  
DEPARTMENT  
OF  
HIGHWAYS

350 FRONT STREET, HEMPSTEAD, N.Y. 11550-4037  
(516) 489-5000



RICHARD V. GUARDINO, JR.  
SUPERVISOR

COUNCIL MEMBERS  
PATRICK A. ZAGARINO  
JOSEPH J. KEARNEY  
CURTIS E. FISHER  
ANTHONY J. SANTINO  
JOSEPH J. RA  
LINDA REED

DANIEL M. FISHER, JR.  
TOWN CLERK  
ANGIE M. CULLIN  
RECEIVER OF TAXES  
ANTHONY J. CALIFANO  
COMMISSIONER

April 30, 1999

David S. Glass, P.E.  
Dvirka and Bartilucci  
Consulting Engineers  
330 Crossways Park Drive  
Woodbury, NY 11797-2015

Re: Franklin Cleaners (Site Registry No. 1-30-050)  
NYSDEC Work Assignment No. D003600-10  
D&B No. 1640-1A

Dear Mr. Glass:

The Town of Hempstead has no objections to your plan as related in your letter of April 28, 1999. We do, however, have one request. Will you supply us with verification from Nassau County that the sewer manhole on Woodland Drive is in fact a County installation.

Very truly yours,

ANTHONY J. CALIFANO  
COMMISSIONER OF HIGHWAYS

*Darrol A. Lopez*  
BY: Darrol A. Lopez  
Deputy Commissioner



COUNTY OF NASSAU  
DEPARTMENT OF PUBLIC WORKS  
MINEOLA, NEW YORK 11501-4822

May 5, 1999

Dvirka & Bartilucci  
330 Crossways Park Drive  
Woodbury, NY 11797-2015

Attn: David S. Glass, P.E.

Re: Franklin Cleaners (Site Registry No. 1-30-050)  
NYSDEC Work Assignment No. D003600-10)  
D&B NO. 1640-1A  
Hempstead Ave., At Int. of Woodland Dr.  
Rockville Centre

Dear Mr. Glass:

With regard to your April 28, 1999 letter concerning the crossing of Hempstead Ave. at Woodland Drive with an above ground 2 inch hose to discharge well effluent into the sanitary sewer manhole on Woodland Drive, your proposal of posting "Bump Ahead" signs, lighted and reflectorized barrels at the center of the road where the hose crosses within the hose protection jacket is acceptable. As stated in your letter, the discharge point at the sewer manhole is to be continuously manned to ensure that protective cones/barrels are kept in their proper positions for public safety. The protective barrels must also be lighted and reflectorized for night visibility.

However, since the crossing is in close proximity to the Southern State Parkway overpass, an additional warning sign should be posted north of the parkway to augment the advance warning due to the restricted sight distance.

Please inform this office at 571-4184 when the work is scheduled. If I can be of further assistance, do not hesitate to call at the aforementioned number.

Very truly yours,

Kenneth H. Glupe  
Asst. Supt. of Hwy.  
& Drainage Construction

THOMAS S. GULOTTA  
COUNTY EXECUTIVE



JOHN M. WALTZ, P.E.  
COMMISSIONER

COUNTY OF NASSAU  
DEPARTMENT OF PUBLIC WORKS  
MINEOLA, NEW YORK 11501-4822

May 10, 1999

Mr. David S. Glass, P.E.  
Dvirka and Bartilucci  
330 Crossways Park Drive  
Woodbury, New York 11797-2015

**Re: Franklin Cleaners Site  
NYSDEC W.A. No. D003600-10**

Dear Mr. Glass:

Your request to discharge pump test water into the public sewer system, as a preliminary for design of a groundwater extraction system, has been reviewed and is conditionally acceptable.

The water/wastewater described in your request may be discharged to the Nassau County sewer manhole located on Woodland Drive just off of Hempstead Avenue. Tom Walsh and I have reviewed your proposal and concur with the proposed plan which includes appropriate safeguards (i.e., warning signs and lights, road crossing hose protection, temporary manhole cover with a small opening for the discharge line, full time attendance, etc).

This determination of approval for the proposed discharge is based on the non-hazardous nature and sewer acceptable quality of the water. Nassau County Department of Public Works policy prohibits discharge of site remediation water to the sanitary sewer system. Therefore, this approval is limited to well development and pump test water discharges.

Please provide us with a 48 hour advance notification by calling Tom Walsh at 516-571-7200 and my office at 516-571-7352. Your concern and cooperation are appreciated. If you have any questions with regard to this matter, please give me a call.

Very truly yours,

A handwritten signature in cursive script that reads "Maurice J. Osman".

Maurice J. Osman  
Chief Chemist

MJO:sm

c: Kenneth Glupe, NCDPW  
John J. Pascucci, NCDPW  
Richard Cotugno, NCDPW  
Thomas Walsh, NCDPW

A small, dark, handwritten mark or stamp, possibly initials, located in the lower right quadrant of the page.



**APPENDIX C**

**PARKWAY ACCESS PERMIT**



**PARK USE PERMIT**

LONG ISLAND STATE PARK REGION  
 PERMIT OFFICE, P.O. BOX 247, BABYLON, NEW YORK 11702  
 PHONE: (516) 669-1000 ext. 223

PERMIT NO. 99-998 \*AMENDED\* EXPIRATION DATE 12/31/99

ISSUED TO: SALVATORE ERVOLINA (518) 457-7924 DATE OF ISSUE 05/11/99  
DIRECTOR, BUREAU OF EASTERN REMEDIAL ACTION  
NYS DEC, ROOM 242  
50 WOLF RD.  
ALBANY, NY 12233-7010

PURPOSE: SAMPLING OF GROUNDWATER

LOCATION: Parkways - SOUTHERN STATE PARKWAY (RIGHT OF WAY)  
JUST WEST OF HEMPSTEAD AVE. OVERPASS

DATE(S) AND TIME(S): MAY 11 - DECEMBER 31, 1999

FEE, PAYABLE WITH RETURN OF ACCEPTANCE: \$ NONE (Write NONE if not applicable)

**CONDITIONS**

1. This permit does not constitute a waiver of any applicable vehicular use fee or park entry fee, which must be paid at point of entry. Vehicles must be parked in designated areas, and no reserved parking spaces will be assigned.
2. This permit may be used only by the designated permittee and only for the purpose, location and time period stated.
3. This permit is issued with the understanding that all use made of the area designated will be in conformity with the rules and regulations of the Long Island State Park Region and the instructions of the Park Manager.
4. For the purpose of identification, this permit must be carried on your person and be available if requested by a park officer or park employee.
5. The sale or vending of any foodstuffs, refreshments, merchandise, etc. is prohibited. Refreshment stands are available in every park and the operators of these stands have the exclusive license for the sale of all foodstuffs, refreshments, merchandise, etc. in the park area. Vendors, catering services, etc., are NOT PERMITTED TO ENTER THE PARKS TO DELIVER AND/OR SELL ANY FOODSTUFFS, BEVERAGES OR MERCHANDISE TO ANY GROUP OR ORGANIZATION. Arrangements for catering may be made through the park catering service ONLY. Call (516) 669-1000, extension 224 for information.

6. Special Conditions:
1. **TRAFFIC MAINTENANCE FOR VEHICLES IN ACCORDANCE WITH NYS MVTCD.**
  2. **NO TREES ARE TO BE REMOVED.**
  3. **ENTIRE AREA TO BE RESTORED TO ORIGINAL CONDITION.**

7. This permit is issued on the condition that the permittee shall be responsible for any and all damage to park property or facilities which may result from the permittee's use thereof. The permittee assumes all risks and shall hold harmless the State of New York, the New York State Office of Parks, Recreation and Historic Preservation and the Long Island State Park Region for injury or death arising out of an accident to themselves or others, resulting from activities under this permit or by reason of any unauthorized activities undertaken in contravention to the terms under which this permit is issued. Violation of the above rules or other Long Island State Park regulations will result in immediate revocation of permit (NO REFUND), possible issuance of summons and whatever other legal remedies the Long Island State Park Region deems necessary.

8. The Long Island State Park Region reserves the right to revoke this permit at any time.

\* PLEASE SIGN & RETURN ATTACHED BLUE COPY TO: PERMIT OFFICE, P.O. BOX 247, BABYLON, NY 11702. This permit is not valid until the attached blue copy is signed and returned to this office.

ACCEPTED BY *Salvatore Ervolina* PERMITTEE DATE 6/3/99 APPROVED *George Brown Jr* LONG ISLAND STATE PARK REGION