EXPANDED SITE INVESTIGATION

WORK PLAN

FOR

BLUE POINT LAUNDRY TARGETED SITE ASSESSMENT
BLUE POINT, NEW YORK

WORK ASSIGNMENT NO. D003600-35

DEC
Site No.
1-52-186

PREPARED FOR

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

BY

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
WOODBURY, NEW YORK

NOVEMBER 2003

EXPANDED SITE INVESTIGATION
WORK PLAN FOR
BLUE POINT LAUNDRY TARGETED SITE ASSESSMENT
BLUE POINT, NEW YORK

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Section 1

1.0 INTRODUCTION

On July 1, 2003, Work Assignment No. D003600-35 was issued to Dvirka and Bartilucci Consulting Engineers (D&B) by the New York State Department of Environmental Conservation (NYSDEC) to conduct an Expanded Site Investigation at the Blue Point Laundry Brownfield site in Blue Point, Suffolk County, New York. This investigation is being conducted by the NYSDEC using a grant from the United States Environmental Protection Agency (USEPA) Targeted Site Assessment Program.

The purpose of this document is to provide a site-specific Work Plan to conduct an Expanded Site Investigation and prepare a Remedial Alternatives Report for the site as defined by the NYSDEC. Generic field investigation procedures, quality assurance/quality control procedures, and health and safety procedures are provided in the "Quality Assurance/Quality Control Plan for Conducting Investigations at Brownfield Sites" and "Health and Safety Plan for Brownfield Site Investigations" which were prepared by D&B, and are included as Appendix A and Appendix B, respectively, and incorporated into this document by reference. The site-specific investigation program, including any site-specific modifications to the procedures described in the generic documents, is described in Section 3.0 of this document.

Section 1.0 of this Work Plan consists of the project schedule and project organization. Section 2.0 provides a site description and summary of background information for the site. Section 3.0 includes the technical scope of work for the Expanded Site Investigation based on the original scope of work prepared by the NYSDEC and modified based on a site inspection conducted by, and discussions between, D&B, the NYSDEC Project Manager and a representative of the Suffolk County Department of Health Services (SCDHS) on July 23, 2003. Section 3.0 also includes a sample summary matrix, site-specific QA/QC information, a site map with sample locations, and site-specific health and safety information. Section 4.0 provides the estimated budget for this project (Schedule 2.11 forms), including the assumptions used to develop the budget estimate, and the Minority Business Enterprise/Woman Business Enterprise (MBE/WBE) utilization plan.

1.1 Project Schedule

Task 1: Work Plan Development

- Submittal of Draft Work Plan 08/26/03
- NYSDEC, New York State Department of Health (NYSDOH) and SCDHS Review 11/14/03
- Submittal of Final Work Plan 11/21/03

Task 2: Field Investigation 01/05/04 - 02/13/04

- Drilling and Sampling Program ..... 01/05/04 - 01/16/04
- Laboratory Analysis ..... 4 weeks (complete 02/13/04)

Task 3: Expanded Site Investigation/Remedial Alternatives Report

- Submittal of Draft Site Investigation Report 04/09/04
- NYSDEC, NYSDOH and SCDHS Review 05/07/04
- Submittal of Final Report 05/21/04

1.2 Project Organization

NYSDEC Project Manager	Nancy Garry
D&B Project Director	Thomas Maher
D&B Project Manager	Kenneth Wenz
Health and Safety Officer	Kenneth Wenz
Quality Assurance/Quality Control Officer	Robbin Petrella
Field Operations Manager	Christopher Morris
Surveying Services	YEC, Inc. (MBE)
Geophysical Survey	Hager-Richter Geosciences, Inc. (WBE)
Direct Push Services	Zebra Environmental Corporation
Sample Analyses	Mitkem Corporation (MBE)

Section 2

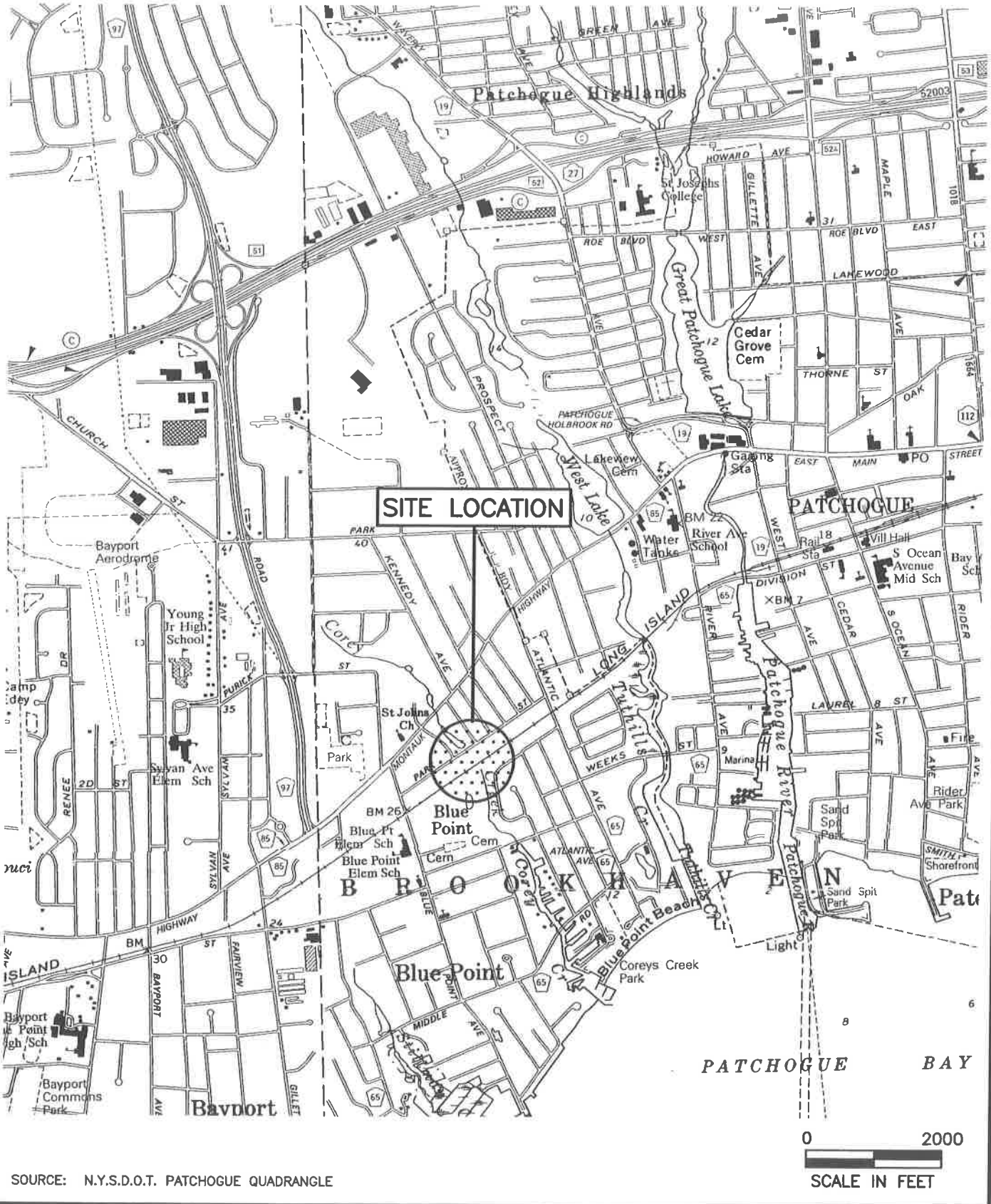
2.0 SUMMARY OF BACKGROUND INFORMATION

2.1 Site Description

The former Blue Point Laundry Site is located at 1 Park Street in Blue Point, Suffolk County, New York (see Figure 2-1). The property is located on the south side of Park Street and is bounded on the south by Long Island Railroad (LIRR) tracks, on the west by a residential property and on the east by a freshwater wetland area. According to correspondence from the NYSDEC, the wetlands boundary was determined (by NYSDEC) to be the north-south fence along the eastern edge of the former Blue Point Laundry property. A site inspection conducted by D&B and SCDHS personnel on July 30, 2003, confirmed that no wetland habitats are present on the site. Purgatory/Corey Creek flows from north to south across the eastern end of the site through a 24-inch diameter pipe.

The property is approximately 2.1 acres in size and consists of four tax parcels (District 0200, Section 982.30, Block 3, Lots 45, 46, 47 and 54). The tax map is shown on Figure 2-2. The western portion of the property is fairly flat. The eastern portion of the property is terraced and slopes downward from west to east. The site is currently fenced on all sides except along the LIRR tracks.

Two buildings were formerly located at the property (see Figure 2-3 for site layout). The eastern building was approximately 35,500 square feet in size, constructed of concrete block and contained the laundry operation. A boiler room reportedly with PCB-containing transformers and electrical switching equipment was located inside the southeastern portion of this building. Transformers are also shown near the southeastern corner of the property outside of the building (see Figure 2-3). It is unknown whether these transformers were pole-mounted or were located on the ground. The western building was approximately 6,800 square feet in size and constructed of metal. This building was used as a garage with a machine shop in the southeastern corner. The eastern portion of the property and the area between the buildings were utilized for parking.



SOURCE: N.Y.S.D.O.T. PATCHOGUE QUADRANGLE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BLUE POINT LAUNDRY EXPANDED SITE INVESTIGATION

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

SITE LOCATION MAP

FIGURE 2-1

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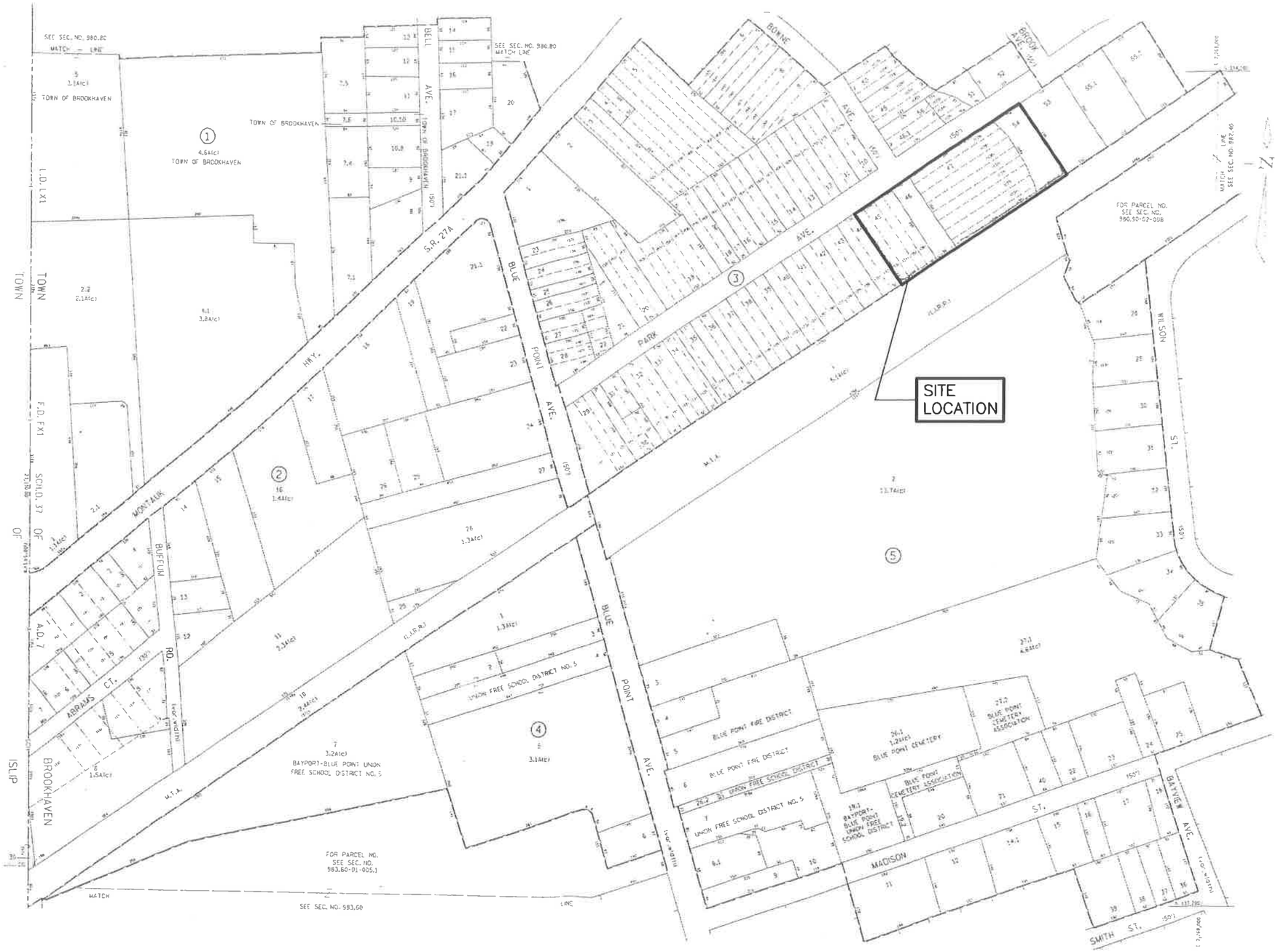

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BLUE POINT LAUNDRY EXPANDED SITE INVESTIGATION

TAX MAP

FIGURE 2-2

PROPERTY LINE

PARK STREET

REGIONAL GROUNDWATER FLOW DIRECTION

1 4,000 GALLON GASOLINE

SANITARY SYSTEM (APPROXIMATE)

001376000406
TVOC:U
Pb:U

002376000406
TVOC:U
Pb:45

001315000501
TVOC:28,220
Pb:25

005315000822

BP-1

2'x2' CATCH BASIN

2 500 GALLON DIESEL FUEL

FORMER GARAGE

MACHINE SHOP

003376000406
TVOC:86,860
Pb:2,400

001315000822
TVOC:U
Pb:1,120

BP-7
TVOC:U

002359000404
TVOC:U
Pb:470

PARKING

FORMER LAUNDRY BUILDING

006315000822
TVOC:160
Pb:252

PURGATORY/COREY CREEK IN SUBSURFACE PIPE

BP-2
TVOC:1

PARKING

BOILER ROOM WITH INTERIOR TRANSFORMERS

7 275 GALLON #2 FUEL OIL

8 10,000 GALLON #4 OR #6 FUEL OIL

9 10,000 GALLON NOT USED

6'x6' CATCH BASIN

STACK

002315000822
TVOC:NOT ANALYZED
Pb:330

BP-3
TVOC:U

TRANSFORMERS

2,000 GALLON STODDARD SOLVENT

3 4

3,000 GALLON STODDARD SOLVENT

500-1,000 GALLON STODDARD SOLVENT

5 6

PROPERTY LINE

SANITARY SYSTEM

BP-6
TVOC:U

BP-5
TVOC:3

BP-4
TVOC:1,761

003315000822
TVOC:U
Pb:38

LEGEND

- 2 — ABOVEGROUND STORAGE TANK AND DESIGNATION
- 1 — UNDERGROUND STORAGE TANK AND DESIGNATION
- EXISTING MONITORING WELL AND DESIGNATION
- HISTORIC SOIL, SEDIMENT OR SLUDGE SAMPLE LOCATION AND DESIGNATION
- DESTROYED MONITORING WELL AND DESIGNATION
- TVOC: TOTAL VOLAFILE ORGANIC COMPOUND CONCENTRATION IN PARTS PER BILLION
- Pb: LEAD CONCENTRATION IN PARTS PER MILLION
- U: UNDETECTED

NOTES:
ONLY KNOWN HISTORIC SAMPLE LOCATIONS ARE SHOWN
LOCATIONS ARE APPROXIMATE

0' 30'
SCALE IN FEET

LONG ISLAND RAILROAD

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BLUE POINT LAUNDRY EXPANDED SITE INVESTIGATION

SITE LAYOUT, HISTORIC SAMPLE LOCATIONS AND SAMPLE RESULTS

FIGURE 2-3

The depth to groundwater across the site ranges from approximately 3 feet below ground surface in the eastern portion of the property to approximately 20 feet below ground surface in the western portion of the property. The regional groundwater flow direction is to the southeast toward Patchogue Bay.

2.2 Site Use History

Blue Point Laundry began operations in 1921, although it is not known whether activities at the Park Street property began at that time or at a later date. Based on review of aerial photographs, the former laundry building at the Park Street property was constructed prior to 1947 and was expanded several times. The building was demolished in January 2001. The garage building was constructed between 1947 and 1962. Based on review of aerial photographs, this building was demolished between 1994 and 2000. The foundations for both buildings are still in place.

A total of nine storage tanks have been identified as historically in use at the site. Three of these were aboveground storage tanks (ASTs) and six were underground storage tanks (USTs). The approximate locations of the tanks are shown on Figure 2-3. The capacities and reported contents of the tanks are summarized in Table 2-1 and shown on Figure 2-3. According to SCDHS records, all of the tanks at the site have been closed, although documentation of SCDHS inspection of the tank removals is available for Tanks 8 and 9 only.

As shown on Figure 2-3, sanitary systems were located on the north and south sides of the former laundry building. Historic maps do not indicate the presence of a separate sanitary system for the garage building. In addition, two catch basins are shown within the parking area on the eastern portion of the property. The storm water entering these basins apparently discharged directly to Purgatory/Corey Creek.

According to SCDHS records, the Blue Point Laundry facility operated as a commercial laundry and dry cleaning facility. Stoddard Solvent, a mixture of straight-chain and cyclic aliphatic hydrocarbons and aromatic hydrocarbons (including substituted benzenes and

Table 2-1

BLUE POINT LAUNDRY SITE
SUMMARY OF IDENTIFIED STORAGE TANKS

Tank Number	Reported Contents	Location	Reported Capacity
1	Gasoline	Underground in northwest corner of site	4,000 gallons
2	Diesel Fuel	Aboveground inside garage building	500 gallons
3	Stoddard Solvent	Underground in southwest corner of site	2,000 gallons
4	Stoddard Solvent	Underground in southwest corner of site	3,000 gallons
5	Stoddard Solvent	Underground in rear of laundry building	500-1,000 gallons
6	Stoddard Solvent	Underground in rear of laundry building	500-1,000 gallons
7	#2 Fuel Oil	Aboveground outside southeast corner of laundry building	275 gallons
8	#4 or #6 Fuel Oil	Underground in southeast corner of laundry building	10,000 gallons
9	Not used	Aboveground in southeast corner of laundry building	10,000 gallons

substituted toluenes), was used as the dry cleaning fluid rather than tetrachloroethene. It is not known whether the garage and machine shop was operated as part of the Blue Point Laundry facility or by a separate operator. In 1986, an off-site facility for treatment and recharge of wastewater from site operations was constructed on the south side of the LIRR tracks. According to SCDHS personnel, there was a pipe that periodically carried overflow from the off-site treatment facility to Purgatory/Corey Creek.

Based on a SCDHS Consent Order signed by the property owners on August 7, 1991, and an inspection by the SCDHS of subsequent site occupant Nationwide Millworks, Inc. on November 25, 1991, Blue Point Laundry apparently went out of business in late 1991. The Consent Order concerned the failure to modify or replace a 10,000-gallon fuel oil storage tank (Tank 8).

After Blue Point Laundry ceased operations, Nationwide Millworks, Inc. occupied a portion of the former laundry building. An undated sketch map contained in the SCDHS files shows two other companies, Anthem Metal Products and FAB Machine, also occupying portions of the former laundry building. National Millworks, Inc. was a manufacturer of wooden moldings. No information regarding the activities conducted by Anthem Metal Products and FAB Machine was available. SCDHS files related to Nationwide Millworks, Inc. included two facility inspection reports, a field report documenting the cleanout of the main sanitary leaching pool and surveillance reports apparently related to odor complaints.

The initial facility inspection report, dated November 25, 1991, noted the presence of a stain and lacquer spray booth. A later report, dated July 25, 1994, cited the company for operating a paint spray booth without proper permits. The cleanout of the main leaching pool of the northern sanitary system occurred on June 13, 1995, when 1,500 gallons of liquid and 12 drums of sludge and soil were removed for off-site disposal. The odor complaint surveillance activities were conducted on nine separate occasions between August 28 and September 6, 1996, at locations downwind of the facility at various times of day and with various wind directions. The surveillance reports indicate that no odors were detected emanating from the Nationwide Millworks facility at any time during this period.

Suffolk County reportedly acquired the property in 1998 in lieu of back taxes. An additional property located at the northeast corner of Park Street and Bowne Avenue was acquired by Suffolk County in 1993 in lieu of back taxes. This property, reportedly the site of the offices for Blue Point Laundry, will not be addressed by this investigation.

2.3 Site Environmental History

The NYSDEC identified five spill numbers (83-2481, 85-2055, 86-4203, 91-08441 and 98-04645) associated with the former Blue Point Laundry Site. All of these, except 91-08441 have been closed, indicating that the NYSDEC investigation has been completed and that any required remediation has been conducted to the satisfaction of the NYSDEC. Open spill number 91-08441 is related to removal of the 10,000-gallon fuel oil tank. According to NYSDEC records, contamination was observed on groundwater when the tank was removed from the ground. Monitoring wells constructed as part of that investigation were last monitored in 1994. The locations and current conditions of these wells are unknown.

A letter dated April 28, 1986, from Blue Point Laundry to the SCDHS, states that the 4,000-gallon gasoline tank (Tank 1) had been abandoned, the 3,000-gallon and 2,000-gallon Stoddard Solvent tanks (Tank 3 and 4) were no longer in use, and that all remaining USTs at the site, except the 10,000-gallon #6 fuel oil UST (Tank 8 on Figure 2-3), would be abandoned by September 13, 1986. According to SCDHS records, all of the tanks at the site have been closed. Five of the six USTs (see Table 2-1) were reportedly removed in September 1986 and the 10,000-gallon UST was removed in November 1991. However, documentation of SCDHS inspection of the tank removals is available for only two tanks, the 10,000-gallon UST (Tank 8) and 10,000-gallon AST (Tank 9). It is unknown when the other two ASTs were removed from the site.

As described above, the main leaching pool of the northern sanitary system was cleaned out on June 13, 1995. A total of 1,500 gallons of liquid and 12 drums of sludge and soil were removed from the leaching pool for off-site disposal due to concentrations of methylene chloride

and metals (aluminum, iron and lead) in the liquid within the leaching pool that exceeded discharge criteria, and elevated concentrations of metals (aluminum, copper, iron, lead, manganese and zinc) in the leaching pool sediment. Based on endpoint sample results, no additional excavation was required.

The SCDHS has conducted several investigations at the property. The locations of soil, sediment, sludge and groundwater samples that could be determined are shown on Figure 2-3.

On April 4, 2000, a sediment sample was collected from an interior floor drain located on the northwest side of the former laundry building. The exact location of the floor drain is unknown. This sample was designated 002359000404 and was analyzed for volatile organic compounds (VOCs) and metals. On April 6, 2000, soil samples were collected from two of four sanitary leaching pools located in front (north) of the former laundry building (see Figure 2-3 for approximate locations). These samples were designated as 001376000406 and 002376000406, and were analyzed for VOCs and metals. A sediment sample from a floor drain within the former machine shop was also collected on April 6, 2000. This sample, designated 003376000406, was also analyzed for VOCs and metals. On May 1, 2000, a soil or sludge sample was collected from a "tank/pool" located on the north side of the former laundry building. This sample was designated 001315000501 and was analyzed for VOCs and metals.

Four surface soil samples (designated 001315000822, 002315000822, 003315000822 and 004315000822), one background surface soil sample (designated 005315000822) and one sludge sample (designated 006315000822) were collected on August 22, 2000. The four surface soil samples were collected in areas of stained or discolored soil. Sludge sample 006315000822 was collected from a settling tank that was located inside the former laundry building. Since during a December 2001 site inspection, the foundation in this portion of the building was intact with no evidence of disturbance, the settling tank was apparently not underground. The size of the settling tank is unknown. All of the samples collected on August 22, 2000, were analyzed for VOCs and metals except 002315000822, which was collected in an area of orange soil and analyzed for metals only. Sample locations, except for 004315000822, are shown on Figure 2-3. According to the SCDHS sampler, the map showing the location of sample 004315000822 could

not be found and the sample location is unknown. This sample did not contain VOCs or metals at concentrations exceeding SCDHS criteria.

Analytical results for the 11 soil, sediment and sludge samples are summarized in Table 2-2. VOCs were detected at concentrations above NYSDEC Recommended Soil Cleanup Objectives (RSCOs) and/or SCDHS Pumpout and Soil Cleanup Action Levels (SCDHS Action Levels) in only two samples. Sample 003376000406 collected from the former machine shop floor drain contained acetone, xylenes, substituted benzenes, substituted toluenes and naphthalene at elevated concentrations. The detection of these compounds suggests that Stoddard Solvent was likely used in the machine shop as a degreasing agent. Sample 001315000501 collected from the tank/pool on the north side of the laundry building contained elevated concentrations of benzene and chlorobenzene. Total VOC results for each sample are also summarized on Figure 2-3.

Ten of the eleven soil, sediment and sludge samples contained one or more metals at concentrations exceeding NYSDEC RSCOs and/or SCDHS Action Levels. However, for six of the ten samples, the exceedances were for copper, iron and/or zinc which are typically detected in soil on Long Island. The samples from the interior floor drain (sample 002359000404) and the stained soil area in the southwest corner of the property (sample 001315000822) contained lead at concentrations above RSCOs and/or SCDHS Action Levels (in addition to copper, iron and/or zinc). The machine shop floor drain (sample 003376000406) contained arsenic, barium, cadmium, chromium, copper, iron, lead, nickel and zinc at concentrations above RSCOs and/or SCDHS Action Levels. The sludge sample from the settling tank contained elevated levels of barium, cadmium, chromium, copper, iron, nickel and zinc. Lead results for each sample are also summarized on Figure 2-3.

On September 22, 2000, an additional sludge sample was collected from the settling tank that had been previously sampled on August 22, 2000. The sample was designated 001376000922 and was analyzed for leachable metals using the Toxicity Characteristic Leaching Procedure (TCLP). Analytical results showed that the metals in the material within the settling

Table 2-2
SUMMARY OF ANALYTICAL RESULTS FOR HISTORIC SOIL, SEDIMENT AND SLUDGE SAMPLES
BLUE POINT LAUNDRY SITE

SCDHS SAMPLE ID	002359000404	001376000406	002376000406	003376000406	001315000501	SCDHS Pumpout and Soil Cleanup Action Levels	NYSDEC Recommended Soil Cleanup Objectives
SAMPLE LOCATION	Interior Floor Drain	Sanitary Pool	Sanitary Pool	Machine Shop Floor Drain	Tank/Pool (East)		
SAMPLE TYPE	Sediment	Soil	Soil	Sludge	Soil/sludge		
SAMPLE DATE	4/4/00	4/6/00	4/6/00	4/6/00	5/1/00		
Volatile Organics, in ug/kg							
Acetone	U	U	U	560	U	400	200
Benzene	U	U	U	U	590	120	60
Chlorobenzene	U	U	U	U	24,000	3,400	1,700
Total Xylenes	U	U	U	1,400	U	2,400	1,200
n-Propylbenzene	U	U	U	1,400	120	600	--
p-Ethyltoluene	U	U	U	3,300	240	3,600	--
1,3,5-Trimethylbenzene	U	U	U	5,600	370	5,200	--
1,2,4-Trimethylbenzene	U	U	U	20,000	890	4,800	--
d-Limonene	U	U	U	U	U	--	--
p-Isopropyltoluene	U	U	U	3,900	U	7,800	--
1,4-Dichlorobenzene	U	U	U	U	900	10,000	8,500
p-Diethylbenzene	U	U	U	18,000	540	7,600	--
n-Butylbenzene	U	U	U	4,700	U	--	--
1,2-Dichlorobenzene	U	U	U	U	230	10,000	7,900
1,2,4,5-Tetramethylbenzene	U	U	U	11,000	210	10,000	--
Naphthalene	U	U	U	17,000	130	10,000	13,000

NOTES:

Only detected compounds reported.

U: Compound analyzed for but not detected.

Exceeds NYSDEC Recommended Soil Cleanup Objective.

Exceeds SCDHS Action Level.

Exceeds SCDHS Action Level and NYSDEC Recommended Soil Cleanup Objective.

Table 2-2
SUMMARY OF ANALYTICAL RESULTS FOR HISTORIC SOIL, SEDIMENT AND SLUDGE SAMPLES
BLUE POINT LAUNDRY SITE

SCDHS SAMPLE ID	001315000822	002315000822	003315000822	004315000822	005315000822	006315000822	SCDHS Pumpout and Soil Cleanup Action Levels	NYSDEC Recommended Soil Cleanup Objectives
SAMPLE LOCATION	Stained Soil (Southwest)	Orange Surface Soil	Gray Surface Soil (South)	Gray Surface Soil	Background Surface Soil	Settling Tank		
SAMPLE TYPE	Soil	Soil	Soil	Soil	Soil	Sludge		
SAMPLE DATE	8/22/00	8/22/00	8/22/00	8/22/00	8/22/00	8/22/00		
Volatile Organics, in ug/kg								
Acetone	U	Not analyzed	U	U	U	U	400	200
Benzene	U	Not analyzed	U	U	U	U	120	60
Chlorobenzene	U	Not analyzed	U	U	U	U	3,400	1,700
Total Xylenes	U	Not analyzed	U	U	U	U	2,400	1,200
n-Propylbenzene	U	Not analyzed	U	U	U	U	600	--
p-Ethyltoluene	U	Not analyzed	U	U	U	U	3,600	--
1,3,5-Trimethylbenzene	U	Not analyzed	U	U	U	U	5,200	--
1,2,4-Trimethylbenzene	U	Not analyzed	U	U	U	U	4,800	--
d-Limonene	U	Not analyzed	U	U	U	160	--	--
p-Isopropyltoluene	U	Not analyzed	U	U	U	U	7,800	--
1,4-Dichlorobenzene	U	Not analyzed	U	U	U	U	10,000	8,500
p-Diethylbenzene	U	Not analyzed	U	U	U	U	7,600	--
n-Butylbenzene	U	Not analyzed	U	U	U	U	--	--
1,2-Dichlorobenzene	U	Not analyzed	U	U	U	U	10,000	7,900
1,2,4,5-Tetramethylbenzene	U	Not analyzed	U	U	U	U	10,000	--
Naphthalene	U	Not analyzed	U	U	U	U	10,000	13,000

NOTES:

Only detected compounds reported.

U: Compound analyzed for but not detected.

Exceeds NYSDEC Recommended Soil Cleanup Objective.

Exceeds SCDHS Action Level.

Exceeds SCDHS Action Level and NYSDEC Recommended Soil Cleanup Objective.

Table 2-2
SUMMARY OF ANALYTICAL RESULTS FOR HISTORIC SOIL, SEDIMENT AND SLUDGE SAMPLES
BLUE POINT LAUNDRY SITE

SCDHS SAMPLE ID	002359000404	001376000406	002376000406	003376000406	001315000501	SCDHS Pumpout and Soil Cleanup Action Levels	NYSDEC Recommended Soil Cleanup Objectives
SAMPLE LOCATION	Interior Floor Drain	Sanitary Pool	Sanitary Pool	Machine Shop Floor Drain	Tank/Pool (East)		
SAMPLE TYPE	Sediment	Soil	Soil	Sludge	Soil/sludge		
SAMPLE DATE	4/4/00	4/6/00	4/6/00	4/6/00	5/1/00		
Metals, in mg/kg							
Aluminum	1,400	480	2,600	3,200	570	--	SB
Antimony	U	U	U	U	U	--	SB
Arsenic	U	U	U	**35**	U	25	7.5 or SB
Barium	55	U	25	**900**	20	--	300 or SB
Cadmium	4	U	U	**18**	U	10	10 or SB
Calcium	1,700	55	140	2,600	1,100	--	SB
Chromium	20	U	U	**70**	U	100	50 or SB
Copper	**100**	U	**150**	**300**	**210**	500	25 or SB
Iron	**15,000**	980	**2,700**	**40,000**	**25,000**	--	2,000 or SB
Lead	**470**	U	45	**2,400**	25	400	400*
Magnesium	540	70	230	2,500	230	--	SB
Manganese	100	15	U	180	90	--	SB
Nickel	10	U	U	**65**	U	1000	13 or SB
Potassium	U	U	U	150	U	--	SB
Silver	U	U	U	U	U	100	SB
Sodium	U	U	U	U	U	--	SB
Vanadium	30	U	U	10	U	--	150 or SB
Zinc	**250**	U	**25**	**510**	**430**	--	20 or SB

NOTES:

Only detected compounds reported.

U: Compound analyzed for but not detected.

SB: Site background.

*: Average background levels for lead in metropolitan or suburban areas or near highways typically range from 200 to 500 milligrams per kilogram.

Exceeds NYSDEC Recommended Soil Cleanup Objective.

Exceeds SCDHS Action Level.

Exceeds SCDHS Action Level and NYSDEC Recommended Soil Cleanup Objective.

Table 2-2
SUMMARY OF ANALYTICAL RESULTS FOR HISTORIC SOIL, SEDIMENT AND SLUDGE SAMPLES
BLUE POINT LAUNDRY SITE

SCDHS SAMPLE ID	001315000822	002315000822	003315000822	004315000822	005315000822	006315000822	SCDHS Pumpout and Soil Cleanup Action Levels	NYSDEC Recommended Soil Cleanup Objectives
SAMPLE LOCATION	Stained Soil (Southwest)	Orange Surface Soil	Gray Surface Soil (South)	Gray Surface Soil	Background Surface Soil	Settling Tank		
SAMPLE TYPE	Soil	Soil	Soil	Soil	Soil	Sludge		
SAMPLE DATE	8/22/00	8/22/00	8/22/00	8/22/00	8/22/00	8/22/00		
Metals, in mg/kg								
Aluminum	2,600	1,700	2,200	720	3,000	3,300	--	SB
Antimony	U	U	U	U	U	30	--	SB
Arsenic	15	U	U	U	U	U	25	7.5 or SB
Barium	180	75	33	U	14	**600**	--	300 or SB
Cadmium	U	U	U	U	U	**20**	10	10 or SB
Calcium	85	67	1,400	120	740	23,000	--	SB
Chromium	U	U	U	U	U	**195**	100	50 or SB
Copper	20	11	26	U	16	**660**	500	25 or SB
Iron	**4,100**	2,000	**7,000**	**2,100**	**5,900**	**23,000**	--	2,000 or SB
Lead	**1,120**	330	38	13	121	252	400	400*
Magnesium	140	120	305	122	480	11,000	--	SB
Manganese	U	U	29	25	57	390	--	SB
Nickel	U	U	U	U	U	**210**	1000	13 or SB
Potassium	53	U	130	U	160	540	--	SB
Silver	U	U	U	U	U	28	100	SB
Sodium	U	U	U	U	U	410	--	SB
Vanadium	U	U	U	U	17	U	--	150 or SB
Zinc	**44**	**23**	**56**	12	**98**	**3,500**	--	20 or SB

NOTES:

Only detected compounds reported.

U: Compound analyzed for but not detected.

SB: Site background.

*: Average background levels for lead in metropolitan or suburban areas or near highways typically range from 200 to 500 milligrams per kilogram.

Exceeds NYSDEC Recommended Soil Cleanup Objective.

Exceeds SCDHS Action Level.

Exceeds SCDHS Action Level and NYSDEC Recommended Soil Cleanup Objective.

tank were not significantly leachable (TCLP results were at least two orders of magnitude less than the total metals results) and that the sludge in the settling tank was non-hazardous.

On September 20, 2000, groundwater samples were collected at seven locations (BP-1 through BP-7) across the property. Samples were collected from 1-inch diameter well installed by the SCDHS using the direct push method. Two 1-inch diameter PVC monitoring wells corresponding to the locations of BP-4 and BP-6 (see Figure 2-3), were observed during a December 2001 site inspection. These wells were not located during the site inspection conducted on July 23, 2003. None of the other wells were found during the December 2001 or July 2003 site inspections. Each groundwater sample was collected at the water table for analysis of VOCs and metals. The sample analyzed for metals was not filtered. The sample results are summarized in Table 2-3. As shown in this table, groundwater at BP-4 located downgradient of the former Stoddard Solvent USTs (Tank 5 and 6 on Figure 2-3) has been significantly impacted by VOCs (total VOC concentration of 1,761 micrograms per liter). None of the other groundwater samples contained VOCs at concentrations exceeding NYSDEC Class GA groundwater standards or guidance values. Total VOC results for the groundwater samples are shown on Figure 2-3. Metals that exceeded groundwater standards included iron (four samples), lead (one sample), manganese (three samples) and sodium (three samples).

Asbestos abatement was performed within the interior of the former laundry building prior to its demolition in January 2001.

Table 2-3
SUMMARY OF GROUNDWATER SAMPLE RESULTS
BLUE POINT LAUNDRY SITE

SCDHS SAMPLE ID	BP-1	BP-2	BP-3	BP-4	BP-5	BP-6	BP-7	Class GA
SAMPLE DEPTH, feet	1-6	1-6	1-6	12-17	13-18	13-18	20-25	Standards and
SAMPLE DATE	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00	Guidance Values
Volatile Organics, in ug/l								
Trichloroethene	U	U	U	**21**	U	U	U	5
Tetrachloroethene	U	U	U	4	3	U	U	5
MTBE	U	1	U	U	U	U	U	--
Ethylbenzene	U	U	U	**16**	U	U	U	5
Total xylenes	U	U	U	**160**	U	U	U	5
n-Propylbenzene	U	U	U	**55**	U	U	U	5
1,3,5-Trimethylbenzene	U	U	U	**300**	U	U	U	5
1,2,4-Trimethylbenzene	U	U	U	**900**	U	U	U	5
p-Isopropyltoluene	U	U	U	**31**	U	U	U	5
p-Diethylbenzene	U	U	U	120	U	U	U	--
n-Butylbenzene	U	U	U	**38**	U	U	U	5
1,2,4,5-Tetramethylbenzene	U	U	U	**15**	U	U	U	5
Naphthalene	U	U	U	**23**	U	U	U	10 GV
sec-Butylbenzene	U	U	U	**27**	U	U	U	5
tert-Butylbenzene	U	U	U	**7**	U	U	U	5
Methyl sulfide	U	U	U	13	U	U	U	--
Dimethylsulfide	U	U	U	8	U	U	U	--
1-Methylethylbenzene	U	U	U	23	U	U	U	--
Metals, in ug/l								
Aluminum	122	701	875	280	170	280	43.2	--
Arsenic	U	5.73	U	U	U	U	U	25
Barium	49.8	114	67.6	17.5	22.4	14.5	22.9	1,000
Chromium	7.86	12.6	7.09	10.1	3.42	10.4	4.19	50
Cobalt	U	U	U	U	1.02	1.17	3.47	--
Copper	8.04	2.6	6.41	2.39	18.7	3.29	1.8	200
Iron	**8,320**	U	**16,600**	**4,540**	**790**	157	159	300 +
Lead	16.8	6.48	**33.1**	1.73	U	U	U	25
Manganese	**326**	**1,380**	**866**	160	143	42.4	**348**	300 +
Molybenum	U	U	U	1.72	1.56	2.51	4.87	--
Nickel	3.19	4.61	3.19	4.02	5.05	4.54	7.66	100
Selenium	U	U	U	U	U	3.08	U	10
Sodium	**36,700**	10,400	**59,700**	**116,000**	U	16,900	12,900	20,000
Titanium	5.25	17.3	14.8	7.08	4.58	13.9	1.33	--
Vanadium	2.5	5.32	7.99	4.17	4.58	2.64	1.01	--
Zinc	U	80.1	97.1	116	51.1	U	U	2,000 GV

NOTES:

Only detected compounds reported.
U: Compound analyzed for but not detected.
GV: Guidance value.
+: Sum of iron and manganese concentrations not to exceed 500 ug/l.
Bold Concentration exceeds Class GA groundwater standard or guidance value.

3.0 SCOPE OF WORK

This section presents the scope of work that has been developed for additional environmental investigation at the site, based on the historic information and previous sample results described in Section 2.0. As described above, the property at the northeast corner of Park Street and Bowne Avenue that formerly was the location of the Blue Point Laundry offices will not be addressed as part of this investigation. In addition, since only the property located north of the LIRR tracks is currently owned by Suffolk County, no investigation will be conducted south of the railroad. Since the southern edge of the former laundry building foundation is very close to the property boundary (see Figures 2-3 and 3-1), several of the proposed samples described below are located on the LIRR right of way. Based on discussions with the LIRR, additional insurance, training and a LIRR flagman will be required to obtain access to the right-of-way. It is assumed that a flagman will be required for 4 days during the field investigation. The costs for these items have been included in the project budget.

3.1 Wetlands Delineation

As described previously, correspondence from the NYSDEC and a site inspection conducted by D&B and SCDHS personnel on July 30, 2003, confirmed that no wetland habitats are present on the site. However, even though subsurface sampling is proposed within 100 feet of the wetland boundary (as determined by the NYSDEC, the north-south fence running along the eastern property boundary), a permit will not be required by the NYSDEC, as confirmed by the NYSDEC Project Manager.

3.2 Geophysical Survey

Since it has not been confirmed that all of the USTs historically present at the site have been removed, a geophysical survey will be conducted to evaluate whether locations of the identified USTs and any other undocumented USTs that may be present at the site. A second objective of the geophysical survey is to locate the structures associated with the two sanitary systems at the site and the two catch basins that likely discharged storm water to

PROPERTY LINE

PARK STREET

REGIONAL GROUNDWATER FLOW DIRECTION

1 4,000 GALLON GASOLINE

SANITARY SYSTEM (APPROXIMATE)

001376000406

002376000406

001315000501

005315000822

BP-1

2'x2' CATCH BASIN

PURGATORY/COREY CREEK IN SUBSURFACE PIPE

BP-2

PARKING

2 500 GALLON DIESEL FUEL

FORMER GARAGE

PARKING

002359000404

FORMER LAUNDRY BUILDING

006315000822

MACHINE SHOP

003376000406

001315000822

BP-7

BOILER ROOM WITH INTERIOR TRANSFORMERS

7 275 GALLON #2 FUEL OIL

8 10,000 GALLON #4 OR #6 FUEL OIL

9 10,000 GALLON NOT USED

6'x6' CATCH BASIN

BP-3

STACK

002315000822

FORMER TRANSFORMERS

2,000 GALLON STODDARD SOLVENT

3 4 3,000 GALLON STODDARD SOLVENT

500-1,000 GALLON STODDARD SOLVENT

5 6

SANITARY SYSTEM

PROPERTY LINE

BP-6

BP-5

BP-4

003315000822

LEGEND

- 2 ABOVEGROUND STORAGE TANK AND DESIGNATION
- 1 UNDERGROUND STORAGE TANK AND DESIGNATION
- EXISTING MONITORING WELL AND DESIGNATION
- HISTORIC SOIL, SEDIMENT OR SLUDGE SAMPLE LOCATION AND DESIGNATION
- DESTROYED MONITORING WELL AND DESIGNATION
- PROPOSED DIRECT PUSH SUBSURFACE SOIL AND GROUNDWATER SAMPLE LOCATION (13)
- PROPOSED DIRECT PUSH SUBSURFACE SOIL SAMPLE AND GROUNDWATER VERTICAL PROFILE BORING LOCATION (2)
- PROPOSED SOIL VAPOR SAMPLE LOCATION (4)
- PROPOSED DIRECT PUSH GROUNDWATER SAMPLE LOCATION (3)
- PROPOSED SEDIMENT SAMPLE LOCATION (2)
- PROPOSED SURFACE SOIL SAMPLE LOCATION (12)
- PROPOSED SHALLOW SUBSURFACE SOIL SAMPLE LOCATION (5)
- PROPOSED MONITORING WELL (1)

NOTES:
ONLY KNOWN HISTORIC SAMPLE LOCATIONS ARE SHOWN
LOCATIONS ARE APPROXIMATE

LONG ISLAND RAILROAD

0' 30'
SCALE IN FEET

F:\2150\2150-4.dwg, 11/17/03 01:56:33 PM, LGlubiak

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BLUE POINT LAUNDRY EXPANDED SITE INVESTIGATION

PROPOSED SAMPLE LOCATIONS

FIGURE 3-1

Section 3

Section 3

Purgatory/Corey Creek. The geophysical survey will include an electromagnetic survey using an EM-31 magnetometer along traverses with a 10-foot spacing throughout the site, excluding the building foundation areas. Both total magnetic field and vertical magnetic gradient will be measured. The magnetic data will be contoured and identified anomalies will be further investigated using ground penetrating radar (GPR). Identified anomalies will subsequently be investigated further by construction of soil borings, and collection of soil and groundwater for laboratory analysis.

3.3 Soil Vapor Sampling

In order to evaluate whether VOC contamination that may exist beneath the building foundations is migrating through the unsaturated zone, four soil vapor samples will be collected. As shown on Figure 3-1, two of these samples will be collected at the edge of the foundation of the former laundry building and two samples will be collected at the edge of the building foundation of the former garage. Each soil vapor sample will be collected from a depth of approximately 4 feet below ground surface using the direct push method. Samples will be collected in Tedlar® bags for analysis of VOCs using modified USEPA Method TO-14A.

3.4 Surface Soil Sampling

In order to facilitate redevelopment of the property, and due to the likely greatest potential for contact with contamination, characterization of surface soil quality is an important consideration regarding reuse of the property. Therefore, as shown on Figure 3-1, 11 surface soil samples will be collected from locations across the site and 1 surface soil sample will be collected from below the former No. 2 fuel oil AST outside southeast corner of laundry building (Tank 7 on Figure 3-1). These samples will each be collected from 0 to 2 inches below ground surface or below vegetation, and will be analyzed for Target Compound List (TCL) semivolatile organic compounds with a library search (SVOCs +10), TCL pesticides, herbicides, Target Analyte List (TAL) metals and cyanide. Since any VOCs present in outdoor surface soils have likely been volatilized to the atmosphere due to wind and precipitation, surface soil samples collected from outdoor areas will not be analyzed for VOCs. However, surface soil will be

screened using an organic vapor analyzer equipped with a photoionization detector (PID) to detect the possible presence of VOCs. Any samples exhibiting elevated PID readings will also be analyzed for VOCs with a library search (VOCs +10). The scope of work assumes that VOC analysis will not be performed on any surface soil sample.

3.5 Shallow Subsurface Soil Sampling

Since fill of unknown quality may have been used to develop the site, in particular the western portion of the property, shallow subsurface soil samples will be collected at four locations across the western portion of the property (see Figure 3-1). Each sample will be collected from 2 to 4 feet below ground surface and will be analyzed for TCL VOCs +10, TCL SVOCs +10, TAL metals and cyanide.

One additional shallow subsurface soil sample will be collected from the former location of exterior transformers in the southeastern portion of the property. Since debris from the building demolition is at the ground surface over much of the property, this sample will be collected from 1 to 3 feet below ground surface for analysis of PCBs only. Since the interior transformers were located within the building and the foundation appears intact, no sampling at the interior transformer area is proposed.

3.6 Subsurface Soil Sampling

Soil borings will be constructed at the site to evaluate subsurface soil quality. Except as noted below, at each location, soil samples will be collected continuously from ground surface to the water table using the direct push method. Upon retrieval, each sample will be screened for VOCs using a PID. The samples will also be geologically logged, including indications of contamination, such as odors or staining. The worst-case interval from above the water table based on PID readings, odors, staining, etc., will be submitted for laboratory analysis. If no worst-case interval is apparent, then the 2-foot interval immediately above the water table will be submitted for analysis. Each sample will be analyzed for TCL VOCs +10, TCL SVOCs +10, TAL metals and cyanide. Boring locations are shown on Figure 3-1.

One soil boring will be constructed on the south side of the exterior transformer area to evaluate potential impacts to soil from the transformers. If no worst-case interval is apparent, then the interval from 1 to 3 feet below ground surface will be submitted for analysis (consistent with the shallow subsurface soil sample to be collected in this area). Since this location is near the former location of transformers, the soil sample collected from the boring will be also be analyzed for PCBs.

As described in Section 2.3, soil samples were collected by the SCDHS from two leaching pools associated with the northern sanitary system. In order to evaluate soil and groundwater quality at the southern sanitary system and the remaining two leaching pools in the northern sanitary system, samples will be collected in these areas. As shown on Figure 3-1, two borings will be constructed at the northern sanitary system and one boring will be constructed at the southern sanitary system to determine whether they may be contaminant sources. At each location, a soil/sediment sample will be collected from 0 to 2 feet below the base of the structure using the direct push method. It is assumed that the leaching pools will be located during the geophysical survey to be performed at the site. If the leaching pool is not found at any location, then soil samples will be continuously collected from ground surface to the water table and the worst-case interval will be submitted for laboratory analysis.

The outdoor USTs and ASTs that were identified at the site also represent potential contaminant sources. Soil and groundwater sampling will be conducted to evaluate these locations. As shown on Figure 3-1, two soil borings will be constructed to investigate the 4,000-gallon gasoline UST (Tank 1) and the 10,000-gallon fuel oil UST (Tank 8), and one soil boring will be constructed at each of Tanks 3 and 4 which contained Stoddard Solvent. In addition, one boring will be constructed to investigate the 10,000-gallon AST (Tank 9), which was reportedly never used. If the geophysical survey indicates that any of the USTs are still present, then the borings to investigate that tank will be constructed adjacent to the tank location.

For the USTs, if no worst-case interval is apparent, then the sample to be analyzed will be collected immediately below the presumed invert of each UST (currently assumed to be 8 to 10

feet below ground surface for the 4,000-gallon UST, 6 to 8 feet below ground surface for the USTs 500 to 3,000 gallons in size, and 10 to 12 feet below ground surface for the 10,000-gallon UST). If groundwater is encountered shallower than the targeted depths, then the sample from immediately above the water table will be analyzed. For the 10,000-gallon AST, if no worst-case interval is apparent then the sample to be analyzed will be collected from 2 to 4 feet below ground surface. Sample locations and depths may be modified based on the results of the geophysical survey.

It is currently not known when the two parking areas identified at the property were paved. Two soil borings will be constructed to evaluate soil and groundwater quality in the parking areas. At each location, soil samples will be collected continuously from ground surface to the water table using the direct push method. Upon retrieval, each sample will be screened for VOCs using a PID. The samples will also be geologically logged, including indications of contamination, such as odors or staining. The worst-case interval from above the water table based on PID readings, odors, staining, etc., will be submitted for laboratory analysis of TCL VOCs +10, TCL SVOCs +10, TAL metals and cyanide. If no worst-case interval is apparent, then the sample from 2 to 4 feet below ground surface will be analyzed.

Soil samples will also be collected for laboratory analysis from above the water table at the two groundwater vertical profile locations (see Figure 3-1). One of these locations is immediately south/downgradient of the two smaller Stoddard Solvent USTs (Tanks 5 and 6), and the other location is located immediately south/downgradient of the floor drain in the former machine shop.

3.7 Surface Water Sediment Sampling

Since storm water apparently discharged directly into Purgatory/Corey Creek from the site, two sediment samples will be collected to evaluate potential impacts from site operations. These samples will be collected from the creek bed directly beneath the catch basins identified on historic site drawings (see Figure 3-1) and analyzed for TCL VOCs +10, TCL SVOCs +10, PCBs, TAL metals and cyanide.

3.8 Direct Push Groundwater Sampling

In order to assess groundwater quality at the site, a groundwater sample will be collected using the direct push method at each of the 13 soil boring locations. Each of these samples will be analyzed for TCL VOCs +10 and TCL SVOCs +10.

Shallow groundwater quality migrating off-site will be determined through sampling of three direct push sample locations between the building foundations and the LIRR tracks (see Figure 3-1 for locations). Each sample will be collected at the water table and analyzed for TCL VOCs +10, TCL SVOCs +10, TCL pesticides, herbicides, TAL metals and cyanide. Analysis of pesticides, herbicides, metals and cyanide will be performed at these locations to evaluate off-site migration of these parameters. If the turbidity in any direct push groundwater or well sample cannot be reduced to less than 50 Nephelometric Turbidity Units (NTUs), then the sample will be filtered at the laboratory and dissolved metals will be analyzed.

According to information provided by the NYSDEC, a significant clay layer has been identified in a nearby well at a depth of approximately 90 feet below ground surface. In order to provide an evaluation of the vertical distribution of contaminants that may be in groundwater migrating from the site, two vertical profile groundwater borings will be constructed using the direct push method at locations shown on Figure 3-1. As described in Section 3.5, the borings will also investigate the floor drain in the former machine shop and Tanks 5 and 6. At each location, the sampler will be driven to the top of the clay layer or 90 feet below ground surface (whichever comes first) and a groundwater sample will be collected. The sampler will then be retracted and additional samples collected at 10-foot intervals to the water table. Each sample will be analyzed for TCL VOCs +10 and TCL SVOCs +10.

3.9 Monitoring Well Construction and Sampling

Since the regional groundwater flow direction is to the southeast, the two existing monitoring wells that were identified in December 2001 (BP-4 and BP-6) are located

downgradient of the former laundry building. In order to determine the site-specific groundwater flow direction and to evaluate the quality of groundwater flowing onto the site, one additional monitoring well will be constructed in the northern portion of the property (see Figure 3-1), using the direct push method. The new well will be constructed using 10 feet of 1-inch diameter PVC screen and 1-inch diameter PVC casing. The well screen will be installed across the water table. It is assumed that the depth of the new well will be 25 feet below ground surface. The new well and the two existing wells will be developed/redeveloped to ensure that representative groundwater samples will be collected.

Shallow groundwater quality migrating onto the site and off-site will be determined through sampling of the three monitoring wells. Prior to sampling, each well will be purged of 3 to 5 casing volumes using a micro-bailer or peristaltic pump with new dedicated tubing. Similar to the direct push groundwater samples along the southern property boundary, the monitoring well samples will be analyzed for TCL VOCs +10, TCL SVOCs +10, TCL pesticides, herbicides, TAL metals and cyanide. If the turbidity in any direct push groundwater or well sample cannot be reduced to less than 50 NTUs, then the sample will be filtered at the laboratory and dissolved metals will be analyzed.

The three wells will be surveyed relative to a common random datum by a New York State-licensed surveyor, as described in Section 3.9. Depth to water measurements from the three wells will be used in conjunction with the survey data to develop a water table elevation contour map for the site which will be used to determine the site-specific groundwater flow direction.

A summary of the field investigation to be conducted at the Blue Point Laundry Site, including the soil, sediment and groundwater samples to be submitted for laboratory analysis, is provided in Table 3-1.

3.10 Site Survey

A base map of the property will be prepared by a New York State licensed surveyor. The base map will include the property boundaries, locations of significant on-site and nearby

TABLE 3-1
SUMMARY OF SAMPLES AND ANALYSES
BLUE POINT LAUNDRY SITE

AREA OF CONCERN	NUMBER OF SAMPLES	ANALYSIS						
		VOCs	SVOCs	Pesticides	PCBs	Herbicides	Metals	Cyanide
Soil Vapor								
Soil Vapor	4	X						
Soil/Sediment								
Surface Soil	12		X	X		X	X	X
Shallow Subsurface Soil (2-4')	4	X	X				X	X
Shallow Subsurface Soil (2-4')	1				X			
Subsurface Soil	12	X	X				X	X
Subsurface Soil	1	X	X		X		X	X
Vertical Profile Borings	2	X	X				X	X
Surface Water Sediment	2	X	X		X		X	X
Groundwater								
Vertical Profile Groundwater	18	X	X					
Direct Push Groundwater	13	X	X					
Direct Push Groundwater	3	X	X	X		X	X	X
New Monitoring Wells	1	X	X	X		X	X	X
Existing Monitoring Wells	2	X	X	X		X	X	X

features (building foundations, catch basins, streets, Purgatory/Corey Creek, LIRR tracks, etc.), locations of surface soil and soil borings, monitoring wells, and monitoring well elevations (relative to a common random datum).

3.11 Site-specific QA/QC Information

All samples will be analyzed using NYSDEC 2000 Analytical Services Protocol (ASP) methods with a 4-week turnaround time. A Category B data package will be provided. The data packages received from the laboratory will be reviewed and evaluated. A Data Usability Summary Report (DUSR) will be prepared. Full data validation will not be conducted.

3.12 Report Preparation

Following completion of the field activities, an Expanded Site Investigation/Remedial Alternatives Report (ESI/RAR) will be prepared. The report will provide a summary of background information, documentation of the field investigation, descriptions of sampling methods, evaluation of site-specific groundwater flow direction, maps showing sample locations and analytical results, tabulated analytical results by medium in comparison to applicable standards, criteria and guidelines, the DUSR, and evaluation of the nature and extent of soil and groundwater contamination. The report will also include a qualitative human health exposure assessment, and a fish and wildlife impact analysis. The fish and wildlife analysis will be prepared in accordance with Steps I and II(A) of the NYSDEC guidance document entitled "Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites", dated October 1994. Based on the sample results, the human health exposure assessment, and the fish and wildlife impact analysis, conclusions and recommendations will be developed regarding the need for remediation and/or additional investigation, if warranted.

If it is determined that remediation is required, remedial alternatives will be developed for the site based on planned future site use (if known), and qualitatively screened based on effectiveness, reliability, implementability and cost. Based on the results of this screening, recommendations regarding remedial alternatives that would be appropriate to the site will be

developed. A draft ESI/RAR will be submitted to the NYSDEC, the New York State Department of Health and the SCDHS for review, and comments received will be incorporated into a final report. The final report will also be provided to the NYSDEC electronically as a portable data format (PDF) document.

3.13 Site-specific Health and Safety Information

The following site-specific information will be filled out by project personnel for each site and will be posted on-site:

Site Name:	Blue Point Laundry Site	
Address:	1 Park Street	
	Blue Point, New York	
Date of HASP Preparation:	August 2003	
Date of Field Investigation:	January 2004	
Entry Objectives:	Site Characterization	
Site Organizational Structure:	Name	Telephone Number
Project Director:	Thomas Maher	(516) 364-9890
Project Manager:	Kenneth Wenz	(516) 364-9890
HSO:	Kenneth Wenz	(516) 364-9890
FOM/Alternate HSO:	Christopher Morris	(516) 364-9890
Field Team Staff:		
	Name	Telephone Number
Subcontractors:	Zebra Environmental Corp.	(516) 596-6300
	Mitkem Corporation	(401) 732-3400
	Hager-Richter Geosciences	(603) 893-9944

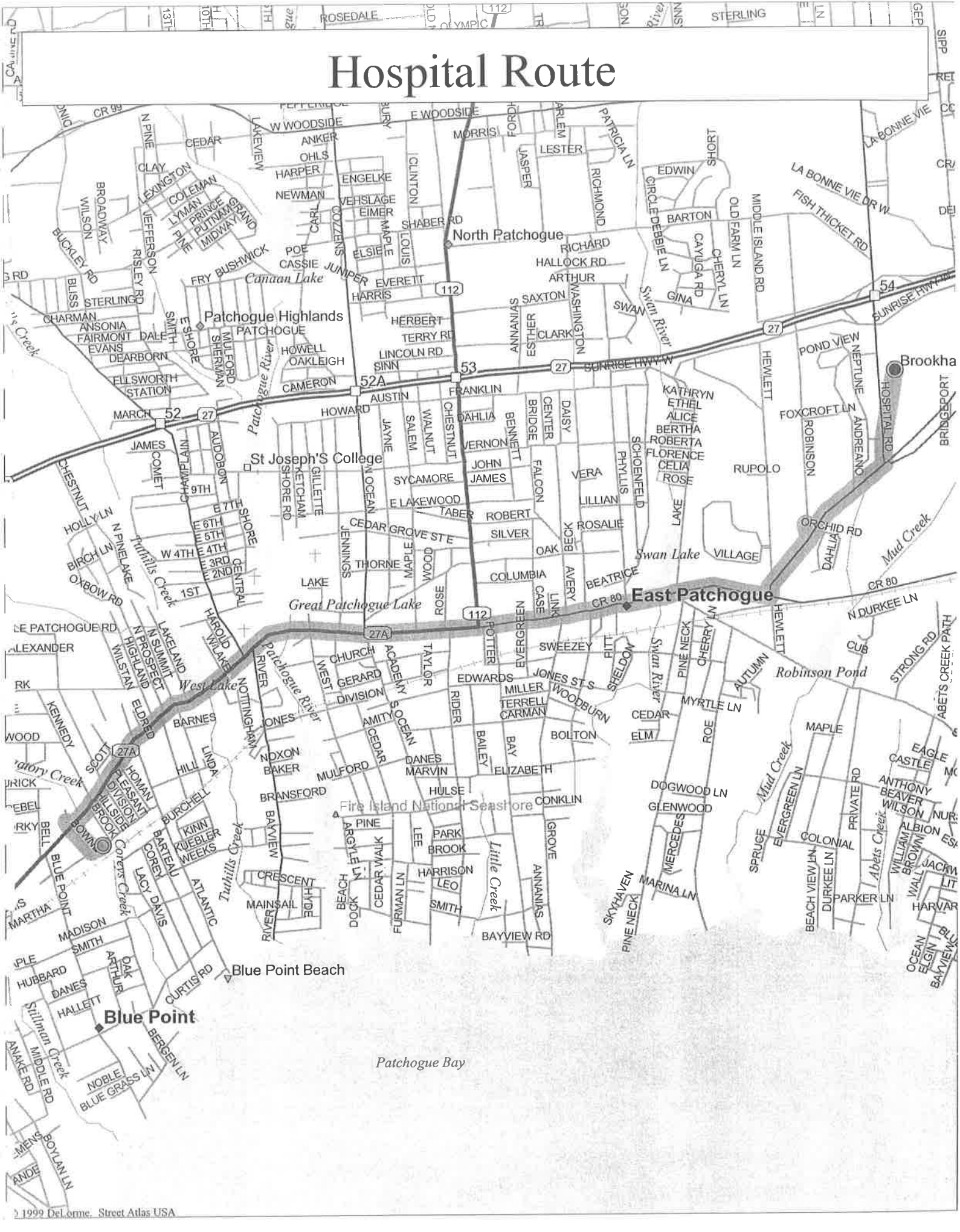
Medical Assistance Physician:	Plainview Medical Group, P.C.
	100 Manetto Hill Road
	Plainview, New York 11803
Telephone:	(516) 822-2541
Name of Hospital:	Brookhaven Memorial Hospital Medical Center
Address:	101 Hospital Road, East Patchogue
Telephone:	(631) 654-7100
Directions:	Follow Bowne Avenue north the Main Street/Route 27A. Turn right and follow Main Street for approximately 1.9 miles to Patchogue-Yaphank Road. Turn left and follow Patchogue-Yaphank Road for approximately 0.75 mile and turn left onto Hospital Road. Hospital is ahead on the right.
Route to hospital:	(see attached map)

Emergency Telephone Numbers:

Agent/Facility	Telephone No.	Emergency No.
EMS – Ambulance	(631) 475-1225	911
Police Department	(631) 854-8500	911
Fire Department	(631) 363-6310	911
Hospital	(631) 654-7100	(631) 654-7763
Poison Control Center		(516) 542-2323

Additional site-related information (may include special hazards, site control, waste storage and disposal, PPE, decontamination area location, special engineering controls, etc.).

Hospital Route



Section 4

4.0 SCHEDULE 2.11 FORMS

Budget assumptions:

- All field work can be completed with Level D personal protection;
- A wetlands permit will not be required;
- Site access for drilling and sampling will be secured by the NYSDEC or the SCDHS;
- Any required site clearing will be coordinated by the SCDHS;
- The direct push sampling method will be effective for sample collection and monitoring well construction;
- Decontamination water will be discharged to the ground surface in the vicinity of the decontamination area;
- Development and purge water will be disposed to the ground surface in the vicinity of the well;
- Existing monitoring wells BP-4 and BP-6 will be located and will be available for sampling;
- The newly constructed monitoring well and existing monitoring wells will be sampled approximately one week after development;
- Excess soil cuttings will remain at each site in the vicinity of the boring from which they were generated;
- Standard laboratory turnaround time of four weeks will be utilized;
- State-owned field equipment will be available for the duration of the project; and
- A public meeting will not be held for this project.

Schedule 2.11 (a)

Summary of Work Assignment Price
Blue Point Laundry Targeted Site Assessment

Work Assignment Number D003600-35

1.	Direct Salary Costs (Schedules 2.10 (a) and 2.11(b))	$17,058
2.	Indirect Costs (Schedule 2.10 (g))	$27,002
3.	Direct Non-Salary Costs (Schedules 2.11 (c)and (d))	$9,866

Subcontract Costs

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

Name of Subcontractor	Services To Be Performed	Subcontract Price
YEC, Inc. (MBE)	Surveying	$5,300
Hager-Richter Geoscience, Inc. (WBE)	Geophysical Survey	$5,703

4.	Total Cost-Plus-Fixed-Fee Subcontracts	$11,003

Unit Price Subcontracts (Schedules 2.11(f))

Name of Subcontractor	Services To Be Performed	Subcontract Price
Zebra Environmental Corp.	Direct Push Services	$8,855
Mitkem Corporation (MBE)	Sample Analysis	$38,675

5.	Total Unit Price Subcontracts	$47,530
6.	Subcontract Management Fee	$1,354
7.	Total Subcontract Costs (lines 4 + 5 + 6)	$59,886
8.	Fixed Fee (Schedule 2.10 (h))	$3,701
9.	Total Work Assignment Price (lines 1 + 2 + 3 + 7 +8)	$117,513

SCHEDULE 2.11 (b)
SUMMARY
Blue Point Laundry Targeted Site Assessment
WORK ASSIGNMENT NUMBER D003600-35

Average NSPE Wage Rates	IX	VIII	VII	VI	V	IV	III	II	I	TOTAL HOURS
as of July 1, 2003	$65.61	$61.47	$53.43	$43.03	$36.16	$30.54	$27.72	$24.06	$19.19	
Task 1 - Work Plan Development	4	0	0	0	70	0	0	32	0	106
Task 2 - Field Investigation	0	0	0	0	28	0	118	14	0	160
Task 3 - SI/RAR Report	8	0	0	0	188	0	16	46	0	258
Total 2003 Hours	12	0	0	0	286	0	134	92	0	524
Total Direct Labor Cost	$787	$0	$0	$0	$10,342	$0	$3,714	$2,214	$0	$17,057

SCHEDULE 2.11 (b)-1
SUMMARY
Blue Point Laundry Targeted Site Assessment
WORK ASSIGNMENT NUMBER D003600-35

Average NSPE Wage Rates	IX	VIII	VII	VI	V	IV	III	II	I	TOTAL HOURS
as of July 1, 2003	$65.61	$61.47	$53.43	$43.03	$36.16	$30.54	$27.72	$24.06	$19.19	
Task 1	0.5	0	0	0	4	0	0	8	0	12.5
Task 2	0.5	0	0	0	2	0	0	4	0	6.5
Task 3	0.5	0	0	0	2	0	0	8	0	10.5
Total 2003 Hours	1.5	0	0	0	8	0	0	20	0	29.5
Total Direct Labor Cost	$98	$0	$0	$0	$289	$0	$0	$481	$0	$869

Dvirka & Bartilucci Consulting Engineers
Blue Point Laundry Targeted Site Assessment
Work Assignment Number: D003600-35

BREAKDOWN OF ADMINISTRATIVE LOE HOURS ON SCHEDULE 2.11(b-1)

ADMIN ACTIVITY	WORK PLAN DEVELOPMENT														REVIEW WORK ASSIGNMENT (WA) PROGRESS													
	Conflict of Interest Checks						Prepare 2.11 Schedules								Conduct Progress Reviews						Prepare Monthly Report & Update Schedules							
NSPE	IX	VIII	VII	VI	V	IV	VIII	VII	VI	V	IV	III	II	I	VIII	VII	VI	V	IV	III	VIII	VII	VI	V	IV	III	II	I
TASK 1	0.5									4																		
TASK 2																								2				
TASK 3																								2				
TOTAL	0.5	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0

ADMIN ACTIVITY	REVIEW WORK ASSIGNMENT (WA) PROGRESS														CAP PREPARATION													
	MBE/WBE Activities								Program Management						Prepare Monthly Cost Control Report & CAP								Oversee CAP					
NSPE	VIII	VII	VI	V	IV	III	II	I	IX	VIII	VII	VI	V	IV	VIII	VII	VI	V	IV	III	II	I	IX	VIII	VII	VI		
TASK 1																					8							
TASK 2									0.5												4							
TASK 3									0.5												8							
TOTAL	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0		

ADMIN ACTIVITY	MISCELLANEOUS																											
	Update NSPE List								Equipment Use and Inventory				Word Proc. and Report Preparation				Total Adm. LOE (hrs)											
NSPE	VIII	VII	VI	V	IV	III	II	I	IV	III	II	I	IV	III	II	I	IX	VIII	VII	VI	V	IV	III	II	I			
TASK 1																	0.5				4			8				
TASK 2																	0.5				2			4				
TASK 3																	0.5				2			8				
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	0	8	0	0	20	0			

SCHEDULE 2.11 (c)
DIRECT NON-SALARY COSTS
SUMMARY
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

ITEM	MAXIMUM REIMBURSEMENT RATE	UNIT	ESTIMATED NUMBER OF UNITS	TOTAL ESTIMATED COSTS
IN-HOUSE				
Outside Services*	$200.00	set	0	$0.00
Express Mail	$20.00	package	10	$200.00
Sample Shipping	$50.00	shipment	12	$600.00
Level D Safety Equipment	$14.00	($/person/day)	12	$168.00
Level C Safety Equipment	$40.00	($/person/day)	0	$0.00
Level B Safety Equipment	$50.00	($/person/day)	0	$0.00
Long Island Railroad Flagperson	$700.00	($/person/day)	4	$2,800.00
Railroad Protective Insurance	$4,700.00	policy	1	$4,700.00
TRAVEL				
Transportation (Personal Car)	$0.36	mile	1500	$540.00
Van Rental	$325.00	week	1	$325.00
Gas	$50.00	week	1	$50.00
TOTAL DIRECT NON-SALARY COSTS				$9,383.00

* Includes photo finishing, slides and any other costs not associated with in-house capabilities.

SCHEDULE 2.11 (d) 1

EQUIPMENT PURCHASED UNDER THE CONTRACT
SUMMARY
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

ITEM	ESTIMATED PURCHASE PRICE	O&M RATE ($/per month)	TERM OF USAGE (MONTHS)	ESTIMATED USAGE COST (COL. 2 + [3X4])
			TOTAL	$0.00

Schedule 2.11 (d) 2
Summary

Maximum Reimbursement Rates for Consultant/Subconsultant - Owned Equipment
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

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)
						$0
					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
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

ITEM	MAXIMUM REIMBURSEMENT RATE	TIME PERIOD	ESTIMATED USAGE (period of time)	ESTIMATED USAGE COST (Col. 2 X 3)
Century OVA 128	$125.00	day	0	$0.00
Photovac Microtip	$125.00	day	0	$0.00
MIE Miniram Digital Dust Indicator	$85.00	day	0	$0.00
Horiba U22 Water Quality Meter	$100.00	day	0	$0.00
Solinst Water Level Indicator	$25.00	day	0	$0.00
Generator	$55.00	day	1	$55.00
Peristaltic Pump	$50.00	day	1	$50.00
Grunfos Pump	$125.00	day	0	$0.00
			Total	$105.00

SCHEDULE 2.11 (d) 4
SUMMARY
EXPENDABLE SUPPLIES
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

ITEM	ESTIMATED QUANTITY	UNITS	UNIT COST	TOTAL BUDGETED COST (COL. 2 X 3)
Disposable bailers	0.2	Case of 24	$200.00	$40.00
Tubing	150	Feet	$0.25	$37.50
			TOTAL	$77.50

SCHEDULE 2.11 (d) 5
CONSUMABLE SUPPLIES
SUMMARY
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

ITEM	ESTIMATED QUANTITY	UNIT COST	TOTAL BUDGETED COST (COL. 2 X 3)
Miscellaneous Supplies	3	$100.00	$300.00
		TOTAL	$300.00

HAGER-RICHTER GEOSCIENCE, INC.

Schedule 2.11 (e)
Phase I
Cost-Plus-Fixed-Fee Subcontracts

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
Hager-Richter Geoscience, Inc.	Geophysical Survey	$5,702.67

Direct Salary Costs

Professional Responsibility Level	Labor Classification	Average Reimbursement Rate ($/hr)	Max. Reimbursement Rate ($/hr)	Estimated No. of Hours	Total Estimated Direct Salary Cost (Ave. Reimb. Rate x Est. # of Hours)
Principal	VIII	49.13	49.48	4	196.52
Sen. Geoph.	IV	31.36	33.62	8	250.88
Geoph.	III	24.39	25.53	40	975.60
CAD/Jr. Geologist	II	20.37	21.78	40	814.80
Total Direct Salary Costs					$ 2,237.80

Footnotes:

1) These rates will be held firm until December 31, 2003.

2) Reimbursement will be limited to the lesser of either the individual's actual hourly rate or the maximum rate for each labor category.

3) Reimbursement will be limited to the maximum reimbursement rate for the professional responsibility level of the actual work performed.

4) Only those labor classifications indicated with an asterisk (*) will be entitled to overtime.

5) Reimbursement for technical time of principals, owners and officers will be limited to the maximum reimbursement rate of that labor category, the actual hourly rate paid, or the State of New York M-5 rate, whichever is lower.

6) The maximum rates in each labor category can be modified only by mutual written agreement and approved by both the Department and the Comptroller.

HAGER-RICHTER
GEOSCIENCE, INC.

7) This Footnote applies to Schedules for years 4 thru 7 only. If the U.S. cost-of living index increases at a rate greater than 6% compounded annually, the maximum salary rates will be subject to renegotiation for future years of the contract. There shall be no retroactive adjustments of payment as a result of renegotiated salary schedules.

A. Indirect Costs

Indirect Costs shall be paid based on a percentage of direct salary costs incurred which shall not exceed a maximum of 127.3 % or the actual rate calculated in accordance with 48 CFR Federal Acquisition Regulation, whichever is lower.

Amount budgeted for indirect costs is $2,848.72

C. Maximum Reimbursement Rates for Direct Non-Salary Costs

Item	Max. Reimbursement Rate (Specify Unit)	Est. No. of Units	Total Estimated Cost
1. Travel			
Mileage	0.25/mi	350	87.50
Tolls			20.00
2. Equipment Use			
Total Direct Non-Salary Costs			$107.50

D. Fixed Fee

The fixed fee is $508.65
See Schedule 2.10(h) for how the fixed fee should be claimed.

No wetland

Schedule 2.11(e)
Cost Plus Fixed-Fee Subcontracts

Former Blue Point Laundry Site

August 7, 2003

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
YEC, INC.	Survey & CAD Mapping	$5,289.07

A. Direct Salary Costs

Professional Responsibilty Level	Labor Classi-fication	Average Reimbursement Rate ($/Hr.)		Maximum Reimbursement Rate ($/Hr.)		Estimated Number of Hours	Total Estimated Direct Salary Cost ($)
Principal	VIII	2003	56.86	2003	61.43	2	113.72
Senior Geologist/Scientist/ Engineer/ Licensed Surveyor	V	2003	37.60	2003	41.36	20	752.00
Staff Geologist/ Scientist/Engineer	IV	2003	32.69	2003	35.95	0	0.00
Staff Geologist/ Scientist/Engineer/CAD Operator	III	2003	28.36	2003	31.47	8	226.88
Senior Technician/Staff Engineer/Scientist/Geologist	II	2003	20.98	2003	23.51	22	461.56
Technician/Draftsperson	I	2003	19.01	2003	21.30	22	418.22
						Total Direct Salary Costs:	1,972.38

B. Indirect Costs – 117% of direct salary cost

Indirect Costs: 2,307.68

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

Item	Maxium Reimbursement Rate	Estimated No. of Units	
Mileage	0.31 /mile	300 miles	93.00
Tolls	12.00 /trip	2 trips	24.00
CAD Equipment Costs	15.00 /hr	8 hrs	120.00
Survey Equipment Rental	65.00 day	2 day	130.00
		Total Direct Non Salary Costs:	367.00

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

Fixed Fee: 642.01

SCHEDULE 2.11 (f) 1
UNIT PRICE SUBCONTRACTS
SUMMARY
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Zebra Environmental Corporation	Direct Push Services	$8,855	$0

Item	Maximum Reimbursement Rate	Estimated No. of Units	Total Estimated Costs
1a Mobilization and demobilization, including site set-up breakdown, clean-up, repair and site restoration.	$625 Lump sum	1 1 Event	$625
1b Construction and removal of decontamination pad	$95 Lump sum	1 Event	$95
2 Well Set-up	$0 Per location	24 Locations	$0
3 Geoprobe System Truck/Van/ATV-Mounted Unit	$850 Per 8-hour day	4 6 Days	$5,100
4 Overtime Charge for On-site Work	$50 Per person hour	12 Person hour	$600
5 Probe Sampling			
a Groundwater Sampling	$9 Per sample	67 34 Samples	$306
c Macro Core Sampling	$9 Per 2-foot sample	165 Samples	$1,485
6c 1" PVC Well Construction	$3.25 Per foot	20' 35 Feet	$114
7 Flush-mounted Manhole/Vault	$52 Per manhole	1 Manhole	$52
8 Soil Vapor Samples	$6 $7 Per sample	5 4 Samples	$28
9 Standby Time	$75 Per hour	6 Hours	$450

SUBTOTAL	**$8,855**
SUBCONTRACT MANAGEMENT FEE	**$0**
TOTAL	**$8,855**

additional crew 2 days @ 175/day + 1,470 additional time

SCHEDULE 2.11 (f) 2
UNIT PRICE SUBCONTRACTS
SUMMARY
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Mitkem Corporation	**Sample Analysis**	**$38,675**	**$1,354**

Item	Method	Maximum Reimbursement Rate	Estimated Units	Total Estimated Cost
Soil Vapor				
VOCs	Modified TO14	$140.00 per sample	4 (changed 5@120 = 600)	$560.00
Groundwater				
VOCs	EPA SOW OLM04.2 (6/00 ASP)	$110.00 per sample	19,21 37	$4,070.00
SVOCs	EPA SOW OLM04.2 (6/00 ASP)	$200.00 per sample	13,18 37	$7,400.00
Pesticides	EPA SOW OLM04.2 (6/00 ASP)	$80.00 per sample	3 6	$480.00
Herbicides	8150	$200.00 per sample	3 6	$1,200.00
Metals	EPA SOW OLM04.2 (6/00 ASP)	$90.00 per sample	2,1 6	$540.00
Cyanide	335.2 CLP-M (6/00 ASP)	$20.00 per sample	2,1 6	$120.00
Soil/Sediment				
VOCs	EPA SOW OLM04.2 (6/00 ASP)	$110.00 per sample	3,18 21	$2,310.00
+10 SVOCs (additional Work)	EPA SOW OLM04.2 (6/00 ASP)	$225.00 per sample	7,5,30 33 43	$7,425.00
Pesticides	EPA SOW OLM04.2 (6/00 ASP)	$80.00 per sample	12 12	$960.00
PCBs	EPA SOW OLM04.2 (6/00 ASP)	$70.00 per sample	4 4	$280.00
Herbicides	8150	$200.00 per sample	12 12	$2,400.00
+10 Metals	EPA SOW OLM04.2 (6/00 ASP)	$90.00 per sample	7,5,30 33 43	$2,970.00
+10 Cyanide	335.2 CLP-M (6/00 ASP)	$20.00 per sample	7,5,30 33 43	$660.00
QA/QC Samples				
Groundwater				
Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank				
VOCs	EPA SOW OLM04.2 (6/00 ASP)	$110.00 per sample	2 6	$660.00
SVOCs	EPA SOW OLM04.2 (6/00 ASP)	$200.00 per sample	2,2 6	$1,200.00
Pesticides	EPA SOW OLM04.2 (6/00 ASP)	$80.00 per sample	2 3	$240.00
Herbicides	8150	$200.00 per sample	2 3	$600.00
Metals	EPA SOW OLM04.2 (6/00 ASP)	$90.00 per sample	2 3	$270.00
Cyanide	335.2 CLP-M (6/00 ASP)	$20.00 per sample	2 3	$60.00
Soil/Sediment				
Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank				
VOCs	EPA SOW OLM04.2 (6/00 ASP)	$110.00 per sample	2,2,2 6	$660.00
SVOCs	EPA SOW OLM04.2 (6/00 ASP)	$225.00 per sample	2,2,2 6	$1,350.00
Pesticides	EPA SOW OLM04.2 (6/00 ASP)	$80.00 per sample	2 3	$240.00
PCBs	EPA SOW OLM04.2 (6/00 ASP)	$70.00 per sample	2 3	$210.00
Herbicides	8150	$200.00 per sample	2 3	$600.00
Metals	EPA SOW OLM04.2 (6/00 ASP)	$90.00 per sample	2,2,2 6	$540.00
Cyanide	335.2 CLP-M (6/00 ASP)	$20.00 per sample	2,2,2 6	$120.00
Trip Blank				
VOCs	EPA SOW OLM04.2 (6/00 ASP)	$110.00 per sample	5	$550.00

SUBTOTAL	**$38,675.00**
SUBCONTRACT MANAGEMENT FEE	**$1,353.63**
TOTAL	**$40,028.63**

Project Name: Blue Point Laundry Targeted Site Assessment
Work Assignment No.: D003600-35
Task No./Name: All Tasks
Complete: 0.00%

SCHEDULE 2.11 (g)
SUMMARY

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	$17,058	0.00
2. Indirect 158.32	0.00	0.00	0.00	0.00	0.00	0.00	$27,002	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$44,060	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$915	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$8,951	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$9,866	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$59,886	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$113,812	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$3,701	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$117,513	0.00

Project Manager (Engineer) _____ Date _____

Project Name: Blue Point Laundry Targeted Site Assessment
Work Assignment No.: D003600-35
Task No./Name: 1/Work Plan Development
Complete: 0.00%

SCHEDULE 2.11 (g)

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	$3,564	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$5,642	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$9,205	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	$60	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$148	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$9,353	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$773	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$10,127	0.00

Project Manager (Engineer) _____ Date _____

Project Name: Blue Point Laundry Targeted Site Assessment
Work Assignment No.: D003600-35
Task No./Name: 2/Field Investigation
Complete: 0.00%

SCHEDULE 2.11 (g)

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	$4,620	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$7,314	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$11,934	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$827	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$8,751	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$9,578	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$59,886	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$81,397	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$1,002	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$82,400	0.00

Project Manager (Engineer) _____ Date _____

Project Name: Blue Point Laundry Targeted Site Assessment
Work Assignment No.: D003600-35
Task No./Name: 3/Project Reporting
Complete: 0.00%

SCHEDULE 2.11 (g)

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	$8,874	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$14,047	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$22,921	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$0	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$140	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$140	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$0	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$23,061	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$1,925	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$24,987	0.00

Project Manager (Engineer) _____ Date _____

Project Name: Blue Point Laundry Targeted Site Assessment
Work Assignment No.: D003600-35

SCHEDULE 2.11 (g) SUPPLEMENTAL
MONTHLY COST CONTROL REPORT
SUBCONTRACTS

Date Prepared:
Billing Period:
Invoice No.:

Subcontract Name	Subcontract Costs Claimed This Application Incl. Resubmittals	Subcontract Costs Approved for Payment on Previous Application	Total Subcontract costs to Date (A plus B)	Subcontract Approved Budget	Management Fee Budget	Management Fee Paid	Total Costs To Date
1. Zebra Environmental Corporatic	$0.00	$0.00	$0.00	$8,855	$0		
2. Mitkem Corporation	$0.00	$0.00	$0.00	$38,675	$1,354		
3. YEC, Inc.	$0.00	$0.00	$0.00	$5,300	$0		
4. Hager-Richter Geosciences	$0.00	$0.00	$0.00	$5,703	$0		
Total				$58,532	$1,354		

Schedule 2.11 (h)

Date Prepared:
Billing Period
Invoice No.

Project Name: Blue Point Laundry Targeted Site Assessment
Work Assignment No.: D003600-35

Monthly Cost Control Report
Summary of Labor Hours
Expended to Date/Estimated To Completion

NSPE Labor Classification	IX EXP/EST	VIII EXP/EST	VII EXP/EST	VI EXP/EST	V EXP/EST	IV EXP/EST	III EXP/EST	I & II EXP/EST	ADMIN/ SUPPORT	TOTAL NUMBER OF DIRECT LABOR HOURS EXP/EST
Task 1	0/ 4	0/ 0	0/ 0	0/ 0	0/ 70	0/ 0	0/ 0	0/ 24	0/ 8	0/ 106
Task 2	0/ 0	0/ 0	0/ 0	0/ 0	0/ 28	0/ 0	0/ 118	0/ 10	0/ 4	0/ 160
Task 3	0/ 8	0/ 0	0/ 0	0/ 0	0/ 188	0/ 0	0/ 16	0/ 38	0/ 8	0/ 258
Total 2003 Hours	0/ 12	0/ 0	0/ 0	0/ 0	0/ 286	0/ 0	0/ 134	0/ 72	0/ 20	0/ 524
TOTAL HOURS	0/ 12	0/ 0	0/ 0	0/ 0	0/ 286	0/ 0	0/ 134	0/ 72	0/ 20	0/ 524

MBE/WBE
UTILIZATION PLAN
SUMMARY
Blue Point Laundry Targeted Site Assessment
Work Assignment No. D003600-35

Areas to be Subcontracted	Subcontractor Name	MBE/WBE	Total Subcontract Value	% MBE/WBE Utilization
1. Sample Analysis	Mitkem Corporation	MBE	$38,675	32.9%
2. Surveying	YEC, Inc.	MBE	$5,300	4.5%
3. Geophysical Survey	Hager-Richter Geoscience, Inc.	WBE	$5,703	4.9%

Total MBE Utilization	MBE Subcontract Value / Total Contract Value	=	$44,378 / $117,513	37.8%
Total WBE Utilization	WBE Subcontract Value / Total Contract Value	=	$5,703 / $117,513	4.9%

Appendix A

APPENDIX A

QUALITY ASSURANCE PROJECT PLAN FOR BROWNFIELD SITE INVESTIGATIONS

QUALITY ASSURANCE PROJECT PLAN
FOR
BROWNFIELD SITE INVESTIGATIONS

PREPARED FOR

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

BY

DVIRKA AND BARTILUCCI
CONSULTING ENGINEERS

WOODBURY, NEW YORK

JULY 2003

QUALITY ASSURANCE PROJECT PLAN
FOR
BROWNFIELD SITE INVESTIGATIONS

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1.0 INTRODUCTION

The purpose of this Generic Quality Assurance Project Plan (QAPP) is to describe the detailed sample collection and analytical procedures that will ensure high quality, valid data for use in field investigations conducted at Brownfield sites. These sites include primarily active and inactive commercial and industrial properties. If any of the collection procedures, sample analysis or sample matrices are modified for a specific site investigation, detailed information regarding the changes and rationale for the change will be provided in a Site-Specific QAPP.

This document has been prepared in conformance with the United States Environmental Protection Agency (USEPA) Region 2 Brownfields Project Planning Guidance for Generic Brownfields Quality Assurance Project Plans, and New York State Department of Environmental Conservation (NYSDEC) guidelines for preparation of Quality Assurance and Quality Control Plans, including the 2000 Analytical Services Protocol (ASP).

2.0 SITE BACKGROUND

Prior to conducting field investigations at Brownfield sites, both Historical Data Review and Site Reconnaissance Reports will be generated during the preliminary investigation. These documents are described below.

2.1 Historical Data Review Report

The Historical Data Review Report will examine previous site operations and disposal practices to identify potentially contaminated areas of a Brownfield site. Sources of information include federal, state and local officials and files (e.g., site inspection reports and legal actions), deed or title records, former facility employees, local residents and facility records. Historical sampling data includes all available information, such as sample locations (on maps, if possible), matrices, methods of collection and analysis, and relevant contamination concentrations. The reliability and usefulness of existing analytical data will be evaluated and discussed in the Historical Data Review Report.

Historical data without documentation or QA/QC controls may still be useful, and will be included in the Historical Data Review Report. The Historical Data Review Report will describe site-specific chemical processes, raw materials, final products, wastes and waste storage/disposal practices. Site maps will be included and facility blueprints and aerial photographs will be included if they are available.

2.2 Site Reconnaissance Report

The Site Reconnaissance Report will evaluate site conditions to identify potentially contaminated areas and sampling hazards. The Site Reconnaissance Report corrects deficiencies in the Historical Review Report by:

- Interviewing local residents and past employees about site-related activities.
- Researching facility files and records (if available).

- Visiting and photographing the site.
- Delineating the presence or absence of the following site characteristics: waste disposal areas, lagoons, site wastes, dead animals, dead or stressed vegetation, and visible label information on drums, tanks and containers.

3.0 DATA USE OBJECTIVES

The data generated from the field investigations will be used to determine the nature, extent and source(s) of contamination at the site, prepare a qualitative human health risk and environmental assessment/site hazard assessment, and develop a cost-effective, environmentally sound, long-term remediation plan consistent with the planned use of the site. The data will also be utilized to monitor for the health and safety of workers at the site and potential off-site receptors.

3.1 Site Hazard Assessment Report

A Site Hazard Assessment Report will be prepared and include one or more of the following recommendations:

- No additional actions required.
- Additional sampling is required.
- Remediation and additional sampling are required.

The Site Hazard Assessment Report presents the data that justifies the above recommendations.

3.2 Data Quality Requirements and Assessment

Data quality requirements and assessments are provided in the 2000 NYSDEC ASP, which includes the detection limit for each parameter and sample matrix. Note that quantification limits, estimated accuracy, accuracy protocol, estimated precision and precision protocol are determined by the laboratory and will be in conformance with the requirements of the 2000 NYSDEC ASP and/or USEPA 5/99 SOW, where applicable. Table 3-1 presents a summary of the data quality requirements.

Table 3-1

DATA QUALITY REQUIREMENTS

Parameter	Sample Matrix	CRDL*	Estimated Accuracy	Accuracy Protocol**	Estimated Precision	Precision Protocol**
Volatile Organics	Liquid Solid	10 10	0.87 - 1.18 ug/l	Vol. IV, Part XIX, Method 8260, Table 7	0.11 - 0.84 ug/l	Vol. IV, Part XIX, Method 8260, Table 7
Base Neutrals	Liquid Solid	10-50 330-1600	0.29 - 1.23 ug/l	Vol. IV, Part XIX, Method 8270, Table 7	0.13 - 1.05 ug/l	Vol. IV, Part XIX, Method 8270, Table 7
Acid Extractables	Liquid Solid	10-50 330-1600	0.29 - 1.23 ug/l	Vol. IV, Part XIX, Method 8270, Table 7	0.13 - 1.055 ug/l	Vol. IV, Part XIX, Method 8270, Table 7
Pesticides/PCBs	Liquid Solid	0.5-1.0 8.0-160	0.66 - 0.97 ug/l	Vol. IV, Part XIX, Method 8081/8082, Table 4	0.15 - 0.47 ug/l	Vol. IV, Part XIX, Method 8081/8082, Table 4
Metals	Liquid Solid	0.2-5000 0.2-5000	--	Vol. III, Part XIV, Method 200.7*** Table 4	--	Vol. III, Part XIV, Method 200.7*** Table 4
Cyanide	Liquid Solid	10 10	85% - 102% of recovery	Vol. III, Part XV, Method 335.2, Subpart 10	±0.005 - +0.094 mg/l	Vol. III, Part XV, Method 335.2, Subpart 10

*Contract Required Detection Limits - units are ug/l for liquid samples, ug/kg for solid samples.
** Reference: NYSDEC 6/00 ASP.
***If trace ICP is not used, then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 3-1 (continued)

DATA QUALITY REQUIREMENTS
OBJECTIVES FOR PRECISION, ACCURACY, AND COMPLETENESS

Matrix/Parameter	Precision (%)	Accuracy (%)
Soil/Sediment		
VOCs[a]	See Table 3-1a	See Table 3-1a
Extractables[a]	See Table 3-1b	See Table 3-1b
Pesticides/PCBs	See Table 3-1c	See Table 3-1c
Metals[b][c]	± 25	75-125
Water		
VOCs[a]	See Table 3-1a	See Table 3-1a
Extractables[a]	See Table 3-1b	See Table 3-1b
Pesticides/PCBs	See Table 3-1c	See Table 3-1c
Metals[b][c]	± 25%	75-125

NOTES:

(a) Accuracy will be determined as percent recovery of surrogate spike compounds and matrix spike compounds. Surrogate and matrix spike compounds for VOCs, extractables, and pesticides/PCBs are listed in Table 3-2a, 3-2b and 3-2c, respectively. Precision will be estimated as the relative standard deviation of the percent recoveries per matrix.

(b) Accuracy will be determined as percent recovery of matrix spikes when appropriate or the percent recovery of a QC sample if spiking is inappropriate. Precision will be determined as relative percent difference of matrix spike duplicate samples, or duplicate samples if spiking is inappropriate.

(c) Precision will be determined as the average percent difference for replicate samples. Accuracy will be determined as the percent recovery of matrix spike samples or laboratory control samples, as appropriate.

Source: 2000 NYSDEC ASP

Table 3-1a

DATA QUALITY REQUIREMENTS
ACCURACY REQUIREMENTS FOR VOCs

	Spike Recovery Limits (%)	
	Water	Low/Medium Soil
Surrogate Compound		
Toluene-d8	88-110	84-138
4-Bromofluorobenzene	86-115	59-113
1,2-Dichloroethane-d4	76-114	70-121
Matrix Spike Compound		
1,1-Dichloroethene	61-145	59-172
Trichloroethane	71-120	62-137
Chlorobenzene	75-130	60-133
Toluene	76-125	59-139
Benzene	76-127	66-142

Source: NYSDEC ASP

Table 3-1b

DATA QUALITY REQUIREMENTS OBJECTIVES FOR PRECISION AND ACCURACY OF EXTRACTABLE COMPOUNDS BASED UPON RECOVERY OF SURROGATE AND MATRIX SPIKE COMPOUNDS*

Surrogate Compounds	Matrix	Precision	Accuracy %
d5-Nitrobenzene	Water	≤ 20	35-114
	Solid	≤ 25	23-120
2-Fluorobiphenyl	Water	≤ 20	43-116
	Solid	≤ 25	30-115
d14-Terphenyl	Water	≤ 20	33-141
	Solid	≤ 25	18-137
d5-Phenol	Water	≤ 20	10-110
	Solid	≤ 25	24-113
2-Fluorophenol	Water	≤ 20	21-110
	Solid	≤ 25	25-121
2,4,6-Tribromophenol	Water	≤ 20	10-123
	Solid	≤ 25	19-122
2-Chlorophenol-d4 (Advisory)	Water	≤ 20	33-110
	Solid	≤ 25	20-130
1,2-Dichlorobenzene-d4 (Advisory)	Water	≤ 20	16-110
	Solid	≤ 25	20-130

Table 3-1b (continued)

DATA QUALITY REQUIREMENTS OBJECTIVES FOR PRECISION AND ACCURACY OF EXTRACTABLE COMPOUNDS BASED UPON RECOVERY OF SURROGATE AND MATRIX SPIKE COMPOUNDS*

	Matrix	Precision	Accuracy %
Matrix Spike Compounds			
1,2,4-Trichlorobenzene	Water	≤ 20	39-98
	Solid	≤ 25	38-107
Acenaphthene	Water	≤ 20	46-118
	Solid	≤ 25	31-137
2,4-Dinitrotoluene	Water	≤ 20	24-96
	Solid	≤ 25	28-89
Pyrene	Water	≤ 20	26-127
	Solid	≤ 25	35-142
N-Nitroso-Di-n-Propylamine	Water	≤ 20	41-116
	Solid	≤ 25	41-126
1,4-Dichlorobenzene	Water	≤ 20	36-97
	Solid	≤ 25	28-104
Pentachlorophenol	Water	≤ 20	9-103
	Solid	≤ 25	17-109
Phenol	Water	≤ 20	12-110
	Solid	≤ 25	26-90
2-Chlorophenol	Water	≤ 20	27-123
	Solid	≤ 25	25-102

Table 3-1b (continued)

DATA QUALITY REQUIREMENTS OBJECTIVES FOR PRECISION AND ACCURACY OF EXTRACTABLE COMPOUNDS BASED UPON RECOVERY OF SURROGATE AND MATRIX SPIKE COMPOUNDS*

	Matrix	Precision	Accuracy %
Matrix Spike Compounds (continued)			
4-Chloro-3-methylphenol	Water	≤ 20	23-97
	Solid	≤ 25	26-103
4-Nitrophenol	Water	≤ 20	10-80
	Solid	≤ 25	11-114

* Accuracy will be determined as percent recovery of these compounds. Precision will be estimated as the relative standard deviation of the percent recoveries per matrix.

Source: NYSDEC ASP

Table 3-1c

ADVISORY RECOVERY LIMITS
SURROGATE AND MATRIX SPIKE COMPOUNDS
FOR PESTICIDES/PCBs*

	Advisory Recovery Limits (%)	
	Water	Soil/Sediment
Surrogate Compound		
Decachlorobiphenyl	60-150	60-150
Tetrachloro-m-xylene	60-150	60-150
Matrix Spike Compound		
Lindane	56-123	46-127
Heptachlor	40-131	35-130
Aldrin	40-120	34-132
Dieldrin	52-126	31-134
Endrin	56-121	42-139
4,4'-DDT	38-127	23-134

*Samples do not have to be reanalyzed if these recovery limits are not met.

Source: NYSDEC ASP

In addition to meeting the requirements provided in the 2000 NYSDEC ASP and/or USEPA 5/99 SOW, the data must be of sufficient quality to ensure that sampling data accurately characterizes site conditions. Data obtained during the site investigations will be compared to specific Standards, Criteria and Guidelines (SCGs). The SCGs to be utilized on a preliminary basis for screening purposes include:

Matrix	SCG
Groundwater and Surface Water	NYSDEC Division of Water Technical and Operational Guidance Series (TOGs) (1.1.1) - Ambient Water Quality Standards and Guidance Values, dated June 1998, addendum April 2000.
Surface and Subsurface Soil, Sediment and Sludge	NYSDEC Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046 for Determination of Soil Cleanup Objectives and Cleanup Levels, dated January 1994, as amended in December 2000.
Air	NYSDEC DAR-1, Guidelines for the Control of Toxic Ambient Air Contaminants, dated November 1997.*

* Including Complete and HAP Listings, AGCs, SGCs and Air Quality Standards for the DAR-1 Software Program.

Final selection of SCGs for site remediation and development will be based on the intended use of the property, potential receptors and potential contaminant migration pathways. These SCGs would consider the USEPA Region III Risk-Based Concentration Table.

For soil, groundwater and soil vapor samples, select volatile organics may be analyzed for utilizing a portable gas chromatograph (GC) and a modified USEPA Method 601. The water and soil samples will be analyzed via headspace. The standard operating procedures (SOP) for the portable GC and headspace analysis are provided in Appendix A.

The methods of analysis will be in accordance with the 2000 NYSDEC ASP and/or USEPA 5/99 SOW. Specific analytical procedures and laboratory QA/QC descriptions are not included in this QA/QC Plan, but will be available upon request from the laboratory selected to

perform the analyses. The laboratory will be New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified for organic and inorganic analyses and also be NYSDOH Contract Laboratory Protocol (CLP) certified.

3.2.1 Data Representativeness

Representative samples will be collected as follows:

- Soil Vapor - Samples will be collected from decontaminated stainless steel or dedicated polyethylene tubing soil probes after the soil vapor has reached equilibrium. Samples will be collected using a personal sampling pump and dedicated gas tight syringe or sorbent tube. See Section 6.3, Soil Vapor Collection Procedures.

- Surface Soil - Samples will be collected at a depth of 0-6 inches using a dedicated polystyrene scoop or sterile wooden tongue depressor.

- Subsurface Soil (Test Pit) - Samples will be collected from the center of the decontaminated bucket of the backhoe using a dedicated polyethylene scoop or sterile wooden tongue depressor.

- Subsurface Soil (Monitoring Well/Soil Boring) - Samples will be collected using a decontaminated steel split spoon sampler during monitoring well or soil boring construction.

- Subsurface Soil (Probe) - Samples will be collected using a decontaminated screen point sampler and dedicated acetate tube liner.

- Sediment/Sludge (Dry Well/Drainage System) - Samples will be collected from the center of the dry well, wastewater disposal/sanitary system, or catch basin and storm drain (if possible) after the drainage/storm water sample is obtained in order not to introduce sediment into the water column. Samples will be collected utilizing a decontaminated polyethylene long handle scoop (if possible) or from a soil probe or split spoon sampler.

- Wastewater/Drainage Water - Samples will be collected from the center of the wastewater disposal/sanitary system (if possible) and at a depth of 6 inches below the surface of standing water (if possible) using a dedicated polyethylene bailer or decontaminated polyethylene long handle scoop.

- Storm Water - Samples will be collected from the center of the drainage system or storm drain (if possible) at a depth of 6 inches below the surface of standing water (if possible) using a dedicated polyethylene bailer or decontaminated polyethylene scoop.

- Groundwater (Probe) - Samples will be collected immediately upon installation of the probe using dedicated polyethylene tubing equipped with a bottom check valve.

- Groundwater (Hydropunch) - Samples will be collected immediately upon installation of the hydropunch screen using a dedicated polyethylene small diameter bailer or hydropunch sampler.

- Groundwater (Monitoring Well) - Samples will be collected with a dedicated polyethylene bailer after the monitoring well has been purged of three to five well casing volumes until field measurements for pH, conductivity, temperature and turbidity have stabilized, or until the well is purged dry (whichever comes first) and the well has been allowed to recharge.

- Water Supply - Samples will be collected from the water supply wells, from an accessible point prior to any treatment systems (if possible) and will be collected directly into the sample container.

- Air - Samples will be collected using a dedicated sorbent tube and sampling pump.

- Equipment Calibration - Field equipment used for air monitoring will be calibrated daily before use according to the manufacturer's procedures.

- Equipment Decontamination - Nondedicated sampling equipment will be decontaminated prior to use at each location according to the procedures described in Section 7.0 of this QA/QC Plan.

3.2.2 Data Comparability

All data will be presented in the units designated by the methods specified by a NYSDOH ELAP and CLP certified laboratory, and the 2000 NYSDEC ASP and/or USEPA 5/99 SOW. In addition, sample locations, collection procedures and analytical methods from earlier studies will be evaluated for comparability with current procedures/methods.

3.2.3 Data Completeness

The acceptability of 100% of the data is desired as a goal for this project. The acceptability of less than 100% complete data, meeting all laboratory QA/QC protocols/ standards, will be evaluated on a case-by-case basis.

4.0 SAMPLING DESIGN

The following presents a general discussion of the sampling to be conducted during the field investigation.

- Soil Vapor - Soil vapor samples will be collected during soil vapor surveys to locate/confirm the source and extent of contamination on-site.
- Surface Soil - Surface soil samples will be collected on-site to determine the nature and extent of on-site surface soil contamination.
- Subsurface Soil - Subsurface soil samples will be collected during construction of monitoring wells and borings, test pits or at direct-push probe locations to determine the nature and extent of on-site subsurface soil contamination.
- Sediment/Sludge - Sediment and sludge samples will be collected from dry wells, storm drainage systems and/or wastewater disposal/sanitary systems located on-site to determine if collection/disposal systems are a source of contamination.
- Wastewater/Drainage Water - Waste water and drainage water samples will be collected from dry wells and/or wastewater disposal/sanitary systems located on-site to determine if these wells/systems are a source of contamination.
- Storm Water - Storm water samples will be collected from catch basins and storm drains located on-site to determine if the storm water system has been contaminated or is a source of contamination.
- Groundwater - Groundwater samples will be obtained from monitoring wells, direct-push probes or hydropunch sampling devices, which will be installed as part of the site investigation, or from monitoring wells, which were installed previously at the site, to determine if disposal of waste material on-site has impacted groundwater.
- Water Supply - Water supply samples will be collected from private water supply systems to determine if these systems are impacted by on-site (or off-site) contamination.
- Air - Ambient air samples will be collected on-site, particularly in structures, to determine potential exposure to vapor emissions as a result of on-site waste disposal or contaminated soil and/or groundwater underlying the site.

5.0 SAMPLING AND ANALYSES

5.1 Field Duplicates

Field duplicate samples may be collected to demonstrate the accuracy of field screening and un-validated laboratory data with limited analytical deliverables. If all environmental samples are analyzed by CLP methods, duplicate samples (if collected) will be taken at a frequency of at least 5% (1 in 20). However, if duplicate samples are collected for confirmation of field screening and laboratory data with limited analytical deliverables, at least 20% of the samples will be verified with duplicate samples analyzed by CLP methods for CLP TAL and TCL analytes. These CLP method duplicate sample requirements apply to each distinct matrix.

5.2 Matrix Spikes/Matrix Spike Duplicates and Spiked Blanks

Matrix spike samples are quality control procedures, consistent with 2000 NYSDEC ASP specifications, used by the laboratory as part of its internal Quality Assurance/Quality Control program. The matrix spikes (MS) and matrix spike duplicates (MSD) are aliquots of a designated sample (water or soil) which are spiked with known quantities of specified compounds. MS/MSD samples are used to evaluate the matrix effect of the sample upon the analytical methodology, as well as to determine the precision of the analytical method used. Samples to be analyzed as MS/MSDs may be designated in the field (that is, additional aliquots of a particular sample from the site may be collected) or they may be selected by the laboratory.

A matrix spike blank is an aliquot of analyte-free water, prepared in the laboratory, and spiked with the same solution used to spike the MS and MSD. The matrix spike blank (MSB) will be subjected to the same analytical procedure as the MS/MSD and used to indicate the appropriateness of the spiking solution by calculating the spike compound recoveries. The procedure and frequency regarding the MS, MSD and MSB samples are defined in the NYSDEC ASP.

5.3 Analytical Parameters

Analysis of water, soil and air/vapor samples will consist of all or a part of the Target Compound List (TCL) +30 and Target Analyte List (TAL) metals as identified in the New York State Department of Environmental Conservation (NYSDEC) 2000 Analytical Services Protocol (ASP) and USEPA Contract Laboratory Program (CLP) Statement of Work 5/99 (OLMO 4.2 and ILMO 4.0).

Table 5-1 presents a summary of the parameters/sample fraction to be analyzed together with the sample location, type of sample, sample matrix, type of sample container, method of sample preservation, holding time and analytical method. Superfund category deliverables are required for all analytical results in order to perform complete validation of the results.

5.4 Field Blank (Field Rinsate Blank)/Equipment Blank

Based upon discussion with the NYSDEC, field blanks will not be required for field investigations in which dedicated, disposable sampling equipment (for example, bailers or sterile scoops) are being utilized for sample collection. However, an equipment blank is required when a split spoon is utilized since it will be decontaminated after each use. Equipment blanks will be collected at a rate of one per day and analyzed for the same parameters as that of the samples collected with that equipment. The equipment blank will be collected by pouring laboratory supplied deionized water over/through the decontaminated equipment.

5.5 Trip Blanks (Travel Blanks)

The primary purpose of a trip blank is to detect other sources of contamination that might potentially influence contaminant values reported in actual samples, both quantitatively and qualitatively. The following have been identified as potential sources of contamination:

- Laboratory reagent water;
- Sample containers;

Table 5-1

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time	Analytical Method
On-site	Grab	Ambient Air	Volatile Organics	Tenax tube/1	Cool to 4°C	7 days for analysis	EPA/600/4-89/017 Method T-1/T02
On-site	Grab	Soil Vapor	Volatile Organics	Tenax tube/1	Cool to 4°C	7 days for analysis	EPA/600/4-89/017 Method T-1/T02

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

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Water Supply Wells, Monitoring Wells, and Probe and Hydropunch Locations	Grab	Groundwater	Volatile Organics	Glass, clear/ 40 mL/3 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Groundwater	Base Neutral and Acid Extractable Organics	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Groundwater	Pesticides/PCBs	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Groundwater	Metals	Plastic/1L/1 ICHEM 300 series or equivalent	HNO_3 to pH <2 Cool to 4°C	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0**
	Grab	Groundwater	Cyanide	Plastic/1L/1 ICHEM 300 series or equivalent	NaOH to pH >12 Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory
*Holding times based on the Generic Brownfields Quality Assurance Project Plan
**If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Dry Wells, Storm Drainage Systems and Wastewater Disposal/Sanitary Systems	Grab	Sediment/Sludge	Volatile Organics	Glass, clear/ 40 mL/2 ICHEM 200 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Sediment/Sludge	Base Neutral and Acid Extractable Organics	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Sediment/Sludge	Pesticides/PCBs	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Sediment/Sludge	Metals	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0**
	Grab	Sediment/Sludge	Cyanide	Glass, amber/ ICHEM 200 series or equivalent	Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory

*Holding times based on the Generic Brownfields Quality Assurance Project Plan

**If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
On-site Soil	Grab	Surface Soil	Volatile Organics	Glass, clear/ 40 mL/2 ICHEM 200 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Surface Soil	Base Neutral and Acid Extractable Organics	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Surface Soil	Pesticides/PCBs	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Surface Soil	Metals	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0**
	Grab	Surface Soil	Cyanide	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory

*Holding times based on the Generic Brownfields Quality Assurance Project Plan

**If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Monitoring Wells, Soil Borings, and Probe and Hydropunch Locations	Grab	Subsurface Soil	Volatile Organics	Glass, clear/ 40 mL/2 ICHEM 200 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Subsurface Soil	Base Neutral and Acid Extractable Organics	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Subsurface Soil	Pesticides/PCBs	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Grab	Subsurface Soil	Metals	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0**
	Grab	Subsurface Soil	Cyanide	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory

*Holding times based on the Generic Brownfields Quality Assurance Project Plan

**If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time	Analytical Method
Site	Trip Blank	Water	Volatile Organics	Glass, clear/ 40 mL/I ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2

VTSR - Verified Time of Sample Receipt at the laboratory

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Site	Matrix Spike and Matrix Spike Duplicate	Soil	Volatile Organics	Glass, clear/ 40 mL/2 ICHEM 200 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike and Matrix Spike Duplicate	Soil	Base Neutral and Acid Extractable Organics	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike and Matrix Spike Duplicate	Soil	Pesticides/PCBs	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike and Matrix Spike Duplicate	Soil	Metals	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0**
	Matrix Spike and Matrix Spike Duplicate	Soil	Cyanide	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory

*Holding times based on the Generic Brownfields Quality Assurance Project Plan

**If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Site	Matrix Spike and Matrix Spike Duplicate	Water	Volatile Organics	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike and Matrix Spike Duplicate	Water	Base Neutral and Acid Extractable Organics	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike and Matrix Spike Duplicate	Water	Pesticides/PCBs	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Matrix Spike and Matrix Spike Duplicate	Water	Metals	Plastic/1L/1 ICHEM 300 series or equivalent	Cool to 4°C HNO_3 to pH <2	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0**
	Matrix Spike and Matrix Spike Duplicate	Water	Cyanide	Plastic/1L/1 ICHEM 300 series or equivalent	NaOH to pH >12 Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory

*Holding times based on the Generic Brownfields Quality Assurance Project Plan

**If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.*	Sample Preservation	Maximum Holding Time**	Analytical Method
Laboratory	Method Blank	Water/Soil	Volatile Organics	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis of water 10 days for soil	6/00 NYSDEC ASP, Method OLMO 4.2
	Method Blank	Water/Soil	Base Neutral and Acid Extractable Organics	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Method Blank	Water/Soil	Pesticides/PCBs	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Method Blank	Water/Soil	Metals	Plastic/1L/1 ICHEM 300 series or equivalent	Cool to 4°C HNO_3 to pH <2***	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0****
	Method Blank	Water/Soil	Cyanide	Plastic/1L/1 ICHEM 300 series or	NaOH to pH >12** Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory

*ICHEM 200 bottles may be used for soil matrix
**Holding times based on the Generic Brownfields Quality Assurance Project Plan
***Preservative only required for water samples.
****If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Site	Spike Blank	Water	Volatile Organics	Glass, clear/ 40 mL/1 ICHEM 300 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Spike Blank	Water	Base Neutral and Acid Extractable Organics	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Spike Blank	Water	Pesticides/PCBs	Glass, amber/ 1L/2 ICHEM 300 series or equivalent	Cool to 4°C	5 days after VTSR for extraction 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Spike Blank	Water	Metals	Plastic/1L/1 ICHEM 300 series or equivalent	Cool to 4°C HNO_3 to pH <2	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0**
	Spike Blank	Water	Cyanide	Plastic/1L/1 ICHEM 300 series or equivalent	NaOH to pH >12 Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory

*Holding times based on the Generic Brownfields Quality Assurance Project Plan

** If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Site	Spike Blank	Soil	Volatile Organics	Glass, clear/ 40 mL/2 ICHEM 200 series or equivalent	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Spike Blank	Soil	Base Neutral and Acid Extractable Organics	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction, 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Spike Blank	Soil	Pesticides/PCBs	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	5 days after VTSR for extraction 40 days after extraction for analysis	6/00 NYSDEC ASP, Method OLMO 4.2
	Spike Blank	Soil	Metals	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	26 days after VTSR for Hg analysis, 6 months after VTSR for analysis of others	6/00 NYSDEC ASP, Method ILMO 4.0**
	Spike Blank	Soil	Cyanide	Glass, amber/ 150 mL/1 ICHEM 200 series or equivalent	Cool to 4°C	12 days after VTSR for analysis	6/00 NYSDEC ASP, Method 335.2

VTSR - Verified Time of Sample Receipt at the laboratory

*Holding times based on the Generic Brownfields Quality Assurance Project Plan

**If Trace ICP is not used then SW-846 Methods for:

Metal	Method
Selenium	7740
Lead	7421
Thallium	7841
Mercury	7470
Arsenic	7060

Table 5-1 (continued)

SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Container Type/Size/No.	Sample Preservation	Maximum Holding Time	Analytical Method
Laboratory	Holding Blank	Water	Volatile Organics	Glass, clear/ 40 mL/1	Cool to 4°C	7 days after VTSR for analysis	6/00 NYSDEC ASP, Method OLMO 4.2

VTSR - Verified Time of Sample Receipt at the laboratory

- Cross contamination in shipment;
- Ambient air or contact with analytical instrumentation during preparation and analysis at the laboratory; and
- Laboratory reagents used in analytical procedures.

A trip blank will consist of a set of 40 ml sample vials filled at the laboratory with laboratory demonstrated analyte free water. Trip blanks will be handled, transported and analyzed in the same manner as the samples acquired that day, except that the sample containers themselves are not opened in the field. Rather, these sample containers only travel with the sample cooler. The temperature of the trip blanks will be maintained at 4°C while on-site and during shipment. Trip blanks will return to the laboratory with the same set of bottles they accompanied in the field.

The purpose of a trip blank is to control sample bottle preparation and blank water quality as well as sample handling. Thus, the trip blank will travel to the site with the empty sample bottles and back from the site with the collected samples in an effort to simulate sample handling conditions. Contaminated trip blanks may indicate inadequate bottle cleaning or blank water of questionable quality. Trip blanks will be implemented only when collecting water samples, including field blanks, and analyzed for volatile organic compounds only.

5.6 Method Blanks/Holding Blanks

A method blank is an aliquot of laboratory water or soil which is spiked with the same internal and surrogate compounds as the samples. The purpose of the method blank is to define and determine the level of laboratory background contamination. Frequency, procedure and maximum laboratory containment concentration limits are specified in the 2000 NYSDEC ASP. A holding blank is an aliquot of analyte-free water that is stored with the environmental samples in order to demonstrate that the samples have not been contaminated during laboratory storage. This blank will be analyzed using the same analytical procedure as the samples.

6.0 STANDARD OPERATING PROCEDURES

Environmental samples will be collected from different locations as part of the field investigation. These include groundwater, wastewater, storm/drainage water, sediment/sludge, subsurface soil, surface soil, soil vapor and ambient air. Sample locations will consist of monitoring wells, water supply wells, dry wells, wastewater disposal/sanitary systems, direct push probe locations, hydropunch locations, storm water drainage systems, soil borings, surface soils, test pits, soil vapor points and ambient air. Actual locations will be determined on a site-specific basis.

General sampling approaches and equipment are described in this section. A summary of the sampling program, including sample media, depths, equipment, rationale and analytical parameters, is provided in Table 6-1.

When taking soil samples, an attempt will be made to maintain sample integrity by preserving its physical form and chemical composition to as great an extent as possible. An appropriate sampling device (i.e., decontaminated or dedicated equipment) will be utilized to transfer the sample into the sample container. The sample will reflect and contain a good representation of the matrix from which it was collected. The sample will be transferred into the sample container as quickly as possible, with no mixing, to ensure that the volatile fraction is not lost.

The materials involved in groundwater sampling are critical to the collection of high quality monitoring information, particularly where the analyses of volatile, pH sensitive or reduced chemical constituents are of interest. The materials for bailers and pump parts will be PTFE (e.g., Teflon^{R}) stainless steel and/or polyethylene.

Table 6-1

SUMMARY OF SAMPLING PROGRAM

Environmental Media	Sample Location	Sample Point	Sample Depth	Equipment	Rationale	Sample Analysis
Soil Vapor	On-site	Soil vapor survey point	3 feet below soil surface	Decontaminated or disposable soil vapor rods/ tubing, gas tight syringe or sorbent tube and personal sampling pump	To determine soil contamination	TCL volatile parameters EPA 600/4-89/017 or select VOCs by Portable GC (EPA Method 601)
Surface Soil	On-site	Throughout site	0-2 inches below soil surface	Disposable polyethylene scoop and/or sterile wooden tongue depressor	To determine surface soil contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Subsurface Soil	On-site	Test pit	Dependent on visual characteristics and total organic vapor field screening	Decontaminated backhoe bucket, disposable polyethylene scoop and sterile wooden tongue depressor	To determine subsurface soil contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Sediment/Sludge	On-site	Dry well/catch basin/wastewater/ sanitary system/storm drain	0-6 inches below sediment surface	Decontaminated polyethylene scoop or split spoon sampler	To determine sediment contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Wastewater	On-site	Wastewater/ Sanitary System	6 inches below water surface	Decontaminated long handle polyethylene scoop or polyethylene bailer	To determine drainage wastewater contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Drainage/Storm Water	On-site	Dry well/catch basin/ storm drain	6 inches below water surface	Decontaminated long handle polyethylene scoop or polyethylene bailer	To determine storm water contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP

Table 6-1 (continued)

SUMMARY OF SAMPLING PROGRAM

Environmental Media	Sample Location	Sample Point	Sample Depth	Equipment	Rationale	Sample Analysis
Subsurface Soil	On-site	Monitoring well borehole/soil boring	Dependent on visual characteristics and total organic vapor field screening	Auger, decontaminated split spoon and sterile wooden tongue depressor	To determine subsurface soil contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Subsurface Soil	On-site	Probe location	Dependent on visual characteristics and total organic vapor field screening	Decontaminated probe and polyethylene tube liner	To determine subsurface soil contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Groundwater	On-site	Probe location	At surface of water in probe	Disposable polyethylene tubing with bottom check valve	To determine groundwater contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Groundwater	On-site	Hydropunch location	At surface of water in screen	Disposable polyethylene - small diameter bailer	To determine groundwater contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Groundwater	On-site	Monitoring well	At surface of water in well	Disposable polyethylene bailer (after purge of three well volumes)	To determine groundwater contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Water Supply	On-site	Prior to treatment system, if possible, or from faucet	NA	Sample container directly after running water for 5 minutes	To determine water supply contamination	TCL +30 and TAL parameters + CN 2000 NYSDEC ASP
Air	On-site	Ambient Air	Breathing Zone	Personal sampling pump and dedicated sorbent tube	To determine air contamination and worker exposure	TCL VOC EPA 600/4-89/017

Table 6-1 (continued)

SUMMARY OF SAMPLING PROGRAM

Environmental Media	Sample Location	Sample Point	Sample Depth	Equipment	Rationale	Sample Analysis
Air	On-site	Drilling and sample locations	In the breathing zone and at point of sample collection	Photoionization and/or flame ionization detector	To screen for air contamination	Total organic vapors

NA - Not applicable.

There will be several steps taken after the transfer of the soil or water sample into the sample container that are necessary to properly complete collection activities. Once the sample is transferred into the appropriate container, the container will be capped and, if necessary, the outside of the container will be wiped with a clean paper towel to remove excess sampling material. The container will not be submerged in water in an effort to clean it. Rather, if necessary, a clean paper towel moistened with distilled/deionized water will be used.

The sample container will then be properly labeled. Information such as sample number, location, collection time and sample description will be recorded in the field log book. Associated paper work (e.g., Chain of Custody forms) will then be completed and will stay with the sample. The samples will be packaged in a manner that will allow the appropriate storage temperature to be maintained during shipment to the laboratory. Samples will be delivered to the laboratory within 48 hours of collection.

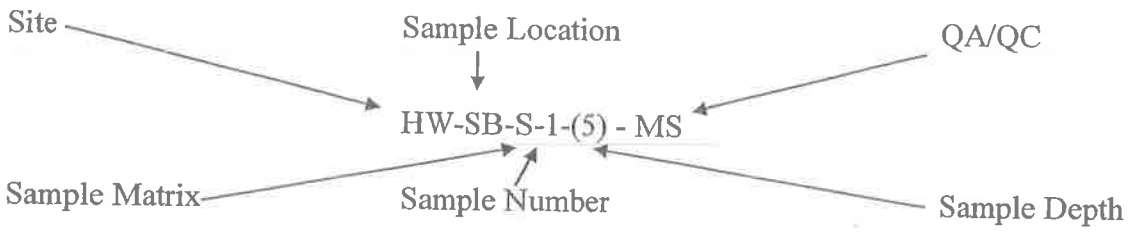
6.1 Sample Identification

All samples collected will be labeled with a sample identification code. The code will identify the site, sample location, sample matrix and series numbers for sample locations with more than one sample. Samples will be labeled according to the following system:

- Site: - Site name (i.e., Hazardous Waste "HW")
- Sample Location:
  - Soil Boring "SB"
  - Monitoring Well "MW"
  - Water Supply "WS"
  - Dry Well "DW"
  - Surface Soil "SS"
  - Hydropunch "H"
  - Probe "P"
  - Test Pit "TP"
  - Storm Drain "SD"
  - Sanitary System Leaching Pool "LP"
  - Sanitary System Septic Tank "ST"
  - Soil Vapor "SV"
  - Ambient Air "AA"

- Sample Matrix:
  - Soil "S"
  - Sediment "SD"
  - Sludge "SL"
  - Groundwater "GW"
  - Drainage Water/Storm Water "DW"
  - Surface Water "SW"
  - Wastewater "WW"
  - Air "A"
  - Soil Vapor "SV"
  - Tap Water "TW"
- Sample Number:
  - For circumstances where more than one sample of the same type and/or from the same location will be collected, a consecutive sample number will be assigned. When more than one sample is collected from a borehole in a sampling round at different depths, the depth will be indicated on the sample container and in the field log book.
- Quality Assurance/ Quality Control (QA/QC):
  - Matrix Spike "MS"
  - Matrix Spike Duplicate "MSD"
  - Field Blank "FB"
  - Trip Blank "TB"

Based upon the above sample identification procedures, an example of a sample label may be:



6.2 Sample Handling, Packaging and Shipping

All samples will be placed in the appropriate containers as specified in the 2000 NYSDEC ASP and/or USEPA 5/99 SOW. The holding time criteria identified in the ASP and SOW will be followed as specified in Table 3-1.

Prior to packaging any samples for shipment, the sample containers will be checked for proper identification and compared to the field log book for accuracy. The samples will then be

wrapped with a cushioning material and placed in a cooler (or laboratory shuttle) with a sufficient amount of bagged ice or "blue ice" packs in order to keep the samples at 4°C until arrival at the laboratory.

All necessary documentation required to accompany the sample during shipment will be placed in a sealed plastic bag and taped to the underside of the cooler lid. The cooler will then be sealed with fiber (duct) or clear packing tape, and custody seals will be placed in such a manner that any opening of the cooler prior to arrival at the laboratory can be detected.

All samples will be shipped to ensure laboratory receipt within 48 hours of sample collection in accordance with NYSDEC and USEPA requirements. The laboratory will be notified prior to the shipment of the samples.

6.3 Soil Vapor

1. Be certain that the sample location is noted on Location Sketch (see Section 9.1).
2. Drive the decontaminated stainless steel probe with removable inner rod into the ground to the desired depth.
3. Remove inner rod and immediately replace with a stainless steel cap equipped with a sampling port.
4. Connect new silicon tubing to the probe and the personal sampling pump. Turn on pump. Allow the pump to run until the soil vapor within the probe has reached equilibrium.*
5. Collect a 100 to 500 µl vapor sample using a gas tight syringe and inserting it into the silicon tubing. Transport sample to the portable gas chromatograph (GC) analyst.
6. Shut off pump and disconnect tubing.
7. Extract probe from the ground and decontaminate according to the procedures in Section 7.0.

*In order to establish how long it takes for the soil vapor to reach equilibrium in the probe, two approaches can be utilized:

a. Once the pump is turned on, collect a sample every one to two minutes and analyze on the portable GC. Continue to collect samples until two consecutive

samples yield comparable results. Do this at two or three locations in order to establish a pumping time.

b. Instead of using a personal sampling pump, attach the silicon tubing to the probe and a PID or FID. Once a steady reading is obtained, the system is considered to be in equilibrium. (Not recommended if low levels of volatile organic vapors are present [i.e., <1 ppm]).

6.4 Soil (Surface)

1. Be certain that the sample location is noted on Location Sketch (see Section 9.1).

2. If a dedicated sampling device is not used, be certain that the sampling equipment has been decontaminated utilizing the procedures outlined in Section 7.0.

3. Remove laboratory precleaned sample container from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form (see Section 8.0).

4. At the sample location, clear surface debris (e.g., vegetation, rocks, twigs, etc.). Collect an adequate amount of soil from a depth of 0 to 2 inches below ground surface or below vegetation, using a decontaminated or disposable scoop and/or sterile wooden tongue depressor. Transfer the sample directly into the sample container.

5. Return the sample container to the cooler.

6. If reusable, decontaminate the sampling equipment according to the procedures described in Section 7.0.

7. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.5 Sediment (Dry Wells, Catch Basins, Wastewater Disposal/Sanitary Systems, Storm Drains)

1. Be certain that the nondisposable sampling equipment (e.g., long handle polyethylene scoop) has been decontaminated utilizing the procedures outlined in Section 7.0.

2. Remove laboratory precleaned sample containers from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form.

3. Insert scoop slowly at 0-6 inches into the sediment and remove sample. Sample sediment only after surface water samples have been taken to avoid introduction of sediment into the water.

4. If depth to sediment is greater than the reach of a long handled scoop, the sample may need to be collected utilizing the soil probe or split spoon sampler (see Sections 6.8 and 6.9, respectively).

5. With a sterile wooden tongue depressor or disposable polyethylene scoop, transfer the sample into the open sample container taking care not to spill sample on the outside of the container or overfill container and replace cover on the sample container.

6. Return sample container to sample cooler.

7. If necessary, decontaminate the sampling equipment according to the procedures outlined in Section 7.0.

8. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.6 Drainage Water/Wastewater/Storm Water (Dry Wells, Catch Basins, Wastewater Disposal/Sanitary Systems, Storm Drains)

1. Be certain sample location is noted on Location Sketch (see Section 9.1).

2. Be certain that all nondisposable sampling equipment (e.g., long handled polyethylene scoop) has been decontaminated utilizing the procedures outlined in Section 7.0.

3. Remove laboratory precleaned sample bottles from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form.

4. Lower the scoop or disposable bailer slowly into the water making sure that the sample is taken just below the surface of the water (or at the water/air interface if there is a sheen present) and raise the sample out of the water. Sample water before sediment to avoid introduction of sediment into the water.

5. Gently pour the sample into the sample container, taking care not to spill the sample on the outside of the container or overfill, and replace cover on the sample container. For volatile organic samples, make sure that there are no air bubbles in the sample vial after it has been capped. This is done by filling the vial such that there is a meniscus on top. Carefully slide the septum, Teflon side down, onto the top of the vial and cap the vial. Check for bubbles by turning the vial upside down and tapping it lightly. If the bubbles appear, reopen the vial, remove septum and add more sample

(or resample). Replace septum, recap and check for bubbles. Continue until vial is bubble-free.

6. Return sample container to sample cooler. If sample is obtained directly with a sample container, dry the exterior of the container before placing into cooler.

7. If reusable, decontaminate the sampling equipment according to the procedures outlined in Section 7.0.

8. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.7 Soil (Test Pit)

Test pit excavation will be conducted using a backhoe or excavator.

1. Be certain that the sample location is noted on Location Sketch.

2. Be certain that the sampling equipment, including the backhoe/excavator bucket, is decontaminated utilizing the procedures outlined in Section 7.0.

3. Remove laboratory precleaned sample containers from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form.

4. Set aside top 2 feet of soil.

5. Lower the bucket into the test pit and remove soil/waste material.

6. Immediately upon retrieval of the soil/waste material, obtain an organic vapor measurement with a PID or FID.

7. Depending upon the organic vapor measurement, odors and visual characteristics, obtain a soil sample from the backhoe bucket with a scoop and/or wooden tongue depressor, place into the open sample containers and replace the container covers.

8. Fill out Test Pit Log Form, including a description of soil/waste with location, depth and material sampled.

9. Return the sample container to the cooler.

10. Backfill test pit using the top 2 feet of soil that was set aside as the top layer.

11. If reusable, decontaminate the sampling equipment according to the procedures described in Section 7.0.

12. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.8 Soil (Probe)

1. Be certain that the sample location is noted on Location Sketch (see Section 9.1).

2. Remove laboratory precleaned sample containers from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form.

3. Drive the probe to the desired sampling depth.

4. Retrieve the soil probe and immediately after opening it, obtain an organic vapor measurement with a FID or PID.

5. Remove a sample aliquot from the soil probe using a disposable scoop or sterile wooden tongue depressor, place into the open sample container and replace the container cover.

6. Return the sample container to the cooler.

7. If reusable, decontaminate the sampling equipment according to the procedures described in Section 7.0.

8. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.9 Soil (Borehole, Split Spoon)

1. Be certain that the sample location is noted on Location Sketch (see Section 9.1).

2. Be certain that the sampling equipment (split spoon) has been decontaminated utilizing the procedures outlined in Section 7.0.

3. Remove laboratory precleaned sample containers from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form (see Section 8.0).

4. Drill into the soil to the desired depth and drive the split spoon sampler.

5. Retrieve the split spoon and immediately after opening the split spoon, obtain an organic vapor measurement with a PID or FID and fill out Boring Log Form (see Section 8.0).

6. Remove a sample aliquot from the split spoon using a disposable scoop or sterile wooden tongue depressor, place into the open sample container and replace the container cover.

7. Return the sample container to the cooler.

8. If reusable, decontaminate the sampling equipment according to the procedures described in Section 7.0.

9. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.10 Groundwater (Probe)

1. Be certain sample location is noted on Location Sketch (see Section 9.1).

2. Remove the laboratory precleaned sample containers from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form.

3. Obtain a sample by using a dedicated polyethylene tubing equipped with a bottom check valve.

4. Gently pour the sample into the sample container taking care not to spill on the outside of the container or overfill container and replace cover on the sample container. Samples for volatile organic analyses will have no air space in the sample vial prior to sealing. This is done by filling the vial such that there is a meniscus on top. Carefully slide the septum, Teflon side down, onto the top of the vial and cap the vial. Check for bubbles by turning the vial upside down and tapping it lightly. If bubbles appear, reopen the vial, remove the septum and add more sample (or resample). Replace the septum, recap and check for bubbles. Continue until vial is bubble-free.

5. After sample collection, obtain field measurements including pH, conductivity, temperature and turbidity.

6. If a sample is to be collected for metals analysis, the turbidity must be less than 50 NTUs. If the turbidity cannot be reduced to less than 50 NTUs, the sample will be filtered in the field or by the laboratory. Both filtered (soluble metals) and unfiltered (total metals) samples will be analyzed.

7. Return sample containers to sample cooler.

8. Place all disposable personal protective equipment and disposal sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.11 Groundwater (Hydropunch)

1. Be certain sample location is noted on Location Sketch (see Section 9.1).

2. Using hydropunch equipment drive/punch screen to desired depth.

3. Remove inner sleeve and lower down decontaminated hydropunch bailer or remove filled Hydropunch sampler from borehole.

4. Remove the laboratory precleaned sample container from the sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody form.

5. Obtain a volatile organic sample by using a hydropunch bailer or from Hydropunch sampler. Gently pour the sample into the sample container taking care not to spill on the outside of the container or overfill container and replace cover on the sample container. Samples for volatile organic analyses will have no air space in the sample vial prior to sealing. This is done by filling the vial such that there is a meniscus on top. Carefully slide the septum, Teflon side down, onto the top of the vial and cap the vial. Check for bubbles by turning the vial upside down and tapping it lightly. If bubbles appear, reopen the vial, remove the septum and add more sample (or resample). Replace the septum, recap and check for bubbles. Continue until vial is bubble-free.

6. Obtain a sample and analyze for field parameters (pH, conductivity, temperature and turbidity).

7. Turbidity must be less than 50 NTUs prior to collection of a sample for metals analysis. If the turbidity of the sample is greater than 50 NTUs, the sample will be filtered in the field or by the laboratory. Both filtered (soluble metals) and unfiltered (total metals) samples will be analyzed.

8. Collect remaining samples. Gently pour the sample into the sample container, taking care not to spill water on the outside of the container or overfill the container. Replace cover on the sample container.

9. Return sample container to sample cooler.

10. Punch down to next depth and repeat items 3 through 9.

11. Decontaminate hydropunch equipment as described in Section 7.0.

12. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.12 Groundwater (Monitoring Well)

1. Measure the depth of water using a decontaminated water level indicator and compute the volume of standing water in the well.

2. Remove three to five times the volume of standing water from the well until field measurements (pH, conductivity, temperature and turbidity) stabilize, or until the well is dry, whichever occurs first. Turbidity should be less than 50 NTUs prior to collection of a sample for metals analysis.

3. Remove the laboratory precleaned sample containers from sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody Form.

4. Obtain a sample by using a disposable polyethylene bailer.

5. If the turbidity of the sample is greater than 50 NTUs, the metals; (iron and manganese) portion of the sample will be filtered in the field or by the laboratory. Both the filtered (soluble metals) and unfiltered (total metals) samples will be analyzed.

6. Gently pour the sample into the sample container taking care not to spill on the outside of the container or overfill container and replace the cover on the sample container. Samples for volatile organic analyses will have no air space in the sample vial prior to sealing. This is done by filling the vial such that there is a meniscus on top. Carefully slide the septum, Teflon side down, onto the top of the vial and cap the vial. Check for bubbles by turning the vial upside down and tapping it lightly. If bubbles appear, reopen the vial, remove the septum and add more sample (or resample). Replace the septum, recap and check for bubbles. Continue until vial is bubble-free.

7. Return sample container to sample cooler.

8. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.13 Private Water Supply

1. Fill out Water Supply Information Record (see Section 9.0).

2. Remove the laboratory precleaned sample container from the sample cooler, label container with an indelible marker, fill out Sample Information Record and Chain of Custody form.

3. If there is a treatment system, identify a location to sample that is ahead of any in-line water treatment unit, if possible. If samples are to be collected from a faucet, disassemble any screens and/or purification system that may be on the faucet, if possible. Note these conditions on the Information Record Form.

4. Allow the cold water to run for approximately five minutes to adequately flush the line before sampling.

5. Collect the cold water directly in the sample container, taking care not to spill on the outside of the container or overfill container, and replace cover on the sample container. Samples for volatile organic analyses will have no air space in the sample vial prior to sealing. This is done by filling the vial such that there is a meniscus on top. Carefully slide the septum, Teflon side down, onto the top of the vial and cap the vial. Check for bubbles by turning the vial upside down and tapping it lightly. If bubbles appear, reopen the vial, remove the septum and add more sample (or resample). Replace the septum, recap and check for bubbles. Continue until vial is bubble-free.

6. Return sample to sample cooler.

7. Reattach water line that may have been disconnected ahead of treatment devise and reassemble screens and/or treatment systems that may have been removed.

6.14 Ambient Air (Sorbent Tube Method TO1 or TO2)

1. Be certain sample location is noted on Location Sketch (see Section 9.1).

2. Set the flow rate* to the desired setting on the air pump.

3. Label sorbent tube and fill out Sample Information Record and Chain of Custody Form.

4. Connect the sorbent tube to pump using polyethylene tubing and set sorbent tube in breathing zone. (This can be accomplished by attaching the pump to a stake).

5. Turn on pump and monitor the pump flow rate at half hour intervals during the duration of sampling.

6. Turn off pump and disconnect the sorbent tube and check the pump flow rate.

7. Place sorbent tubes in containers and place in cooler.

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* Flow rate is determined using a calculation contained in Method TO1 or TO2 based on the constituents of concern at the site.

8. Place all disposable personal protective equipment and disposable sampling equipment into a 55-gallon drum and store in a secure area (fenced, if possible).

6.15 Methane Gas Survey

1. Be certain that the sample location is noted on Location Sketch.
2. Drive the decontaminated stainless steel probe with removable inner rod into the ground to the desired depth.
3. Remove inner rod and immediately replace with a stainless steel cap equipped with a sampling port.
4. Connect new silicon tubing to the probe and the methane gas meter. Turn on meter.
5. Record initial, highest and steady-state methane readings.
6. Shut off meter and disconnect tubing.
7. Extract probe from the ground and decontaminate according to the procedures described in Section 7.0.

6.16 Radiological Survey

1. Lay out transect lines/grid in area to be surveyed using site-specific spacing. Record location on Location Sketch.
2. Turn on calibrated radiation meter (Geiger counter) and evaluate meter operation using test source.
3. Record radiation reading at background location.
4. Slowly walk along transect/grid lines with radiation meter in front, moving meter probe from side to side during traverses. Note radiation readings along traverses, including both areas higher and lower than the background reading. Readings significantly below background levels may indicate that the background location does not represent background conditions.
5. Mark any areas of elevated radiation readings in field notebook or on Location Sketch, utilizing transect/grid point designations or other reference points, and/or mark on ground utilizing marker flags, marker stakes or paint. DO NOT PROCEED PAST ANY LOCATION WITH A RADIATION READING EXCEEDING TWO TIMES BACKGROUND LEVELS UNLESS A QUALIFIED HEALTH PHYSICIST

ADVISES OTHERWISE. If possible, delineate the areas of elevated radiation readings by approaching these areas from multiple directions.

6. If warranted, consult with a qualified health physicist regarding confirmation of radiation results, source determination and sample collection.

7.0 DECONTAMINATION PROCEDURES

Whenever possible, all field sampling equipment should be sterile/disposable and dedicated to a particular sampling point. In instances where this is not possible, a field cleaning/ decontamination procedure will be used in order to mitigate cross contamination between sample locations. A decontamination station/pad will be established for all field activities. This will be an area located away from the source of contamination so as not to adversely impact the decontamination procedure, but close enough to the sampling locations to keep equipment transport handling to a minimum after decontamination.

7.1 Field Decontamination Procedures

All nondisposable equipment will be decontaminated at appropriate intervals (e.g., prior to initial use, prior to moving to a new sampling location and prior to leaving the site). Different decontamination procedures are used for various types of equipment that are used to collect samples. When using field decontamination, sampling should commence in the area of the site with the lowest contamination, if known or probable, and proceed through to the areas of highest contamination.

7.2 Decontamination Procedure for Drilling/Probing Equipment

All equipment such as drill rigs and other mobile equipment will receive an initial cleaning prior to use at the site. The frequency of subsequent cleanings while on-site will depend on how the equipment is actually used in relation to collecting environmental samples. All wash/rinse solutions will be collected and recharged on-site after testing, if possible. If an appropriate location for on-site recharge is not available, the next preferable option is to discharge to a municipal sewer system. Until an appropriate discharge alternative is determined, all wash/rinse solutions will be collected and contained on-site in 55-gallon drums.

After the initial decontamination, cleaning may be reduced to those areas that are in close proximity to materials being sampled. Drill rig/probe items such as augers, drill/probe rods and drill bits will be cleaned in between sample locations.

Drilling/probing equipment will be decontaminated in the following manner:

- Wash thoroughly with nonresidual detergent (alconox) and tap water using a brush to remove particulate matter or surface film. This is necessary in order to remove any solids buildup on the back of the rig, auger flights, drill rods, drilling head, etc. Any loose paint chips, paint flakes and rust must also be removed.
- Steam clean (212°F).
- Once decontaminated, remove all items from the decontamination area.

Also, following the general cleaning procedures described above, all downhole/drilling items, such as split spoon samplers, Shelby tubes, rock corers, or any other item of equipment which will come in direct contact with a sample during drilling, will be decontaminated by steam cleaning.

7.3 Decontamination Procedure for Sampling Equipment

Teflon, PVC, polyethylene and stainless steel sampling equipment decontamination procedures will be the following:

- Wash thoroughly with nonresidual detergent (alconox) and clean potable tap water using a brush to remove particulate matter or surface film.
- Rinse thoroughly with tap water.
- Rinse thoroughly with acid (HNO_3) (only if metals samples are to be collected).
- Rinse thoroughly with distilled water.
- Rinse in a well ventilated area with methanol (pesticide grade) and air dry.
- Rinse thoroughly with distilled water and air dry.

- Wrap completely in clean aluminum foil with dull side against the equipment. For small sampling items, such as scoops, decontamination will take place over a drum specifically used for this purpose.

The first step, a soap and water wash, will be performed to remove all visible particulate matter and residual oils and grease. This step will be followed by a tap water rinse and a distilled/deionized water rinse to remove the detergent. Next, a high purity solvent rinse will be used for trace organics removal. Methanol has been chosen because it is not an analyte of concern on the Target Compound List. The solvent will be allowed to evaporate and then a final distilled/deionized water rinse will be performed. This rinse removes any residual traces of the solvent. The aluminum wrap will protect the equipment and keep it clean until it is used at another sampling location.

7.4 Decontamination Procedure for Well Casing and Development Equipment

Field cleaning of well casings will consist of a manual scrubbing to remove foreign material and steam cleaning, inside and out, until all traces of oil and grease are removed. This material will then be stored in such a manner so as to preserve it in this condition. Special attention to threaded joints will be necessary to remove cutting oil or weld burn residues.

Materials and equipment that will be used for the purposes of well development will also be decontaminated by steam cleaning. An additional step will involve flushing the interior of any hose, pump, etc. with a nonphosphate detergent solution and potable water rinse prior to the development of the next well. This liquid waste will be disposed of on-site, if possible after testing.

8.0 LABORATORY SAMPLE CUSTODY PROCEDURES

A NYSDOH ELAP and CLP certified laboratory meeting the requirements for sample custody procedures, including cleaning and handling sample containers and analytical equipment, will be used to analyze samples collected during the remedial investigation. The selected laboratory's Standard Operating Procedures will be made available upon request.

9.0 SAMPLE DOCUMENTATION

Proper management and documentation of field and sampling activities is essential to ensure that all necessary work is conducted in accordance with the sampling plan and QA/QC Plan in an efficient and high quality manner. Field management procedures will include following proper chain of custody procedures to track a sample from collection through analysis, noting when and how samples are split (if required); preparing a Location Sketch; completing Sample Information Records, Chain of Custody Forms, and Boring, Well and Test Pit Construction Logs; maintaining a daily Field Log Book; preparing Daily Field Activity Reports; completing Field Change Forms; and filling out a Daily Air Monitoring Form. Copies of each of these forms are provided in Appendix B. Proper completion of these forms and the field log book are necessary to support the consequent actions that may result from the sample analysis. This documentation will support that the samples were collected and handled properly.

9.1 Location Sketch

For each sampling point, a Location Sketch will be completed using permanent references and distances to the sampling point noted, if possible.

9.2 Sample Information Record

At each sampling location, a Sample Information Record Form is filled out including, but not limited to, the following information:

- Site name
- Sample crew
- Sample location
- Field sample identification number
- Date
- Time of sample collection

- Weather conditions
- Temperature
- Sample matrix
- Method of sample collection and any factor that may affect its quality adversely
- Well information (groundwater only)
- Field test results
- Analysis to be performed
- Remarks

9.3 Chain of Custody

The Chain of Custody Form will be completed and is initiated at the laboratory with container preparation and shipment to the site. The form remains with the sample at all times and bears the name of the person assuming responsibility for the samples. This person is tasked with ensuring secure and appropriate handling of the containers and samples. When the form is complete, it will indicate that there was no lapse in sample accountability.

A sample is considered to be in an individual's custody if any of the following conditions are met:

- It is in the individual's physical possession, or
- It is in the individual's view after being in his or her physical possession, or
- It is secured by the individual so that no one can tamper with it, or
- The individual puts it in a designated and identified secure area.

In general, Chain of Custody Forms are provided by the laboratory selected to perform the analytical services. At a minimum, the following information will be provided on these forms:

- Project name and address
- Project number
- Sample identification number
- Date
- Time
- Sample location
- Sample type
- Analysis requested
- Number of containers and volume taken
- Remarks
- Type of waste
- Sampler(s) name(s) and signature(s)
- Spaces for relinquished by/received by signature and date/time.

For this particular study, forms provided by the laboratory will be utilized.

The Chain of Custody Form will be filled out and signed by the person performing the sampling. The original of the form will travel with the sample and will be signed and dated each time the sample is relinquished to another party, until it reaches the laboratory or analysis is completed. The field sampler will keep one copy and a copy will be retained for the project file. The sample bottle will also be labeled with an indelible marker with a minimum of the following information:

- Sample number
- Analysis to be performed
- Date of collection

A copy of the completed form will be returned by the laboratory with the analytical results.

9.4 Split Samples

Whenever samples are being split with another party, a Receipt for Samples Form will be completed and signed. A copy of the Chain of Custody Form will accompany this form.

9.5 Field Log Book

Field log books will be bound and have consecutively numbered, water resistant pages. All pertinent information regarding the site and sampling procedures will be documented. Notations will be made in log book fashion, noting the time and date of all entries. Information recorded in this notebook will include, but not be limited to, the following:

The first page of the log will contain the following information:

- Project name and address
- Name, address and phone number of field contact
- Waste generator and address, if different from above
- Type of process (if known), generating waste
- Type of waste
- Suspected waste composition, including concentrations

Daily entries will be made for the following information:

- Purpose of sampling
- Location of sampling point
- Number(s) and volume(s) of sample(s) taken
- Description of sampling point and sampling methodology

- Date and time of collection, arrival and departure
- Collector's sample identification number(s)
- Sample distribution and method of storage and transportation
- References, such as sketches of the sampling site or photographs of sample collection
- Field observations, including results of field analyses (e.g., pH, temperature, specific conductance), water levels, drilling logs, and organic vapor and dust readings
- Signature of personnel responsible for completing log entries.

9.6 Daily Field Activity Report

At the end of each day of field work, the Field Operations Manager, or designee, will complete this form noting personnel on-site and summarizing the work performed that day, equipment, materials and supplies used, results of field analyses, problems and resolutions. This form will be signed and subject to review.

9.7 Field Changes and Corrective Actions

Whenever there is a required or recommended investigation/sampling change or correction, a Field Change Form will be completed by the Field Operations Manager and approved by the Project Manager.

9.8 Trip Report

A trip report will be prepared to provide a detailed accounting of what occurred during each sampling mobilization. The trip report will be prepared within two weeks of the last day of each sampling mobilization. Information will be provided on time of major events, dates, and personnel on-site (including affiliations). The trip report will be organized into three or four major sections: Background, Observations and Activities, Conclusions and Recommendations (optional), and Future Activities.

10.0 CALIBRATION PROCEDURES AND PREVENTIVE MAINTENANCE

The following information regarding equipment will be maintained at the project site:

1. Equipment calibration and operating procedures which will include provisions for documentation of frequency, conditions, standards and records reflecting the calibration procedures, methods of usage and repair history of the measurement system. Calibration of field equipment will be performed daily at the sampling site so that any background contamination can be taken into consideration and the instrument calibrated accordingly.

2. A schedule of preventive maintenance tasks, consistent with the instrument manufacturer's specific operation manuals, that will be carried out to minimize down time of the equipment.

3. Critical spare parts, necessary tools and manuals will be on hand to facilitate equipment maintenance and repair.

Calibration procedures and preventive maintenance, in accordance with the NYSDEC 2000 ASP and/or USEPA 5/99 SOW for laboratory equipment, will be contained in the laboratory's standard operating procedures (SOP) which will be available upon request.

11.0 PERFORMANCE OF FIELD AUDITS

During field activities, the QA/QC officer will accompany sampling personnel into the field, in particular in the initial phase of the field program, to verify that the site sampling program is being properly conducted, and to detect and define problems so that corrective action can be taken early in the field program. All findings will be documented and provided to the Field Operations Manager. A copy of the Field Audit Form is provided in Appendix B.

12.0 CONTROL AND DISPOSAL OF CONTAMINATED MATERIAL

During construction and sampling of the monitoring wells and soil borings, contaminated waste, soil and water may be generated from drill cuttings, drilling fluids, decontamination water, development water and purge water. All soil cuttings generated during the site investigation will be handled in a manner consistent with NYSDEC Technical and Administrative Guidance Memorandum (TAGM) No. 4032, Disposal of Drill Cuttings.

All water generated during the investigation, including decontamination water, drill water and purge water, will be recharged on-site, if possible, following testing. If necessary, the site-specific work plan will provide detailed information on the disposal of water generated during the investigation. If it is not possible to recharge water on-site, the next preferred option is discharge of the water to a municipal sanitary sewer system.

Department of Transportation (DOT) approved 55-gallon drums will be used for the containment of soil cuttings and water (if necessary), and for disposal of personal protective clothing and disposable sampling equipment (i.e., bailers, scoops, tongue depressors, etc.). The drums will be marked, labeled with a description of the contents and from what location they were collected. All drums will be sealed and stored on-site in a secure area.

13.0 DOCUMENTATION, DATA REDUCTION AND REPORTING

A NYSDOH ELAP and CLP certified laboratory meeting the New York State requirements for documentation, data reduction and reporting will be used. All data will be cataloged according to sampling locations and sample identification nomenclature which is described in Section 6.1 of this QA/QC Plan. The laboratory analysis will be reported in the NYSDEC ASP Category B deliverables format.

NYSDEC "Sample Identification and Analytical Requirement Summary" and "Sample Preparation and Analysis Summary" forms (for VOC and inorganic analysis) will be completed and included with each data package. These forms are contained in Appendix C of this QA/QC Plan. The sample tracking forms are required and supplied by the 2000 NYSDEC ASP and USEPA 5/99 SOW.

14.0 DATA VALIDATION

Data validation will be performed in order to define and document analytical data quality in accordance with NYSDEC requirements that investigation data must be of known and acceptable quality. The analytical and validation processes will be conducted in conformance with the NYSDEC 2000 ASP and/or USEPA 5/99 SOW.

Because the NYSDEC Analytical Services Protocol is based on the USEPA CLP, the USEPA Functional Guidelines for Evaluating Organics and Inorganics Analyses for the Contract Laboratory Program (CLP) will assist in formulating standard operating procedures (SOPs) for the data validation process. The data validation process will ensure that all analytical requirements specific the QA/QC Plan are followed. Procedures will address validation of routine analytical services (RAS) results based on the NYSDEC Target Compound List and Target Analyte List for standard sample matrices.

The data validation process will provide an informed assessment of the laboratory's performance based upon contractual requirements and applicable analytical criteria. The report generated as a result of the data validation process will provide a base upon which the usefulness of the data can be evaluated by the end user of the analytical results. The overall level of effort and specific data validation procedure to be used will be equivalent to a "100% validation" of all analytical data in any given data package.

During the review process, it will be determined whether the contractually required laboratory submittals for sample results are supported by sufficient back-up data and QA/QC results to enable the reviewer to conclusively determine the quality of data. Each data package will be checked for completeness and technical adequacy of the data. Upon completion of the review, the reviewers will develop a QA/QC data validation report for each analytical data package.

"Qualified" analytical results for any one field sample will be established and presented based on the results of specific QC samples and procedures associated with its sample analysis

group or batch. Precision and accuracy criteria (i.e., QC acceptance limits) will be used in determining the need for qualifying data. Where test data have been reduced by the laboratory, the method of reduction will be described in the report. Reduction of laboratory measurements and laboratory reporting of analytical parameters will be verified in accordance with the procedures specified in the NYSDEC and USEPA program documents for each analytical method (i.e., recreate laboratory calculations and data reporting in accordance with the method specific procedure).

The standard operating guideline manuals and any special analytical methodology required will specify documentation needs and technical criteria and will be taken into consideration in the validation process. Copies of the complete data package and the validation report, including the laboratory results data report sheets, with any qualifiers deemed appropriate by the data reviewer, and a supplementary field QC sample result summary statement, will be provided with the site investigation report.

The following is a description of the two-phased approach to data validation which will be used in the remedial investigation. The first phase is called checklisting and the second phase is the analytical quality review, with the former being a subset of the latter.

- Checklisting - The data package will be checked for correct submission of the contract required deliverables, correct transcription from the raw data to the required deliverable summary forms and proper calculation of a number of parameters.

- Analytical Quality Review - The data package will be closely examined to recreate the analytical process and verify that proper and acceptable analytical techniques have been performed. Additionally, overall data quality and laboratory performance will be evaluated by applying the appropriate data quality criteria to the data to reflect conformance with the specified, accepted QA/QC standards and contractual requirements.

At the completion of the data validation, a Summary Data Validation/Usability Report will be prepared as part of the site investigation report.

15.0 PERFORMANCE AND SYSTEM AUDITS

A NYSDOH ELAP and CLP certified laboratory which has satisfactorily completed performance audits and performance evaluation samples will be used to perform sample analyses for the remedial investigation.

16.0 CORRECTIVE ACTION

A NYSDOH ELAP and CLP certified laboratory will meet the requirements for corrective action protocols, including sample "clean up" to attempt to eliminate/mitigate matrix interference.

The 2000 NYSDEC ASP and USEPA 5/99 SOW includes both mandatory and optional sample cleanup and extraction methods. Cleanup is required by the 2000 NYSDEC ASP and USEPA 8/94 SOW in order to meet contract required detection limits. There are several optional cleanup and extraction methods noted in the 2000 NYSDEC ASP and USEPA 5/99 SOW. These include: florisil column cleanup, silica gel column cleanup, acid-base partition, steam distillation and sulfuric acid cleanup for PCB analysis.

High levels of matrix interference may be present in waste, soil and sediment samples. This interference may prevent the achievement of ASP and SOW detection limits if no target compounds are found. In order to avoid unnecessary dilutions, the optional cleanup methods noted in the 2000 NYSDEC ASP and USEPA 5/99 SOW will be required to be performed by the laboratory as necessary.

It should be noted that if these optional cleanup and extraction methods are utilized, holding time requirements will not be exceeded due to negligence of the laboratory. Subsequent to selection of the analytical laboratory for this project, a meeting or conference call will be undertaken with the laboratory to discuss these issues and establish procedures to ensure effective and timely communications among all parties.

APPENDIX A

GC STANDARD OPERATING PROCEDURE

STANDARD OPERATING PROCEDURE
FOR
HEADSPACE ANALYSIS OF GROUNDWATER SAMPLES UTILIZING A PORTABLE GAS CHROMATOGRAPH

1. Collect groundwater sample in 40-ml vial equipped with teflon septum.

2. Remove 10 ml of sample from vial using a decontaminated disposable 10-ml syringe.

3. Shake vial vigorously for 60 seconds.

4. Withdraw required volume of headspace for injection into portable gas chromatograph.
   - Always store sample in an inverted position to avoid loss of headspace.

STANDARD OPERATING PROCEDURE
FOR
PORTABLE GAS CHROMATOGRAPH (PHOTOVAC 10S PLUS)

1. Fill gas chromatograph with carrier gas (zero air).
2. Turn instrument on.
3. Run instrument blank (perform an analysis without injecting a sample).
4. Run standards (calibration). Calibration procedures will be developed on a site-specific basis. Calibrations will be based on chemicals of concern. Standard analysis must agree within ±20% of existing calibration. If within 20%, proceed to Step 5, if not, rerun standard as a calibration then proceed to Step 5.
5. Analyze samples in accordance with applicable standard operating procedure.
6. Run a standard check every 8 hours. Proceed as in No. 4.

QC GUIDELINES FOR GC FIELD METHODS

The Standard Operating Procedure (SOP) for the GC field method must be submitted to the Quality Assurance Section (QAS) for review. The SOP must include:

- A detailed step-by-step procedure for the analysis method.
- A 3-point Initial Calibration
- Quality Control (QC) criteria: correlation coefficient $\geq$0.95.
- A midpoint calibration every 10 samples or daily, whichever is more frequent.
- QC criteria: Relative Percent Difference (RPD) $\leq$30 percent.
- A blank run after calibration standards.
- QC criteria: Peak area for target compounds less than half the area of the reported detection limit.
- Duplicate analysis on 10 percent of the samples.
- Laboratory confirmation on 10 percent of the samples

The résumé of the Field Analyst, including relevant experience and education, must also be submitted for review by the QAS.

APPENDIX B

FIELD FORMS

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DRILLING CONTRACTOR

Driller _____

Inspector _____

Rig Type _____

Drilling Method _____

Drive Hammer Weight _____

DRILLING LOG

PROJECT NAME _____

PROJECT # _____

Location/Address _____

BORING NUMBER _____

Sheet _____ of _____

Boring Location _____

GROUNDWATER OBSERVATIONS

Water Level			
Time			
Date			
Casing Depth			

Weather _____

Date/Time Start _____

Date/Time Finish _____

Plot Plan

Sample Depth	Sample Number	SPT	PID/FID Reading	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC	COMMENTS

SPT = STANDARD PENETRATION TEST

Soil Stratigraphy Summary _____

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TEST PIT LOCATION SKETCH MAP

N

TEST PIT LOG

TEST PIT NO.	
PROJECT NO./NAME	LOCATION
EXCAVATOR/EQUIPMENT/OPERATOR	
INSPECTOR/OFFICE	START/FINISH DATE
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT
REMARKS:	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Dvirka and Bartilucci
CONSULTING ENGINEERS

WELL CONSTRUCTION LOG

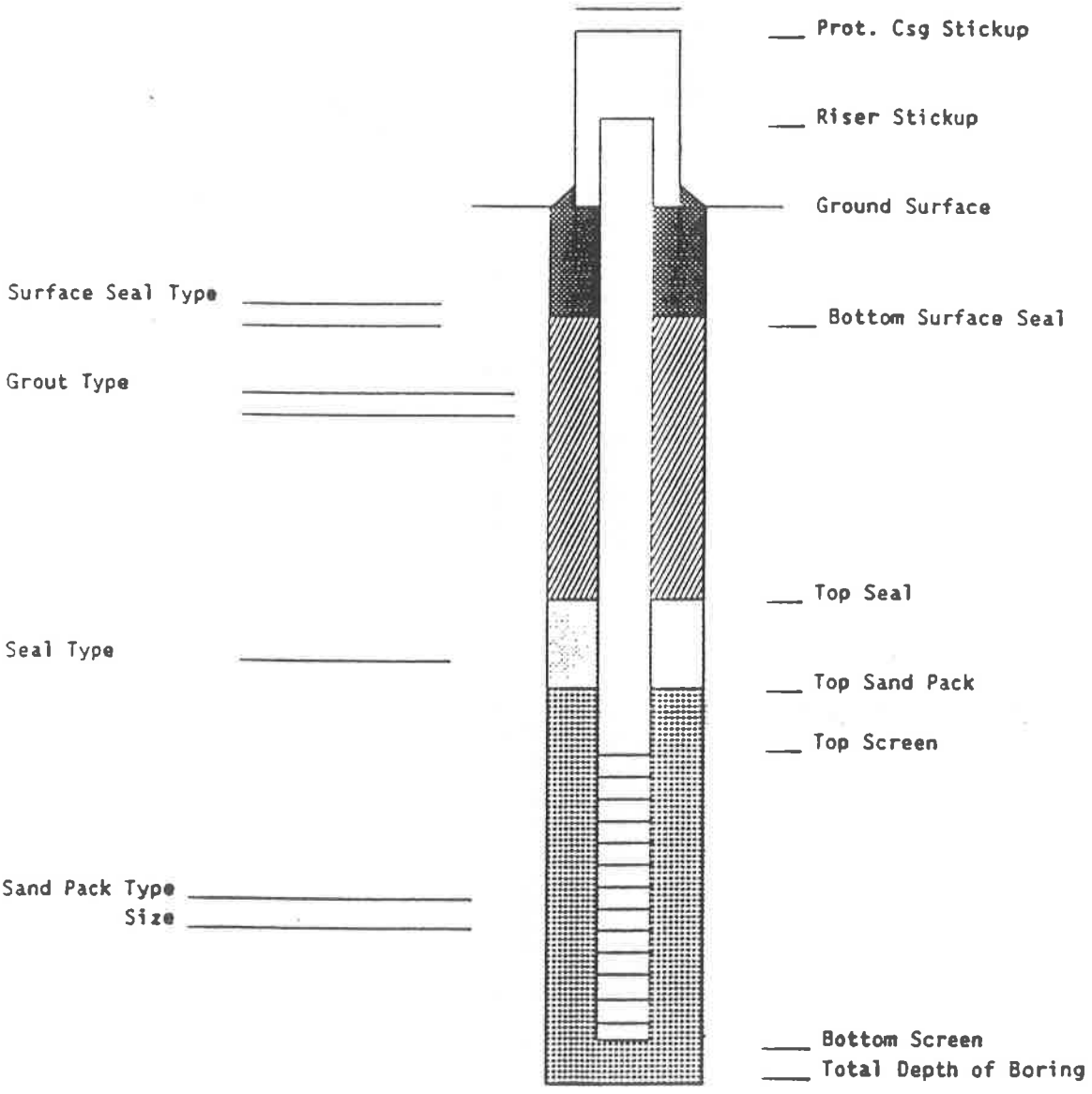
SITE _____ JOB NO. ____ WELL NO. ____

TOTAL DEPTH ____ SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) _____ DATE INSTALLED _____

RISER	DIA ___	MATERIAL _____	LENGTH ____		
SCREEN	DIA ___	MATERIAL _____	LENGTH ____	SLOT SIZE	_____
PROT CSG	DIA ___	MATERIAL _____	LENGTH ____		

SCHEMATIC



Dvirka and Bartlucci
CONSULTING ENGINEERS

WELL CONSTRUCTION LOG

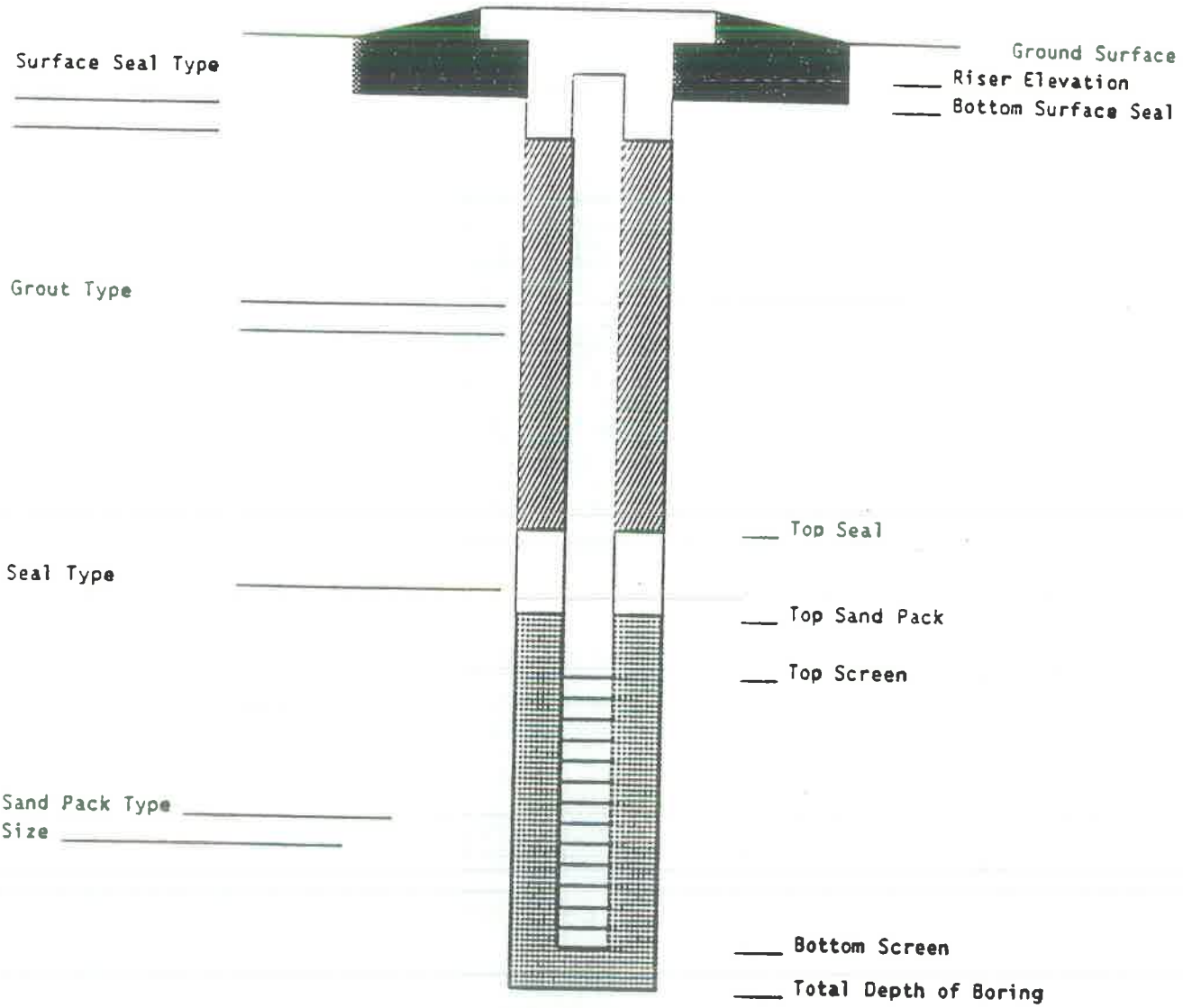
SITE _____ JOB NO. _____ WELL NO. _____

TOTAL DEPTH _____ SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) _____ DATE INSTALLED _____

RISER DIA ___ MATERIAL _____ LENGTH ____
SCREEN DIA ___ MATERIAL _____ LENGTH ____ SLOT SIZE _____

SCHEMATIC



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LOCATION SKETCH

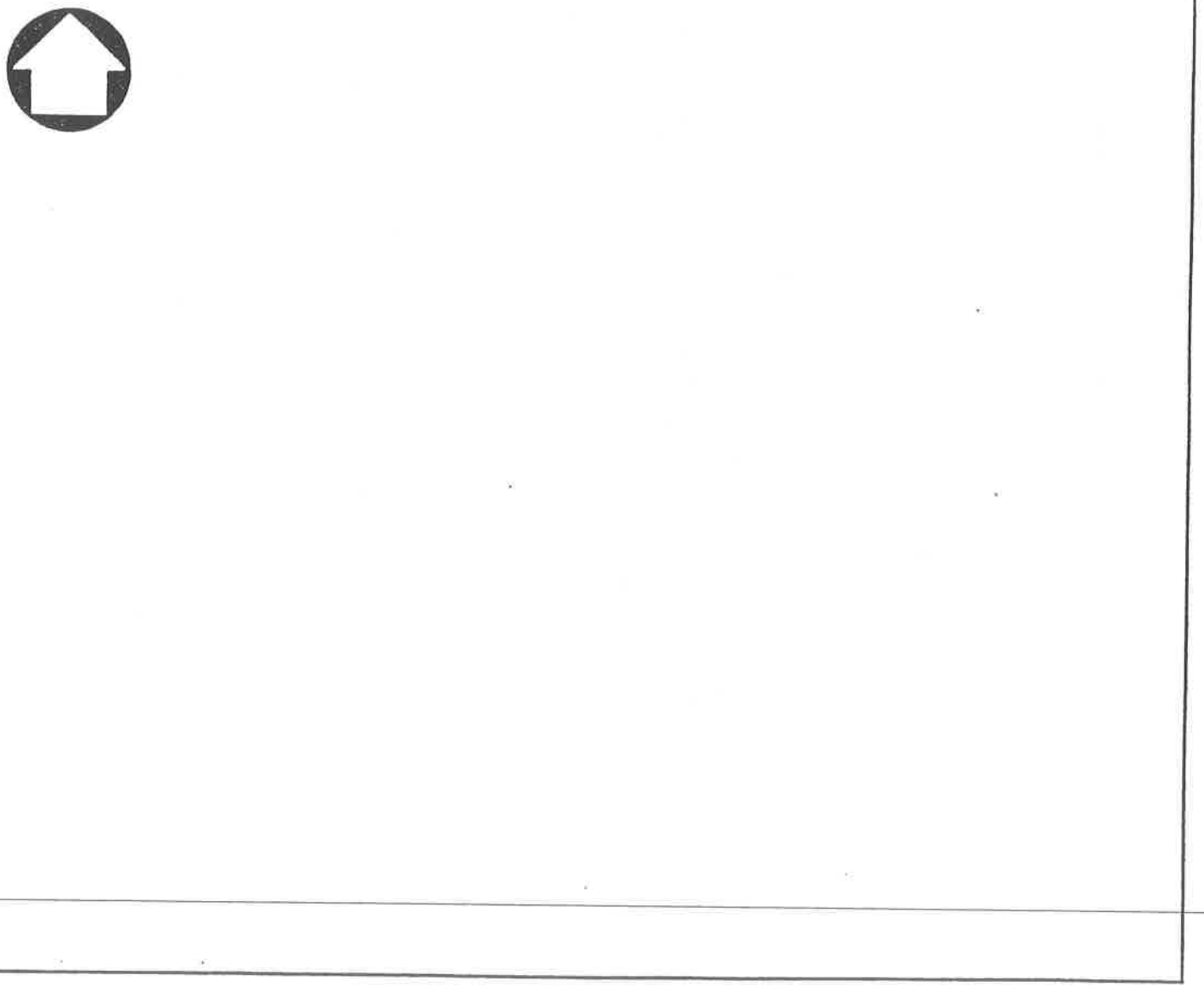
Project _____ Sample Crew _____

Sample(s) Location(s) _____

Sample(s) and/or Well Number(s) _____

_____

Location of sample points, wells, borings, etc., with reference to three permanent reference points. Measure all distances, clearly label roads, wells and permanent features.



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Receipt for Samples

Project Name: _____ Field Log Book Reference Number: _____

Project Address: _____ Sampled By: _____

Project Number: _____ Split With: _____

SAMPLE NUMBERS	DATE	TIME	COMP	GRAB	SPLIT SAMPLES	LOG BOOK PAGE NO.	TAG NUMBERS	SAMPLE LOCATION	NO. OF CONTAINERS	REMARKS

Transferred by (Signature)	Received by (Signature) Telephone
Date Time	Title Date Time

RES

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SAMPLE INFORMATION RECORD

SITE _____ SAMPLE CREW _____

SAMPLE LOCATION/WELLNO. _____

FIELD SAMPLE I.D. NUMBER _____ DATE _____

TIME _____ WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER _____ AIR _____

SOIL _____ OTHER (Describe, e.g., septage,leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

TURBIDITY _____

PID/FID READING _____ VISUAL DESCRIPTION _____

_____

CONSTITUENTS TO BE ANALYZED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: _____

_____

_____

_____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

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DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: _____ Date: _____

Field Log Book Page Number: _____

Project: _____

Address: _____

Weather: (AM) _____ Rainfall: (AM) _____ Inches
(PM): _____ (PM) _____ Inches

Temperature: (AM) _____ °F Wind Speed: (AM) _____ MPH Wind Direction: (AM) _____
(PM) _____ °F (PM) _____ MPH (PM) _____

Site Condition: _____

Personnel On Site:

Name	Affiliation	Arrival Time	Departure Time

Subcontractor Work Commencement: (AM) _____ (PM) _____

Subcontractor Work Completion: (AM) _____ (PM) _____

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DATE: _____

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

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DATE: _____

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: _____

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: _____ Reviewed by: _____

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FIELD CHANGE FORM

Project Name: _____

Project Number: _____ Field Change Number: _____

Location: _____ Date: _____

Field Activity Description: _____

Reason for Change: _____

Recommended Disposition: _____

_____ _____

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition: _____

_____ _____

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required: _____

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DAILY EQUIPMENT CALIBRATION LOG

Project Name: ______________________________

Project Number: ______________________ Calibrated By: ______________________

Date	Instrument Name and Model Number	Calibration Method	Time	Readings and Observations

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WATER SUPPLY SAMPLE INFORMATION RECORD

Name: _____

Address: _____

Telephone: _____

Date and Time Sampled: _____

Sample Location: _____

Sample Number: _____

Well Information: _____

Depth and Type of Well: _____

Date Constructed: _____

Type of Construction and Diameter: _____

Driller: _____

Estimated Usage (gpm): _____

Water Use(s): _____

Type of Treatment Device and Location: _____

Date and Location Last Sampled: _____

Homeowner's Perception of Water Quality: _____

Comments: (Use of bottled water, etc.) _____

_____

_____

_____

_____

_____

_____

_____

_____

WSS

Sketch of Lot, Building, and Well and Septic System Location

Sketch of Water Treatment System and Sampling Locations

Photograph of Water Treatment System

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FIELD AUDIT FORM

Site: _____ Date: _____

Persons On-site: _____ QA/QC Officer Conducting Audit:

_____ _____

_____ Project:

_____ _____

1. Is safety equipment in use (hardhats, respirators, gloves etc.): YES NO

2. Is a decontamination station, equipment and supplies on site and in working order:

Methanol	YES	NO
Alconox	YES	NO
D.I. Water	YES	NO
Scrub Brushes	YES	NO
Steam Cleaner	YES	NO

Comments: _____

_____

_____

3. Is the decontamination pad set up so water is contained: YES NO

Comments: _____

_____

_____

4. Is the site/investigation areas secured (fence, markers, etc.) or otherwise in accordance with project requirements: YES NO

Comments: _____

_____

_____

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FIELD AUDIT FORM
(continued)

5. Is contaminated material properly stored and in a secure area or otherwise in accordance with project requirements: YES NO
   Are the drums of waste (water, soil, ppe) labeled properly: YES NO

   Comments: _____

   _____

   _____

6. Are field forms filled out properly, legibly and timely:

Field Log Book	YES	NO
Chain of Custody	YES	NO
Equipment Calibration Log	YES	NO
Daily Field Activity Report	YES	NO
Location Sketch	YES	NO
Sample Information Record	YES	NO
Equipment Usage Form	YES	NO
Boring Logs	YES	NO

   Comments: _____

   _____

   _____

7. Is the proper sampling and field measurement equipment, including calibration supplies on site: YES NO

   Comments: _____

   _____

   _____

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FIELD AUDIT FORM
(continued)

8. Are there adequate sample containers, including deionized water for QA/QC:

Field Blanks	YES	NO
Trip Blanks	YES	NO

Comments: _____

_____

_____

9. Is the equipment decontaminated in accordance with project requirements:

Sampling equipment	YES	NO
Construction equipment	YES	NO

Comments: _____

_____

_____

10. Is field measurement equipment calibrated:

Daily	YES	NO
Properly	YES	NO

Comments: _____

_____

_____

11. Are samples collected and labeled properly: YES NO

Comments: _____

_____

_____

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FIELD AUDIT FORM
(continued)

12. Are samples stored at 4°C: YES NO

Comments: _____

_____

_____

13. Are coolers properly sealed and packed for shipment including Chain of Custody taped to underside of lid: YES NO

Comments: _____

_____

_____

14. Is a copy of the Field Investigation Work Plan available on site: YES NO

Comments: _____

_____

_____

15. Is a copy of each equipment manual on-site: YES NO

Comments: _____

_____

_____

16. Is a copy of the QA/QC Plan available on site: YES NO

Comments: _____

_____

_____

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FIELD AUDIT FORM
(continued)

17. Are investigation personnel familiar with the Work Plan and QA/QC Plan: YES NO

Comments: _____

_____

_____

18. Are quality control samples taken:

Trip Blanks	YES	NO
Field Blanks	YES	NO

Comments: _____

_____

_____

19. Are samples shipped in a timely and appropriate manner: YES NO

Comments: _____

_____

_____

20. Has the laboratory been contacted regarding planned shipment of samples: YES NO

Comments: _____

_____

_____

21. Certification - Based upon my audit at the above project, I hereby certify/do not certify compliance with QA/QC requirements for the project:

_____ _____

Dated Signed

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FIELD AUDIT FORM
(continued)

General Comments: _____

_____

_____

_____

APPENDIX C

NYSDEC SAMPLE IDENTIFICATION, PREPARATION AND ANALYSIS SUMMARY FORMS

To be included with all lab data and with each workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor

APPENDIX D

TARGET COMPOUND AND TARGET ANALYTE LISTS

Superfund Target Compound List (TCL) and Contract Required Quantitation Limits (CRQL)

	Volatiles	CAS Number	Quantitation Limits* Water µg/L	Low Soil µg/Kg	Med Soil µg/Kg	On Column (ng)
1.	Dichlorodifluoromethane	75-71-8	10	10	1200	(50)
2.	Chloromethane	74-87-3	10	10	1200	(50)
3.	Bromomethane	74-83-9	10	10	1200	(50)
4.	Vinyl chloride	75-01-4	10	10	1200	(50)
5.	Chloroethane	75-00-3	10	10	1200	(50)
6.	Trichlorofluoromethane	75-69-4	10	10	1200	(50)
7.	1,1-Dichloroethene	75-35-4	10	10	1200	(50)
8.	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	10	10	1200	(50)
9.	Acetone	67-64-1	10	10	1200	(50)
10.	Carbon Disulfide	75-15-0	10	10	1200	(50)
11.	Methyl Acetate	79-20-9	10	10	1200	(50)
12.	Methylene chloride	75-09-2	10	10	1200	(50)
13.	trans-1,2-Dichloroethene	156-60-5	10	10	1200	(50)
14.	Methyl tert-Butyl Ether	1634-04-4	10	10	1200	(50)
15.	1,1-Dichloroethane	75-35-3	10	10	1200	(50)
16.	cis-1,2-Dichloroethene	156-59-2	10	10	1200	(50)
17.	2-Butanone	78-93-3	10	10	1200	(50)
18.	Chloroform	67-66-3	10	10	1200	(50)
19.	1,1,1-Trichloroethane	71-55-6	10	10	1200	(50)
20.	Cyclohexane	110-82-7	10	10	1200	(50)
21.	Carbon tetrachloride	56-23-5	10	10	1200	(50)
22.	Benzene	71-43-2	10	10	1200	(50)
23.	1,2-Dichloroethane	107-06-2	10	10	1200	(50)
24.	Trichloroethene	79-01-6	10	10	1200	(50)
25.	Methylcyclohexane	108-87-2	10	10	1200	(50)
26.	1,2-Dichloropropane	78-87-5	10	10	1200	(50)
27.	Bromodichloromethane	75-27-4	10	10	1200	(50)
28.	cis-1,3-Dichloropropene	10061-01-5	10	10	1200	(50)
29.	4-Methyl-2-pentanone	108-10-1	10	10	1200	(50)
30.	Toluene	108-88-3	10	10	1200	(50)
31.	trans-1,3-Dichloropropene	10061-02-6	10	10	1200	(50)
32.	1,1,2-Trichloroethane	79-00-5	10	10	1200	(50)
33.	Tetrachloroethene	127-18-4	10	10	1200	(50)
34.	2-Hexanone	591-78-6	10	10	1200	(50)
35.	Dibromochloromethane	124-48-1	10	10	1200	(50)

Superfund Target Compound List (TCL) and
Contract Required Quantitation Limits (CRQL)

	Volatiles (cont.)	CAS Number	Quantitation Limits* Water µg/L	Low Soil µg/Kg	Med Soil µg/Kg	On Column (ng)
36.	1,2-Dibromoethane	106-93-4	10	10	1200	(50)
37.	Chlorobenzene	108-90-7	10	10	1200	(50)
38.	Ethyl Benzene	100-41-4	10	10	1200	(50)
39.	Total Xylenes	1330-20-7	10	10	1200	(50)
40.	Styrene	100-42-5	10	10	1200	(50)
41.	Bromoform	75-25-2	10	10	1200	(50)
42.	Isopropylbenzene	98-82-8	10	10	1200	(50)
43.	1,1,2,2-Tetrachloroethane	79-34-5	10	10	1200	(50)
44.	1,3-Dichlorobenzene	541-73-1	10	10	1200	(50)
45.	1,4-Dichlorobenzene	106-46-7	10	10	1200	(50)
46.	1,2-Dichlorobenzene	95-50-1	10	10	1200	(50)
47.	1,2-Dibromo-3-chloropropane	96-12-8	10	10	1200	(50)
48.	1,2,4-Trichlorobenzene	120-82-1	10	10	1200	(50)

* Quantitation Limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the laboratory for soil/sediment, calculated on dry weight basis, as required by the protocol, will be higher.

Superfund Target Compound List (TCL) and
Contract Required Quantitation Limits (CRQL)*

	Semivolatiles	CAS Number	Quantitation Limits* Water µg/L	Low Soil µg/Kg	Med Soil µg/Kg	On Column (ng)
34.	Phenol	108-95-2	10	330	10,000	(20)
35.	bis(2-Chloroethyl) ether	111-44-4	10	330	10,000	(20)
36.	2-Chlorophenol	95-57-8	10	330	10,000	(20)
37.	1,3-Dichlorobenzene	541-73-1	10	330	10,000	(20)
38.	1,4-Dichlorobenzene	106-46-7	10	330	10,000	(20)
39.	1,2-Dichlorobenzene	95-50-1	10	330	10,000	(20)
40.	2-Methylphenol	95-48-7	10	330	10,000	(20)
41.	2,2'-oxybis(1-Chloro-propane) #	108-60-1	10	330	10,000	(20)
42.	4-Methylphenol	106-44-5	10	330	10,000	(20)
43.	N-Nitroso-di-n-propylamine	621-64-7	10	330	10,000	(20)
44.	Hexachloroethane	67-72-1	10	330	10,000	(20)
45.	Nitrobenzene	98-95-3	10	330	10,000	(20)
46.	Isophorone	78-59-1	10	330	10,000	(20)
47.	2-Nitrophenol	88-75-5	10	330	10,000	(20)
48.	2,4-Dimethylphenol	105-67-9	10	330	10,000	(20)
49.	bis(2-Chloroethoxy) methane	111-91-1	10	330	10,000	(20)
50.	2,4-Dichlorophenol	120-83-2	10	330	10,000	(20)
51.	1,2,4-Trichlorobenzene	120-82-1	10	330	10,000	(20)
52.	Naphthalene	91-20-3	10	330	10,000	(20)
53.	4-Chloroaniline	106-47-8	10	330	10,000	(20)
54.	Hexachlorobutadiene	87-68-3	10	330	10,000	(20)
55.	4-Chloro-3-methylphenol	59-50-7	10	330	10,000	(20)
56.	2-Methylnaphthalene	91-57-6	10	330	10,000	(20)
57.	Hexachlorocyclopentadiene	77-47-4	10	330	10,000	(20)
58.	2,4,6-Trichlorophenol	88-06-2	10	330	10,000	(20)
59.	2,4,5-Trichlorophenol	95-95-4	25	800	25,000	(50)
60.	2-Chloronaphthalene	91-58-7	10	330	10,000	(20)
61.	2-Nitroaniline	88-74-4	25	800	25,000	(50)
62.	Dimethyl phthalate	131-11-3	10	330	10,000	(20)
63.	Acenaphthylene	208-96-8	10	330	10,000	(20)
64.	2,6-Dinitrotoluene	606-20-2	10	330	10,000	(20)
65.	3-Nitroaniline	99-09-2	25	800	25,000	(50)
66.	Acenaphthene	83-32-9	10	330	10,000	(20)

Previously known by the name bis(2-Chloroisopropyl) ether

Superfund Target Compound List (TCL) and
Contract Required Quantitation Limits (CRQL)

	Semivolatiles	CAS Number	Quantitation Limits* Water µg/L	Low Soil µg/Kg	Med Soil µg/Kg	On Column (ng)
67.	2,4-Dinitrophenol	51-28-5	25	800	25,000	(50)
68.	4-Nitrophenol	100-02-7	25	800	25,000	(50)
69.	Dibenzofuran	132-64-9	10	330	10,000	(20)
70.	2,4-Dinitrotoluene	121-14-2	10	330	10,000	(20)
71.	Diethylphthalate	84-66-2	10	330	10,000	(20)
72.	4-Chlorophenyl phenyl ether	7005-72-3	10	330	10,000	(20)
73.	Fluorene	86-73-7	10	330	10,000	(20)
74.	4-Nitroaniline	100-01-6	25	800	25,000	(50)
75.	4,6-Dinitro-2-methylphenol	534-52-1	25	800	25,000	(50)
76.	N-nitrosodiphenylamine	86-30-6	10	330	10,000	(20)
77.	4-Bromophenyl phenyl ether	101-55-3	10	330	10,000	(20)
78.	Hexachlorobenzene	118-74-1	10	330	10,000	(20)
79.	Pentachlorophenol	87-86-5	25	800	25,000	(50)
80.	Phenanthrene	85-01-8	10	330	10,000	(20)
81.	Anthracene	120-12-7	10	330	10,000	(20)
82	Carbazole	86-74-8	10	330	10,000	(20)
83.	Di-n-butyl phthalate	84-74-2	10	330	10,000	(20)
84.	Fluoranthene	206-44-0	10	330	10,000	(20)
85.	Pyrene	129-00-0	10	330	10,000	(20)
86.	Butyl benzyl phthalate	85-68-7	10	330	10,000	(20)
87.	3,3'-Dichlorobenzidine	91-94-1	10	330	10,000	(20)
88.	Benz[a]anthracene	56-55-3	10	330	10,000	(20)
89.	Chrysene	218-01-9	10	330	10,000	(20)
90.	bis(2-Ethylhexyl)phthalate	117-81-7	10	330	10,000	(20)
91.	Di-n-octyl phthalate	117-84-0	10	330	10,000	(20)
92.	Benzo[b]fluoranthene	205-99-2	10	330	10,000	(20)
93.	Benzo[k]fluoranthene	207-08-9	10	330	10,000	(20)
94.	Benzo[a]pyrene	50-32-8	10	330	10,000	(20)
95.	Indeno(1,2,3-cd]pyrene	193-39-5	10	330	10,000	(20)
96.	Dibenz[a,h]anthracene	53-70-3	10	330	10,000	(20)
97.	Benzo[g,h,i]perylene	191-24-2	10	330	10,000	(20)

* Quantitation limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the Laboratory for soil/sediment, calculated on dry weight basis as required by the Protocol, will be higher.

Superfund Target Compound List (TCL) and
Contract Required Quantitation Limits (CRQL)*

	Pesticides/Aroclors	CAS Number	Quantitation Limits* Water µg/L	Soil µg/Kg	On Column (pg)
98.	alpha-BHC	319-84-6	0.05	1.7	5
99.	beta-BHC	319-85-7	0.05	1.7	5
100.	delta-BHC	319-86-8	0.05	1.7	5
101.	gamma-BHC (Lindane)	58-89-9	0.05	1.7	5
102.	Heptachlor	76-44-8	0.05	1.7	5
103.	Aldrin	309-00-2	0.05	1.7	5
104.	Heptachlor epoxide	1024-57-3	0.05	1.7	5
105.	Endosulfan I	959-98-8	0.05	1.7	5
106.	Dieldrin	60-57-1	0.10	3.3	10
107.	4,4'-DDE	72-55-9	0.10	3.3	10
108.	Endrin	72-20-8	0.10	3.3	10
109.	Endosulfan II	33213-65-9	0.10	3.3	10
110.	4,4'-DDD	72-54-8	0.10	3.3	10
111.	Endosulfan sulfate	1031-07-8	0.10	3.3	10
112.	4,4'-DDT	50-29-3	0.10	3.3	10
113.	Methoxychlor	72-43-5	0.50	17.0	50
114.	Endrin ketone	53494-70-5	0.10	3.3	10
115.	Endrin aldehyde	7421-36-3	0.10	3.3	10
116.	alpha-Chlordane	5103-71-9	0.05	1.7	5
117.	gamma-Chlordane	5103-74-2	0.05	1.7	5
118.	Toxaphene	8001-35-2	5.0	170.0	500
119.	AROCLOR-1016	12674-11-2	1.0	33.0	100
120.	AROCLOR-1221	11104-28-2	2.0	67.0	200
121.	AROCLOR-1232	11141-16-5	1.0	33.0	100
122.	AROCLOR-1242	53469-21-9	1.0	33.0	100
123.	AROCLOR-1248	12672-29-6	1.0	33.0	100
124.	AROCLOR-1254	11097-69-1	1.0	33.0	100
125.	AROCLOR-1260	11096-82-5	1.0	33.0	100

* Quantitation Limits listed for soil/sediment are based on wet weight. The quantitation limits calculated by the Laboratory for soil/sediment, calculate on dry weight basis, as required by the Protocol, will be higher.

Superfund Target Compound List (TCL) and Contract Required Quantitation Limit

	Parameter	Contract Required Quantitation Level (µg/L)
1.	Aluminum	200
2.	Antimony	60
3.	Arsenic	10
4.	Barium	200
5.	Beryllium	5
6.	Cadmium	5
7.	Calcium	5000
8.	Chromium	10
9.	Cobalt	50
10.	Copper	25
11.	Iron	100
12.	Lead	3
13.	Magnesium	5000
14.	Manganese	15
15.	Mercury	0.2
16.	Nickel	40
17.	Potassium	5000
18.	Selenium	5
19.	Silver	10
20.	Sodium	5000
21.	Thallium	10
22.	Vanadium	50
23.	Zinc	20
24.	Cyanide	10

Appendix B

APPENDIX B

HEALTH AND SAFETY PLAN FOR BROWNFIELD SITE INVESTIGATIONS

HEALTH AND SAFETY PLAN
FOR
BROWNFIELD SITE INVESTIGATIONS

PREPARED FOR

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

BY

DVIRKA AND BARTILUCCI
CONSULTING ENGINEERS

WOODBURY, NEW YORK

JULY 2003

HEALTH AND SAFETY PLAN
FOR
BROWNFIELD SITE INVESTIGATIONS

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5 Heat/Cold Stress Guidelines
6 Incident Notification Form
7 Emergency Information
8 Postings
9 Site-Specific Information

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region One
Building 40 - SUNY, Stony Brook, New York 11790-2356
Phone: (631) 444-0240 • **FAX:** (631) 444-0248
Website: www.dec.state.ny.us

Environmental Conservation 30 YEARS
Erin M. Crotty
Commissioner

FAX TRANSMISSION ROUTING FORM

Division of Environmental Remediation

copy to Gary

TO: Vasu.

FAX NUMBER: 518-402-9627

FROM: Walter Parish

DATE: 11/20/02

Total number of pages 3, including cover sheet.

Message / Instructions : Please see attached, letter as requested.

THOMAS P. DiNAPOLI
Member of Assembly
16th District
Nassau County

THE ASSEMBLY
STATE OF NEW YORK
ALBANY

CHAIR
Standing Committee on
Environmental Conservation

CO-CHAIR
Legislative Commission on
Water Resource Needs of
New York and Long Island

COMMITTEES
Ways & Means
Education
Veterans Affairs

November 13, 2002

Honorable Erin Crotty, Commissioner
NYS Dept. of Environmental Conservation
625 Broadway, 14th Floor
Albany, New York 12233-1011

Dear Commissioner Crotty:

I am writing to request that you do all in your power to expedite the assignment of a seasoned and experienced Project Manager to oversee site assessment activities at the former Blue Point Laundry Site in accordance with the requirements set forth by the United States Environmental Protection Agency's (EPA) "Brownfields Targeted Site Investigation Program." Suffolk County's application to the EPA, which was filed through your agency, was approved on May 8, 2002.

Interest in remediating and redeveloping this property, which is owned by Suffolk County as a result of a tax lien, has brought together local, state, and federal government officials and not-for-profit representatives. Your agency has been well represented by Mr. Anthony Cava at the initial meeting and, more recently, by Mr. Walter Parish. And, while the county is anxious to proceed, it cannot without an assignment of a project manager by the DEC.

As evidenced by the enclosed report, ***Blue Point Laundry Site: Blue Point, N.Y.***, prepared by the Suffolk County Department of Health -- utilizing staff from the County's Division of Environmental Quality, Offices of Water Resources and Pollution Control, and Bureau of Groundwater Resources -- has already taken initial steps to; "... characterize and determine the extent of soil, sediment, groundwater and surface water contamination in order to develop a remediation plan..."

While I understand the limits on your staff resources, it would be appreciated if you would expedite the designation of a Project Manager for the former Blue Point Laundry site so that the investigation, remediation, and redevelopment of the site

Room 625, Legislative Office Building, Albany, New York 12248, (518) 455-5192, FAX (518) 455-4921
11 Middle Neck Road, Suite 200, Great Neck, New York

can proceed in a timely and forthright manner utilizing this intergovernmental and not-for-profit partnership.

Please feel free to contact me or my Executive Director, Michael Deering, at 516-482-6966 if you need additional information or have any questions regarding this matter.

Thank you for your consideration and attention.

Sincerely,

Thomas P. DiNapoli
Member of Assembly

Enclosure

Cc: Honorable Carl Marcellino, New York State Senator
Honorable Paul Tonna, Suffolk County Legislature Presiding Officer
Ms. Resi Cooper, LI Regional Representative for Senator Hillary Rodham Clinton
Mr. George Gatta, Suffolk County Deputy County Executive
Mr. Ray Cowen, Long Island Regional Director, NY DEC
Mr. Walter Parish, P.E., Environmental Engineer, Division of Environmental Remediation, Long Island Region NY DEC
Mr. Vito Minei, P.E., Director, Suffolk County Division of Environmental Quality
Mr. Alex Santino, P.E., Suffolk County Office of Pollution Control
Ms. Sarah Lansdale, Program Coordinator, Sustainable Long Island
Mr. James Morgo, President and CEO Long Island Housing Partnership

Enclosure

TPD:mjd

New York State Department of Environmental Conservation
Division of Management & Budget Services, 10th Floor
625 Broadway, Albany, New York 12233-5010
Phone: (518) 402-9237 • **FAX:** (518) 402-9023
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

OCT 24 2002

Mr. Roch Baamonde
Chief, Grants and Contracts Management Branch
United States Environmental Protection Agency
Region II
290 Broadway
New York, New York 10007-1866

Dear Mr. Baamonde:

Re: Amendment to Federal Assistance
Agreement No. V002956-01
Hazardous Waste Site Inventory Grant
Brownfields Site Assessment and
Voluntary Cleanup Program Site Support

We are pleased to accept Amendment No. 3 to the above-referenced agreement. This amendment increases the agreement by $375,000 for Hazardous Waste Site Inventory Program activities related to Brownfields Site Assessments. In addition, the Budget/Project period is extended through September 30, 2003.

Enclosed are two (2) copies of the amendment. We will continue to work closely with the United States Environmental Protection Agency in addressing any problems that develop during the remediation process.

Sincerely,

Richard K. Randles
Director
Division of Management and Budget Services

Enclosures
cc: w/o enclosures:
J. Kenny, USEPA
A. Devine, USEPA
W. McCabe, USEPA

bcc: w/o enc.:
R. Randles
D. Desnoyers
R. Marino

Daybook

bcc: w/enc.:
F. Pacowski (original)
D. Farrar
W. Bayer
P. Gallagher
R. Evans

U.S. ENVIRONMENTAL PROTECTION AGENCY

Assistance Amendment

ASSISTANCE ID NO.			DATE OF AWARD
PRG	DOC ID	AMEND#	
V -	00295601	- 3	SEP 26 2002
TYPE OF ACTION: Augmentation: Increase			MAILING DATE: OCT 03 2002
PAYMENT METHOD: ASAP			ACH#

RECIPIENT TYPE:
State

Send Payment Request to:
Financial Management Branch

RECIPIENT:
NYS Dept of Environmental Conservation
625 Broadway
Albany, NY 12233-5010
EIN: 14-6013200

PAYEE:
NYS Dept of Environmental Conservation
625 Broadway
Albany, NY 12233-5010

PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST
Dale A. Desnoyers 625 Broadway Albany, NY 12233-5010 **E-Mail:** **Phone:** 518-402-9706	Alison Devine 290 Broadway New York, NY 10007-1866 **E-Mail:** Devine.Alison@epa.gov **Phone:** 212-637-4158	Yvette MarCardona Grants & Contracts Management Branch **E-Mail:** marcardona.yvette@epa.gov **Phone:** 212-637-3409

PROJECT TITLE AND DESCRIPTION
Hazardous Waste Site Inventory Program - Brownfields Assessment & VCP Site Support
The Cooperative Agreement with the New York State Department of Environmental Conservation is increased by $375,000 for the Hazardous Waste Site Inventory Program activities related to Brownfields Site Assessments. In addition, the project/budget period expiration dates are extended to 09/30/2003. Increase of Funds (Supplemental)

BUDGET PERIOD	PROJECT PERIOD	TOTAL BUDGET PERIOD COST	TOTAL PROJECT PERIOD COST
04/01/99 - 09/30/2003	04/01/99 - 09/30/2003	$1,625,000.00	$1,625,000.00

NOTE: The Agreement must be completed in duplicate and the Original returned to the appropriate Grants Management Office listed below, within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the Recipient subsequent to the document being signed by the EPA Award Official, which the Award Official determines to materially alter the Agreement, shall void the Agreement.

OFFER AND ACCEPTANCE

The United States, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers Assistance/Amendment to the NYS Dept of Environmental Conservation for 100.00 % of all approved costs incurred up to and not exceeding $1,625,000 for the support of approved budget period effort described in application (including all application modifications) cited in the Project Title and Description above, signed 06/05/2002 & included herein by reference.

as revised on 8/5/02

ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)	AWARD APPROVAL OFFICE
ORGANIZATION / ADDRESS	ORGANIZATION / ADDRESS
Grants and Contracts Management Branch 290 Broadway, 27th Floor New York, NY 10007-1866	U.S. EPA, Region 2 290 Broadway New York, NY 10007-1866

THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY

SIGNATURE OF AWARD OFFICIAL	TYPED NAME AND TITLE	DATE
	Jane M. Kenny, Regional Administrator	9/26

This agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2) the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter 1, Subchapter B and of the provisions of this agreement (and all attachments), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA.

BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION

SIGNATURE	TYPED NAME AND TITLE	DATE
Richard E. Sander	Erin M. Crotty, Commissioner	10/24/02

EPA Funding Information

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	$ 1,250,000	$ 375,000	$ 1,625,000
EPA In-Kind Amount	$ 0	$	$ 0
Unexpended Prior Year Balance	$ 0	$	$ 0
Other Federal Funds	$ 0	$	$ 0
Recipient Contribution	$ 0	$	$ 0
State Contribution	$ 0	$	$ 0
Local Contribution	$ 0	$	$ 0
Other Contribution	$ 0	$	$ 0
Allowable Project Cost	$ 1,250,000	$ 375,000	$ 1,625,000

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.802 - Hazardous Substances Response Trust Fund	CERCLA: Sec. 104	40 CFR PTS 31 & 35 SUBPT O

Fiscal

Site Name	DCN	FY	Approp. Code	Budget Organization	PRC	Object Class	Site/Project	Cost Organization	Obligation / Deobligation
HWSI/BWFLD	HE0519	02	T	02DOD	50108D	4185	02ZZON00	C003	375,000
									375,000

Budget Summary Page

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	$0
2. Fringe Benefits	$0
3. Travel	$0
4. Equipment	$0
5. Supplies	$0
6. Contractual	$1,625,000
7. Construction	$0
8. Other	$0
9. Total Direct Charges	$1,625,000
10. Indirect Costs: % Base	$0
11. Total (Share: Recipient 0.00 % Federal 100.00 %.)	$1,625,000
12. Total Approved Assistance Amount	$1,625,000
13. Program Income	$0

PA/SI - VCP SITE SUPPORT

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	$0
2. Fringe Benefits	$0
3. Travel	$0
4. Equipment	$0
5. Supplies	$0
6. Contractual	$250,000
7. Construction	$0
8. Other	$0
9. Total Direct Charges	$250,000
10. Indirect Costs	$0
11. Total (Share: Recipient 0.00 % Federal 100.00 %.)	$250,000
12. Total Approved Assistance Amount	$250,000
13. Program Income	$0

PA/SI - BROWNFIELDS ASSESSMENT

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	$0
2. Fringe Benefits	$0
3. Travel	$0
4. Equipment	$0
5. Supplies	$0
6. Contractual	$1,375,000
7. Construction	$0
8. Other	$0
9. Total Direct Charges	$1,375,000
10. Indirect Costs	$0
11. Total (Share: Recipient 0.00 % Federal 100.00 %.)	$1,375,000
12. Total Approved Assistance Amount	$1,375,000
13. Program Income	$0

CONSOLIDATED BUDGET SUMMARY BY ACTIVITY

Table B - Program Element Classification (Non-construction)	Total Approved Allowable Budget Period Cost
1. HAZARDOUS WASTE SITE INVENTORY (PA/SI):	$0
2. - VOLUNTARY CLEANUP PROGRAM	$0
3. (VCP) SITE SUPPORT	$250,000
4. - BROWNFIELDS ASSESSMENT	$1,375,000
5.	$
6.	$
7.	$
8.	$
9.	$
10.	$
11. Total (Share: Recip 0.00 % Fed 100.00 %)	$1,625,000
12. Total Approved Assistance Amount	$1,625,000

Administrative Conditions

1. a. GENERAL CONDITION

The recipient covenants and agrees that it will expeditiously initiate and timely complete the project work for which assistance has been awarded under this agreement, in accordance with all applicable provisions of 40 CFR Chapter 1, Subchapter B. The recipient warrants, represents, and agrees that it, and all its contractors, employees and representatives, will comply with all applicable provisions of 40 CFR Chapter 1, Subchapter B, INCLUDING BUT NOT LIMITED TO the provisions of 40 CFR Part 35 Subpart O.

b. TERMS AND CONDITIONS

All Terms and Conditions included or referenced through Amendment No. V002956-01-2 remain in effect and are incorporated by reference herein, with the following exception(s):

Condition Nos. 4, 10, 12 and 23 are hereby deleted and replaced with the following:

4. **PARTIES REPRESENTATIVES**

(a) EPA has designated Alison Devine, Emergency and Remedial Response Division, United States Environmental Protection Agency, Region 2, 290 Broadway, New York, New York, 10007-1866, (212) 637-4158 to serve as EPA Project Officer for this Cooperative Agreement.

(b) The recipient has designated Dale A. Desnoyers, Acting Director, Division of Environmental Remediation, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York, (518) 402-9706, to serve as the recipient's Project Manager for the Cooperative Agreement.

10. **LOBBYING AND LITIGATION CERTIFICATION**

The recipient agrees to provide EPA Form 5700-53, Lobbying and Litigation Certificate as mandated by EPA's annual appropriations act. A chief executive officer of any entity receiving funds under this Act shall certify that none of these funds have been used to engage in the lobbying of the Federal Government or in litigation against the United States unless authorized under existing law. The certification must be submitted in accordance with the instructions provided by the EPA award official and is due 90 days after the end of the project period.

12. **RECYCLED PAPER**

Pursuant to Executive Order 12873, recipients are to print documents/reports prepared under an EPA award of assistance on recycled paper and double sided. However this requirement does not apply to reports prepared on forms supplied by EPA.

23. **DISADVANTAGED BUSINESS ENTERPRISE FAIR SHARE REQUIREMENTS**

In accordance with EPA's Program for Utilization of Small, Minority and Women's Business Enterprises (MBE/WBE) in procurement under assistance programs, the recipient agrees to:

a. the applicable FY-2003 "fair share" goals negotiated with EPA by DEC which break down as follows:

- o for the New York Upstate Region MBE: Construction is 6%; Equipment, Supplies and Services are 8.8%.

- o for the New York Upstate Region WBE: Construction is 6%; Equipment, Supplies and Services are 8.8%.

- o for the New York City Region MBE: Construction is 21.5%; Equipment, Supplies and Services are 18.8%.

- o for the New York City Region WBE: Construction is 13.7%; Equipment, Supplies and Services are 20.5%.

b. ensure to the fullest extent possible that the applicable fair share goals as referenced in paragraph (a) are applied to Federal funds for prime contracts or subcontracts for Construction, Equipment, Supplies and Services. The recipient agrees to include in its bid documents the applicable FY 2003 "fair share" objectives and require all of its prime contractors to include in their bid documents for subcontractors the applicable FY 2003 "fair share" percentages and to comply with paragraphs (c) (d) and (e).

c. follow the six affirmative steps stated in 40 CFR 30.44(b), 40 CFR 31.36(e), 35.3145(d), 35.6580, or the Drinking Water State Revolving Fund (SRF) program guideline as appropriate.

d. submit an EPA Form 5700-52A, MBE/WBE Utilization Under Federal Grants, Cooperative Agreements, and Interagency Agreements to Otto Salamon the Region 2 MBE/WBE, Small Disadvantaged Business Utilization Officer (SDBUO) beginning with the Federal fiscal year quarter the recipient receives the award and continuing until the project is completed. These reports must be submitted to the SDBUO within 30 days of the end of the Federal fiscal quarter (January 30, April 30, July 30 and October 30) except for assistance awards for Continuing Environmental Programs which must be submitted to the SDBUO by October 30 of each year.

e. notify EPA in advance of any race and/or gender conscious action it plans to take to more closely achieve the fair share objective, in the event race and/or gender neutral efforts prove to be inadequate to achieve a fair share objective for MBE/WBE.

Condition Nos. 28 and 29 are added as follows:

28. **LIMITATIONS ON CHARGING COSTS**

The recipient may not charge costs to this agreement for any substitute sites, until the EPA Project Officer has specifically approved the site in writing.

29. **PURCHASE OF PRODUCTS CONTAINING RECYCLED MATERIALS**

Any State agency or agency of a political subdivision of a State which is using appropriated Federal funds shall comply with Section 6002 of the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6962). RCRA Section 6002 requires that preference be given in procurement programs to the purchase of specific products containing recycled materials identified in guidelines developed by the Environmental Protection Agency (EPA). Current guidelines are contained in 40 CFR 247-254. State and local recipients and subrecipients of grants, loans, cooperative agreements or other instruments funded by appropriated Federal funds shall give preference in procurement programs to the purchase of recycled products pursuant to the EPA guidelines.

30. **CLARIFICATION TO THE WORKPLAN**

Funding from this Cooperative Agreement provides support for pre-remedial activities only and

may not be used for redevelopment activities.

New York State Department of Environmental Conservation
Division of Environmental Remediation, 12th Floor
625 Broadway, Albany, New York 12233-7011
Phone: (518) 402-9706 • FAX: (518) 402-9020
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

MEMORANDUM

TO: Richard K. Randles, Director, Division of Management and Budget Services

FROM: Dale A. Desnoyers, Acting Director, Division of Environmental Remediation

SUBJECT: Acceptance of Federal Assistance Agreement No. V002956-01-3 for the Hazardous Waste Site Inventory - Brownfields Site Assessment and Voluntary Cleanup Program

DATE: OCT 21 2002

The United States Environmental Protection Agency (USEPA) has awarded Amendment No. 3 of Federal Assistance Agreement No. V002956-01 to the New York State Department of Environmental Conservation (NYSDEC) and has forwarded it to the Department for acceptance. This amendment awards $375,000 in federal funds for Hazardous Waste Site Inventory Program activities related to Brownfields Site Assessments. In addition, the Budget/Project period is extended through September 30, 2003.

This award is the result of an application prepared by the Department and certified to the USEPA on June 5, 2002. Please refer to the attached memorandum dated May 29, 2002 for additional information.

Attached are an acceptance letter and three (3) copies of USEPA Form 5700-20A. Your signature is required on all of these documents in order to execute this agreement. Our acceptance must be returned to the USEPA as soon as possible.

Attachments

cc: F. Pacowski

bcc: D. Desnoyers (2)
R. Marino
D. Farrar
W. Bayer
P. Gallagher
R. Evans
Daybook

accmemo3

bcc:

M. O'Toole (2)
R. Marino
D. Farrar
W. Bayer
S. Leyden
Daybook

rtment of Environmental Conservation
al Remediation, 12th Floor
rk 12233-7011
: (518) 402-9020

Erin M. Crotty
Commissioner

hwsibfvcp memo

MEMORANDUM

TO: Richard K. Randles, Director, Division of Management and Budget Services

FROM: Michael J. O'Toole Jr., Director, Division of Environmental Remediation

SUBJECT: Amendment to Federal Assistance Agreement No. V002956-01 for Hazardous Waste Site Inventory Program - Brownfields Assessment and Voluntary Cleanup Program Site Support

DATE: MAY 29 2002

SUMMARY:

In accordance with the provisions of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the New York State Department of Environmental Conservation (NYSDEC) is requesting $375,000 in federal funds from the United States Environmental Protection Agency (USEPA) to initiate Expanded Site Inspections (ESIs) at three (3) Brownfield sites, as defined by the USEPA, during the period October 1, 2002 through September 30, 2003.

We are also requesting the Project/Budget Periods be extended from September 30, 2002 to September 30, 2003.

BACKGROUND:

On September 30, 1992, the NYSDEC and the USEPA entered into Cooperative Agreement No. V002956-92. Under this agreement, NYSDEC received federal funds to perform SIs and ESIs. In 1998, both agencies modified the initial Cooperative Agreement to undertake new initiatives in investigating Targeted Site Assessments for Brownfields sites and site specific Voluntary Cleanups and funding for these new initiatives was included as part of the Cooperative Agreement.

In 1999, the application for funding for the Brownfields Targeted Site Assessments and site specific Voluntary Cleanups was submitted as a new Cooperative Agreement No. V002956-01 in a separate application as requested by USEPA.

COSTS:

The USEPA will provide an additional $375,000 in federal funds to perform three ESIs at Brownfield Targeted sites during the period of October 1, 2002 through September 30, 2003.

FUNDING SOURCE:

Funding is being requested from the USEPA through SARA.

DUE DATE:

This application must be forwarded to the USEPA as soon as possible.

ALTERNATIVES:

The alternative to this funding would be to provide funding from the State Superfund.

ACTION REQUESTED:

Your signature is required on the transmittal letter to USEPA; on Page 1 of USEPA Standard Form 424; on Page 2 of USEPA Assurances, Standard Form 424B; USEPA Form 5700-49, Certification Regarding Debarment Suspension, and Other Responsibility Matters; Disclosure of Lobbying Activities Form; on the Certifications for Contracts, Grants, Loans, and Cooperative Agreement Form; and on Form 5700-48 Procurement System Certification.

cc: F. Pacowski

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9551 • **FAX:** (518) 402-9020
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

AUG - 5 2002

Ms. Nuria Muniz
Emergency and Remedial Response Division
USEPA Region II
290 Broadway - 18th Floor
New York, New York 10007-1866

Nuria

Dear Ms. Muniz:

Enclosed is a copy of Appendix C from our Former Manufactured Gas Plant Search Initiative of January 2002. This is a list of sites where the owners were not yet determined and where DEC has intentions to pursue - pending financial and human resources.

We would like to consider them as potential candidates for the Brownfields Targeted Site Investigation Grant. We also just recently received an application from a community group in Harlem that is under review.

Please call me with any questions.

Sincerely,

Wayne

Wayne R. Bayer
Environmental Program Specialist 2
Site Control Section

Enclosure

bcc: R. Marino
D. Farrar
W. Bayer

WB/srh

Facility Name: Blue Point Laundry
Address: 1 Park Street, Blue Point, N.Y.
SCTM: 0200-982.3-3-47
SCDHS File No: 00588
SCDHS Reg No: 2-0388

Purpose of Project

The purpose of the investigation at the former Blue Point Laundry Site is to characterize and determine the extent of soil, sediment, groundwater and surface water contamination in order to develop a remediation plan for the identified contamination that will consider anticipated use (when determined) and can be implemented in a cost-effective manner.

Site Description

The Former Blue Point Laundry Site is located as indicated on the attached map and aerial photograph. The property is approximately 2.1 acres in size. Two buildings were formerly located at the property.

SCDHS File Check

- **National Millworks** was located at this site after the Blue Point Laundry went out of business. Address is listed as **36 Park Ave**. SCDHS is currently performing a **Brownfields** investigation. SCDHS has 9 tank removals identified, but only 2 removals have been inspected by SCDHS. Two of these (2 UG 1000 gal) in particular were for solvent storage and were removed in 1986.

- NYSDEC spill number 91-08441 is still open. The monitoring well monitoring ceased in 1994. This was from the 10,000 gal # 4 fuel tank removal.

Current Ownership

The current owner of the property is **Suffolk County.** The property deed was taken in June, 2001.

4-27-01 SCDHS Open View Inspection

A visual inspection from Park St. was performed. This inspection revealed that the building was demolished and the property was fenced. The concrete pad from the building is still visible. There is one 55 gal drum on the east side of the property. There is groundwater seepage near Park Street visibly percolating up from the ground and running to the east. Photos have been obtained.

SCDHS Sampling in April & May 2000

The following sample locations had concentrations over the SCDHS action levels for remediation:

- **East end of Building located on grass area:** Solid sample from a tank/pool had several VOC's over the SCDHS action levels for remediation, chlorobenzene of 24,000 ppb being the highest.

- **Interior floor drain on NW side of Building:** Solid sample from a slotted manway had a lead concentration over the action level. Lead was 470 ppm.

- **Floor drain of former machine shop:** Sludge sample had several VOC's and metals over the action levels. Most notable were trimethylbenzenes of 25,600 ppb and lead of 2400 ppm.

- **Dark Soil on ground at SW corner of Property:** This sample had a lead of 1120 ppm, which is over the action level.

SCDHS Groundwater Sampling of 9-20-00

- Seven geoprobe groundwater samples were obtained. Generally, the 5 upgradient samples were below the water quality standards (WQS). Two downgradient samples were found to contain concentrations over the WQS.
- BP3 had a lead of 33 ppb and BP4 had several VOC's over the WQS; most significantly 1,3,5 -trimethylbenzene of 300 ppb, 1,2,4- trimethylbenzene of 900 ppb, and trichloroethene of 21 ppb. **These results indicate that groundwater quality has been degraded from the past activities on this site.**

12-12-01 Brownfields Application

Suffolk County's Brownfields consultant, Dvirka and Bartilucci, prepared an application for the Brownfields program. The application is for the grant for the site investigation report (SIR) and the remedial alternatives report (RAR). The estimated cost of these reports is $143,500, which includes a 20% contingency ($24,000) to allow for scope modifications during the course of the investigation. The application has been held pending the outcome of deliberations concerning amendments to the Brownfields program.

02-01-02 Targeted Site Assessment Grant Application

The NYSDEC has submitted an application to the USEPA's Emergency and Remedial Response Division on behalf of Suffolk County's Blue Point Laundry facility for the Brownfields Targeted Site Investigation Grant program. The program will provide funding directly to the NYSDEC to perform site assessment work.

08-08-02 Targeted Site Assessment Grant Approval

The application to the USEPA through the NYSDEC was approved on May 8, 2002. Payment for expenses incurred on the Targeted Brownfields Assessment activities at the Blue Point Laundry site can be requested under the Brownfields Site Assessment and Voluntary Cleanup Program Site Support Cooperative Agreement No. V002956-01-0.

Recommendations

- There are at least 4 known locations which require remediations and endpoint sampling:

  East end of Building located on grass area

  Interior floor drain on NW side of Building

  Floor drain of former machine shop

  Dark Soil on ground at SW corner of Property

- SCDHS has 9 tank removals identified, but only 2 removals have been inspected by SCDHS. Generally, these locations need further exploration and sampling. Two of these (2 UG 1000 gal) in particular were for solvent storage and were removed in 1986. These 2 locations in particular need further exploration and sampling. Depending on the results, additional remediations may be required.

- NYSDEC spill number 91-08441 is still open. The monitoring well monitoring ceased in 1994. This was from the 10,000 gal # 4 fuel tank removal. This area needs further exploration and sampling. Depending on the results, additional remediation may be required.

- Additional Groundwater Exploration is needed to delineate the perimeters of the plume downgradient of the site. Groundwater remediation may be required depending on the results.

- Removal of the concrete slabs is recommended. Ecological restoration in the area of the concrete slabs has been recommended.

- Removal of the underground 24 inch "Purgatory Creek Drainage Pipe" has been recommended. The area should be restored to native freshwater wetland vegetation.

- A biofiltration area has been recommended for the creek. This may be eligible for funding under the Bond Act / EPF.

- Piping has been observed with no apparent termination point. These need to be traced out and evaluated.

- A survey of the site with references to fixed points has been recommended.

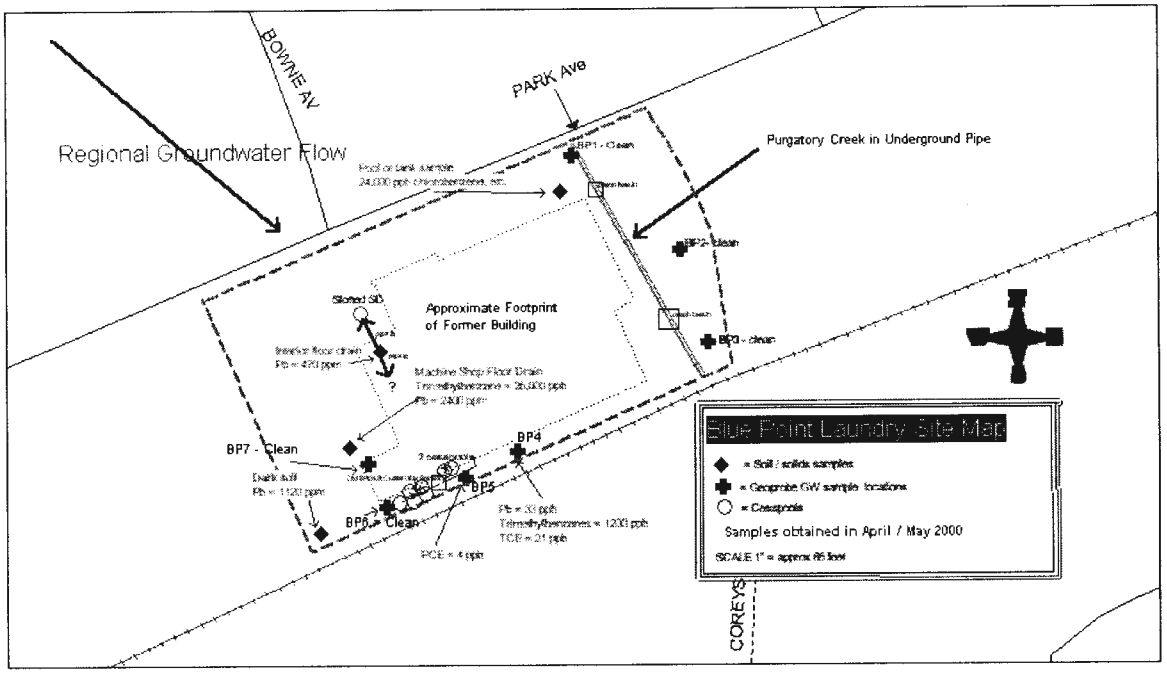
- The 55 gal drum seen on site recently should be properly evaluated and disposed of.

- A freshwater wetland permit from the NYSDEC may be required for the subsequent Phase 2 investigation.

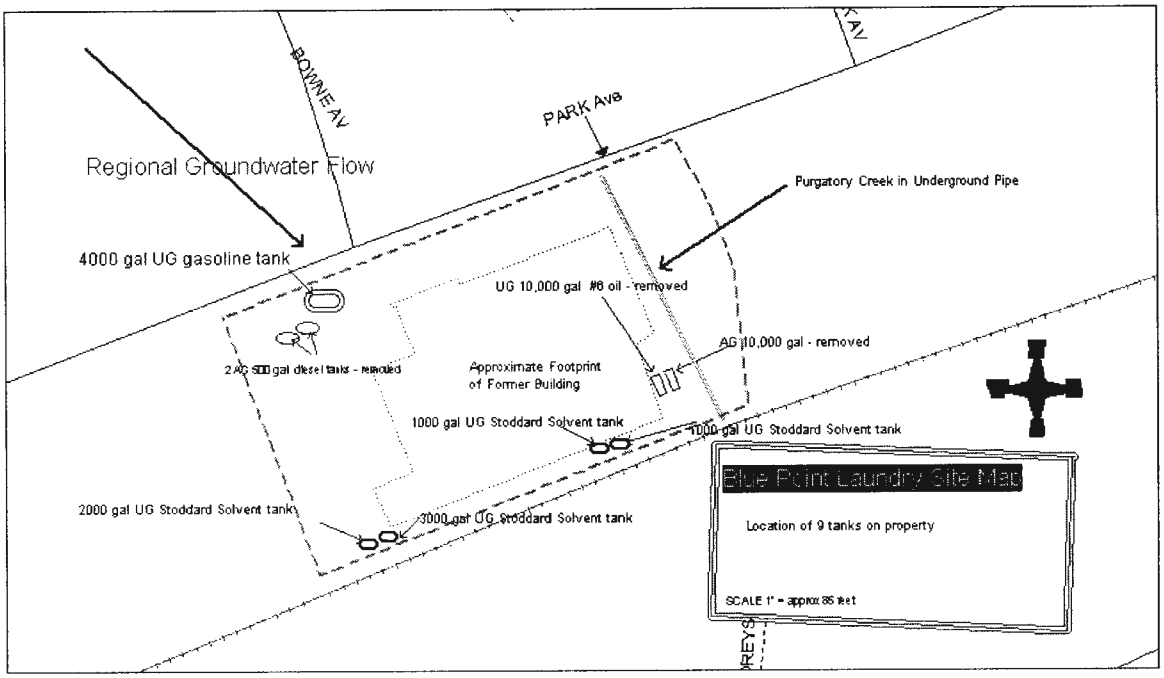
Drum on East Side of Lot
Blue Point Laundry
April 27, 2001

Middle of Lot
Blue Point Laundry
April 27, 2001

SCDHS Site Map

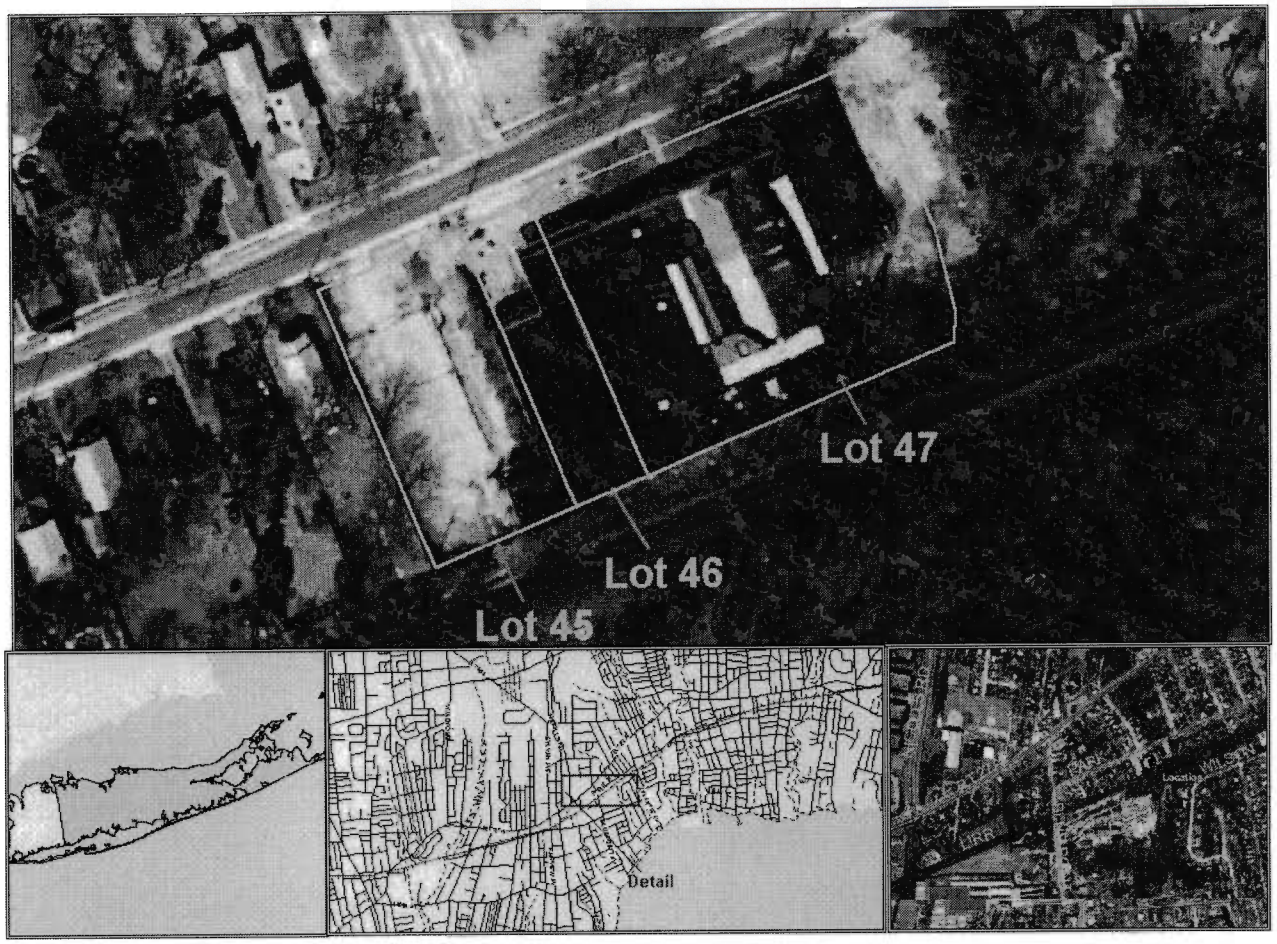


SCDHS Tank Location Map



SCDHS Aerial Photo

0200-982.3-3-47 Blue Point Laundry - 1 Park Steet, Blue Point



U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION II
Emergency and Remedial Response Division
Brownfields Initiative
290 Broadway, 18th Floor
New York, New York 10007-1866

May 8, 2002

Robert L. Marino, Chief Site Control Section
NYSDEC Division of Environmental Remediation
Bureau of Hazardous Site Control
625 Broadway
Albany NY 12233-7014

Re: Brownfields Targeted Assessment Site Approval

This letter is in response to your letters dated January 28, 2001 and March 5, 2002 requesting site approval for the following properties selected for VCP site-specific activities under the Targeted Brownfields Assessment (TBA) Cooperative Agreement:

- Blue Point Laundry located at County Road 31, 36 Park Ave (a.k.a. 1 Park Street) Blue Point, NY
- Former Lehigh Valley Roundhouse located at Merrick Circle, Manchester, NY 14504

Payment for expenses incurred on TBA activities at these sites are hereby approved and can now be requested under the Brownfields Site Assessment and Voluntary Cleanup Program Site Support Cooperative Agreement No. V002956-01-0.

If you have any questions please contact me at (212) 637-4302 or by e-mail at muniz.nuria @epamail.epa.gov or call Larry D'Andrea, Brownfields Team Leader at (212) 637-4314.

Sincerely,

Nuria Muñiz
Project Officer (TBA)
U.S. EPA Region 2

cc: Wayne Bayer, NYSDEC
Larry D'Andrea, EPA
Alison Devine, EPA
Yvette Cardona EPA

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Hazardous Site Control, 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9551 • **FAX:** (518) 402-9020
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

MAR - 5 2002

Ms. Nuria Muniz
Emergency and Remedial Response Division
USEPA Region II
290 Broadway - 18th Floor
New York, New York 10007-1866

Dear Ms. Muniz:

Re: Candidate for Brownfields Targeted
Site Investigation Grant - Blue Point Laundry

Enclosed please find an application for a Brownfields Targeted Site Investigation.

This site is in Blue Point, Suffolk County and was a former Commercial Laundry Building that was demolished in 2000. Suffolk County has taken possession of the property for non-payment of taxes. The County Department of Health has performed a limited preliminary assessment at this location.

Please call or write Wayne Bayer of my staff if you have questions or require more information.

Sincerely,

Robert L. Marino
Director
Bureau of Hazardous Site Control

Enclosure

cc: W. Bayer

bcc: M. O'Toole
R. Marino
D. Farrar
W. Parish, R/1

WB/srh

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region One
Building 40 - SUNY, Stony Brook, New York 11790-2356
Phone: (631) 444-0240 • **FAX:** (631) 444-0248
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

MEMORANDUM

FEB 12 2002

TO : Wayne Bayer , BSC

FROM : Walter Parish , Region 1 WP

SUBJECT : Brownfields Grant Candidate

DATE : February 6 , 2002

As requested attached is a Site Investigation Information Form with a site sketch and a map of the Blue Point Laundry site in Suffolk County . This is our proposed candidate for the EPA funded Targeted Site Assessment PSA Grant . Suffolk County has taken this property for non-payment of back taxes and the SCDH has performed the preliminary assessment at this location . If you need additional information please contact me .

cc: R . Cowen
C . Costopoulos

DIVISION OF ENVIRONMENTAL REMEDIATION

SITE INVESTIGATION INFORMATION

1. SITE NAME - Blue Point Laundry	2. SITE NUMBER	3. TOWN/CITY/VILLAGE - Blue Point	4. COUNTY - Suffolk

5. REGION - 1	6. CLASSIFICATION
	CURRENT [ ] PROPOSED [X] MODIFICATION

7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location)

a. Quadrangle - Patchogue b. Site Latitude - 73° 2' 6" Site Longitude - 40° 45' 13"

c. Tax Map Number(s) - 0200-982.3-3-47, 46 and 45 d. Site Street Address - 36 Park Ave, aka 1 Park Street

8. BRIEFLY DESCRIBE THE SITE (Attach site map showing disposal/sampling locations)

Former Commercial Laundry Building, which was demolished in 2000. A surface water creek known as Purgatory or Corey Creek runs through the property. This creek has been hard piped and placed underground. Site was known to have 9 tanks (underground solvent, gas and oil tanks). Open DEC spill # 91-08441 for a 10,000 gal fuel oil tank removal. Only 2 tanks were removed under SCDHS oversight. Leaching pools, at least 7, documented in historic records, have not been sampled. Old SPDES map shows 5 cesspools and a septic tank behind the building.

(Sampling Map attached, Tank Location Map Attached, Aerial Photograph attached).

a. Area - 1.79 acres b. Completed: ( ) Env. Property Assessment ( ) PSA ( ) SI ( ) ESI ( ) IRM ( )RI/FS ( ) Construction ( ) O&M (X)Other - Limited Soil and GW Sampling

9. HAZARDOUS WASTE DISPOSED (Include EPA Hazardous Waste Numbers)

Lead (7439-92-1), Chlorobenzene (108-90-7), Trimethylbenzenes (95-63-6 and 108-67-8), Benzene (71-43-2), 1,4-Dichlorobenzene (106-46-7), Naphthalene (91-20-3), Diethylbenzene (NA), Tetramethylbenzenes (488-23-3 and 527-53-7), etc.

10. ANALYTICAL DATA AVAILABLE

a. ( )Air (x)Groundwater ( )Surface Water ( )Sediment (x)Soil (x)Waste ( )Leachate ( )EPTox ( )TCLP

b. Contravention of Standards or Guidance Values

ater Quality Standards exceeded for Pb (33 ppb) in GW, Trichloroethene of 21 ppb in GW, Trimethylbenzenes of 1200 ppb in GW.
Soil Guidance Levels (TAGM) have been exceeded for Lead ranging from 470 to 2400 ppm and VOC's with chlorobenzene of 24,000 ppb being the highest concentration.

11. CONCLUSION

A focused preliminary site assessment is needed to more fully characterize the extent of exceedances identified in limited sampling performed by SCDHS. The leaching pools need to be sampled and evaluated. The former tank areas need to be evaluated. The floor drains and piping need additional exploration and evaluation. The groundwater plume needs additional characterization and exploration.

a. Institutional Controls (IC) Required? ( )Y (X)N b. If yes, identify c. Are these ICs in place and verified? ( )Y ( )N

12. SITE IMPACT DATA

a. Nearest Surface Water: Distance - 0 ft. Purgatory / Corie Direction - East Class - SA

b. Groundwater: Depth - 0 to 5 ft. Flow Direction - Southeast (X)Sole Source ( )Primary ( )Other High-Yield Aquifer

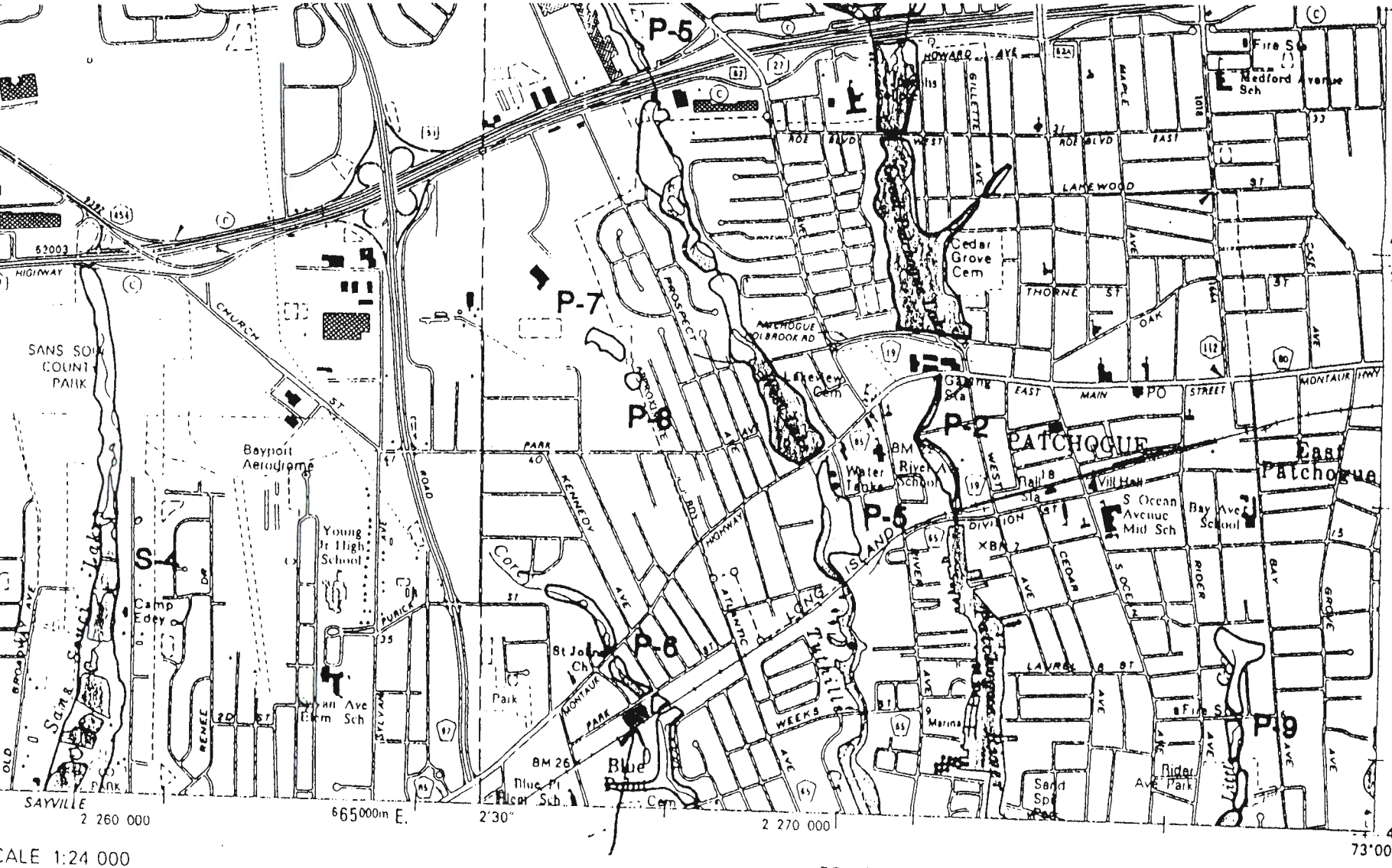
c. Water Supply: Distance - 3400 ft. Direction - East Active (X)Yes ( )No

d. Nearest Building: Distance - 20 ft. Direction - West Use - Residence

e. Documented fish or wildlife mortality?	( )Y	(X)N	h. Exposed hazardous waste?	( )Y	( )N Unkown
f. Impact on special status fish or wildlife resource?	( )Y	(X)N	i. If proposed Classification is 2, Priority?	( ) 1 ( ) 2	( ) 3
g. Controlled Site Access?	(X)Y	( )N	j. EPA ID# - NA	HRS Score	- NA

13. SITE OWNER'S NAME - County of Suffolk	14. ADDRESS - Division of Real Estate, PO Box 6100, Hauppage, NY 11788	15. TELEPHONE NUMBER 631-853- 5907

16. PREPARER - Eric Joungblood, Associate Sanitarian, Suffolk County DHS	17. APPROVED Walter J. Parish 2/6/02
Signature Eric Joungblood Date 2-1-02	Signature Date
Name, Title, Organization SCDH	WALTER T. PARISH RHWRE, REGION 1
	Name, Title, Organization



necessarily wetland.

Adjacent are areas within wetland. The suant to the delineated or extended by the New York Conservation

Copies of Fre from the regi vironmental C inspection at clerk's offices

REVISION D/

SCALE 1:24 000

0 1 MILE

3000 4000 5000 6000 7000 FEET

0 1 KILOMETER

Projection, 1927 North American Datum

North American Datum move the projection lines meters west as shown by dashed corner ticks

New York Transverse Mercator projection /grid

projection/grid is identical to Zone 18 of the Universal Transverse and west of 78° are direct mathematical extensions of Zone 18 its projection scale factor in order to maintain true 1:24,000 scale factor at this quadrangle location is 0.9999

York State Plane Coordinate System

INDEX TO 1:9600 (1" = 800') MAP COVERAGE

PATCHOGUE (north)

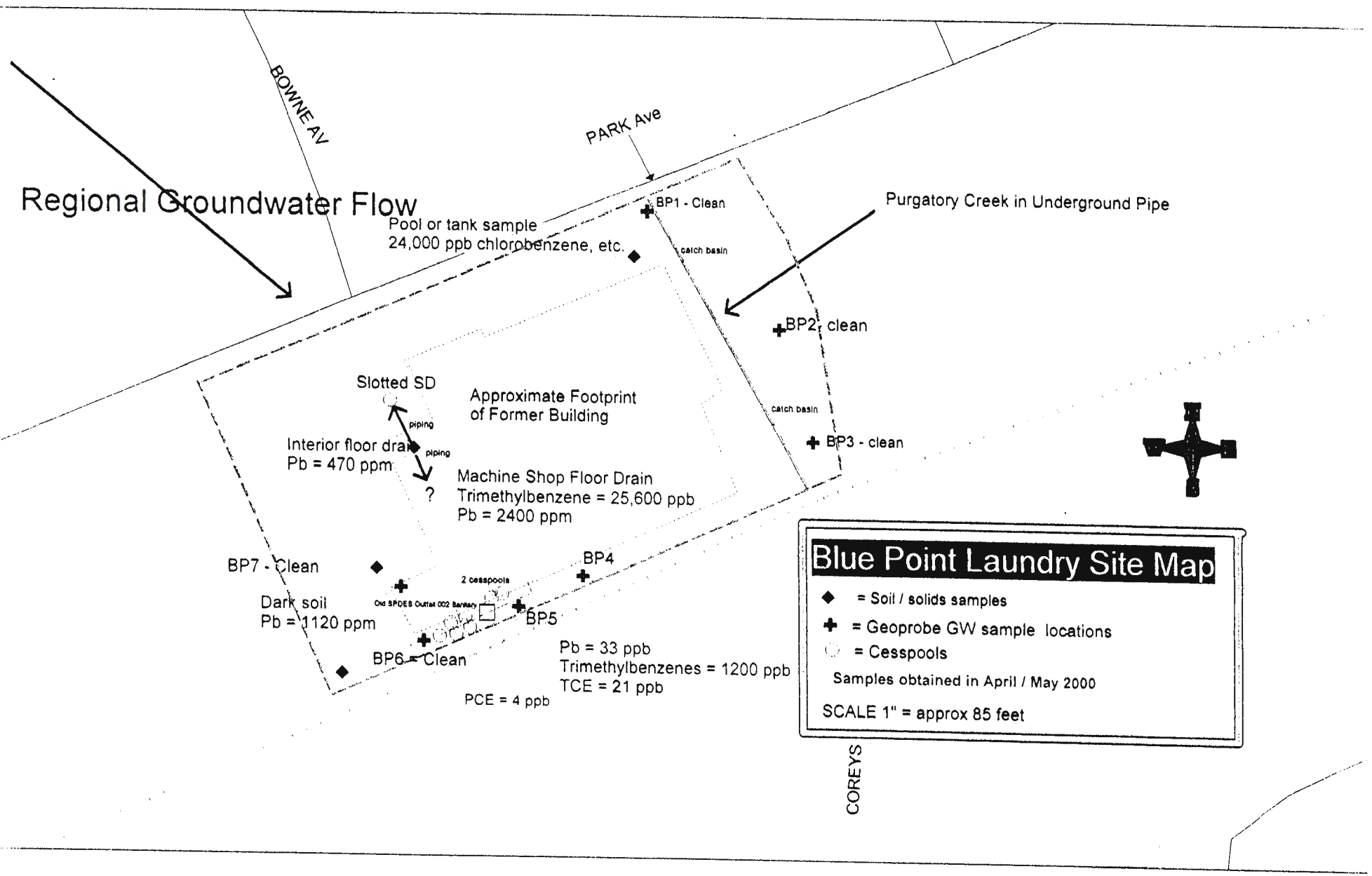
PATCHOGUE (south)

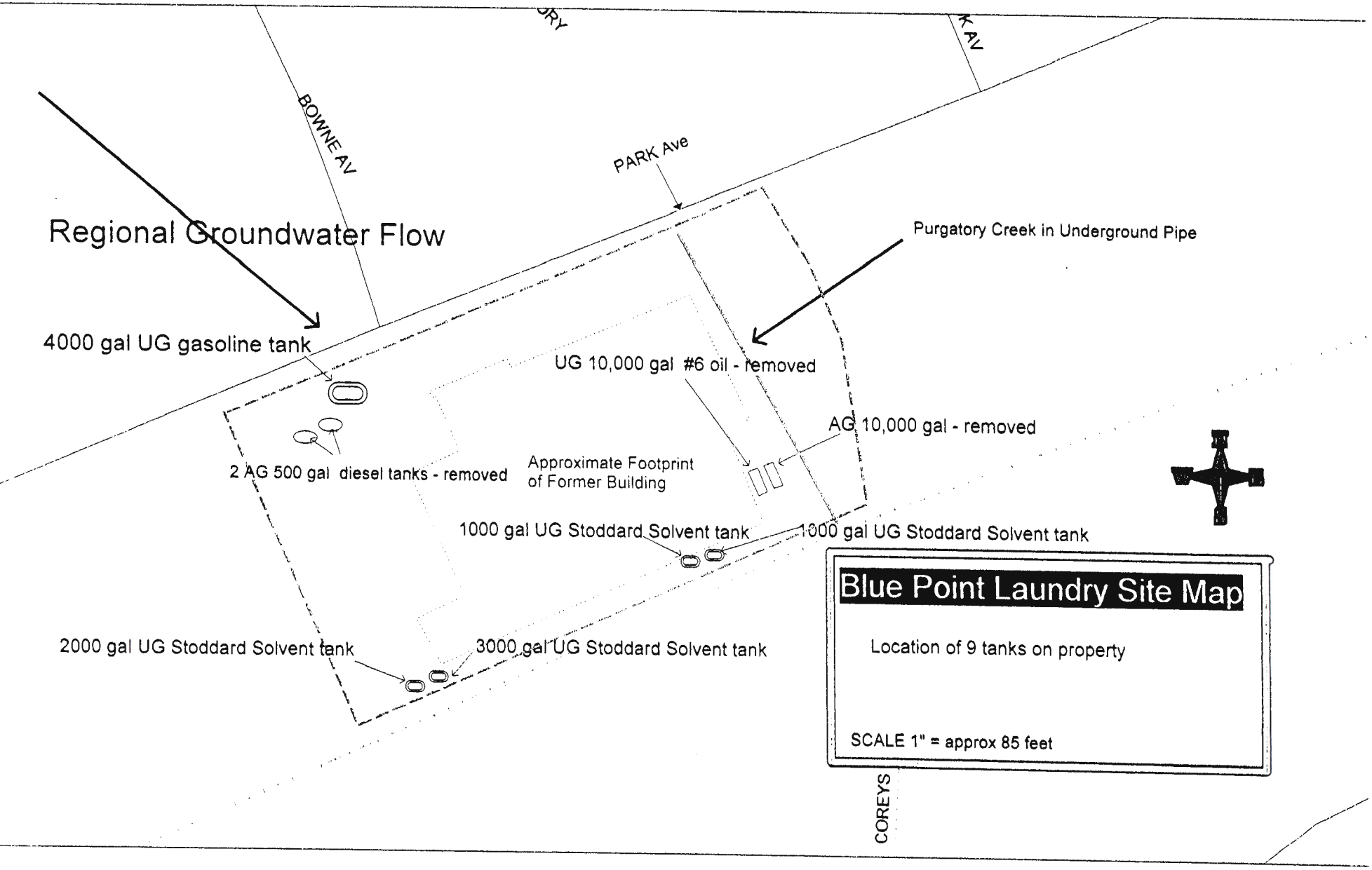
BOUNDARIES:
- State
- County
- Town or City
- Incorporated Village
- State / Federal Land

ROADS:
- Posted Touring Route:
  - Interstate (87)
  - U S (20)
  - State (36)
  - County (51)
- State Highway (SH) number and limit 8020
- County road (22)

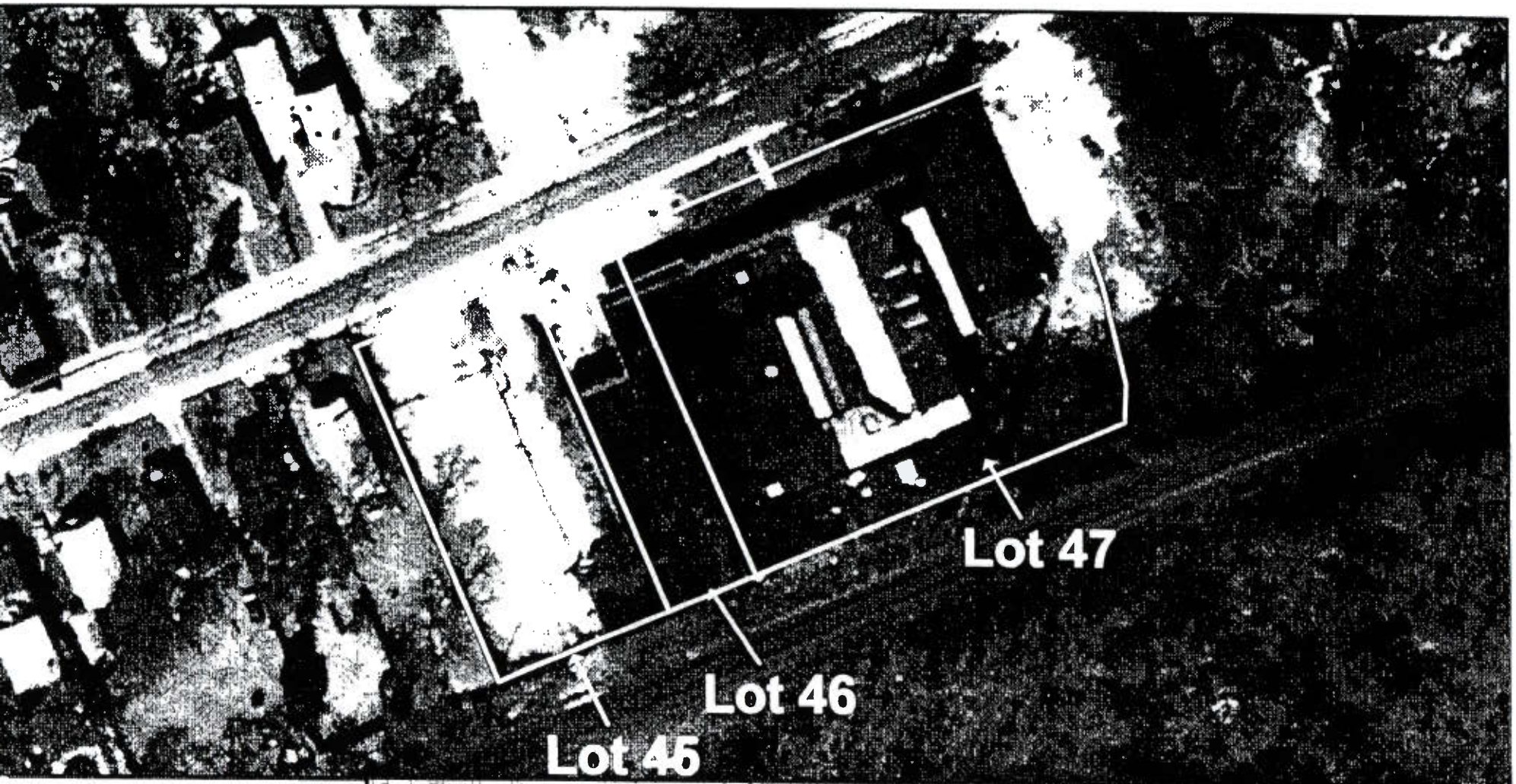
Divided
- Wide mall
- Narrow mall or barrier

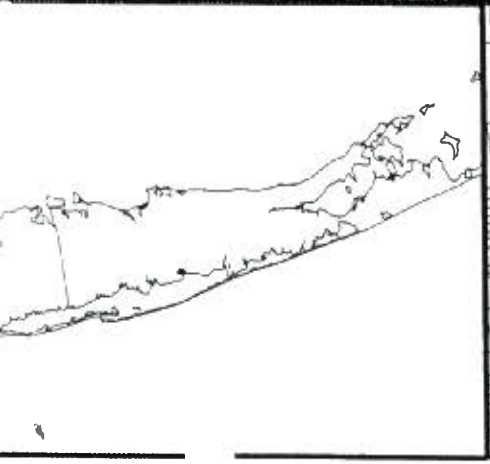
Undivided
- 4 or more lanes
- Less than 4 lanes


BOWNE AV
PARK Ave
Regional Groundwater Flow
Purgatory Creek in Underground Pipe
BP1 - Clean
Pool or tank sample
24,000 ppb chlorobenzene, etc.
catch basin
BP2 - clean
Slotted SD
Approximate Footprint
of Former Building
piping
piping
Interior floor drain
Pb = 470 ppm
?
Machine Shop Floor Drain
Trimethylbenzene = 25,600 ppb
Pb = 2400 ppm
catch basin
BP3 - clean
BP7 - Clean
BP4
2 cesspools
Old SPDES Outfall 002 Battery
Dark soil
Pb = 1120 ppm
BP5
BP6 - Clean
Pb = 33 ppb
Trimethylbenzenes = 1200 ppb
TCE = 21 ppb
PCE = 4 ppb
COREYS
Blue Point Laundry Site Map
= Soil / solids samples
= Geoprobe GW sample locations
= Cesspools
Samples obtained in April / May 2000
SCALE 1" = approx 85 feet


BOWNE AV
PARK Ave
Regional Groundwater Flow
Purgatory Creek in Underground Pipe
4000 gal UG gasoline tank
UG 10,000 gal #6 oil - removed
AG 10,000 gal - removed
2 AG 500 gal diesel tanks - removed
Approximate Footprint of Former Building
1000 gal UG Stoddard Solvent tank
1000 gal UG Stoddard Solvent tank
2000 gal UG Stoddard Solvent tank
3000 gal UG Stoddard Solvent tank
Blue Point Laundry Site Map
Location of 9 tanks on property
SCALE 1" = approx 85 feet
COREYS

0200-982.3-3-47 Blue Point Laundry - 1 Park Steet, Blue Point





New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Central Remedial Action, Room 228
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5677 • **FAX:** (518) 457-7925
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

June 27, 2001

Mr. Lawrence V. D'Andrea
USEPA - Region 2
290 Broadway - 18th Floor
New York, NY 10007-1866

Dear Mr. D'Andrea:

RE: Brownfield Targeted Site Assessment Work Plan
Mill Building No. 2
Village of New York Mills
Oneida County, New York

Examples

Enclosed is the Work Plan for the Brownfield Targeted Site Assessment at the former Mill Building No. 2 site located in the Village of New York Mills, Oneida County, New York. Please review, and provide me with any comments from the USEPA in writing by c.o. b. July 20, 2001. Should we receive no comments on the Work Plan by this date, we will assume that the USEPA has no comments on the plan, and we will proceed.

Thank you for your prompt attention to this matter. If you would like to discuss this project, please do not hesitate to contact me at (518) 457-5677. Also, please note that as of July 16, 2001 my new address, phone number, and fax number will be: NYSDEC, 625 Broadway, Albany, NY 12233-7016 - Phone : (518) 402-9775 Fax: (518) 402-9020.

Sincerely,

Brian H. Davidson

Brian H. Davidson
Project Manager
Central Remedial Action
Division of Environmental Remediation

Enclosures

cc: W. Bayer
D. Farrar

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Central Remedial Action, Room 228
625 Broadway, Albany, New York 12233-7016
Phone: (518) 402-9775 • **FAX:** (518) 402-9020
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

January 10, 2002

Ms. Nuria Muniz
USEPA - Region 2
290 Broadway - 18th Floor
New York, NY 10007-1866

Dear Ms. Muniz:

RE: Brownfield Targeted Site Assessment Report
Mill Building No. 2
Village of New York Mills
Oneida County, New York

Enclosed please find two (2) copies of the Brownfield Targeted Site Assessment Report for Mill Building No. 2. This report is also being reviewed by the New York State Department of Health, NYSDEC regional staff, and our Division Quality Assurance Officer, Timothy LeBarron. Please provide me with any USEPA comments on the report by January 31, 2002.

I plan to schedule a public informational meeting for the site at the New York Mills Village Office in early February. If you have any questions or concerns, please do not hesitate to contact me at (518) 402-9775.

Sincerely,

O/S

Brian H. Davidson
Project Manager
Central Remedial Action
Division of Environmental Remediation

Enclosures

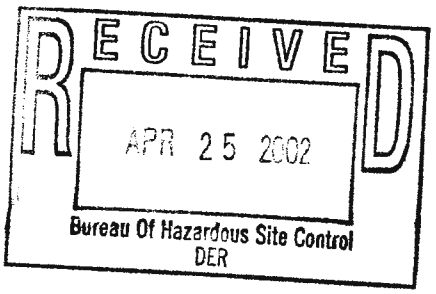
cc: Wayne Bayer, w/o enclosures

bcc: T. LeBarron ✓

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Central Remedial Action, Room 228
625 Broadway, Albany, New York 12233-7016
Phone: (518) 402-9775 • **FAX:** (518) 402-9020
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

April 22, 2002



Ms. Nuria Muniz
USEPA - Region 2
290 Broadway - 18th Floor
New York, NY 10007-1866

Dear Ms. Muniz:

RE: Brownfield Targeted Site Assessment Report
Mill Building No. 2
Village of New York Mills
Oneida County, New York

Enclosed please find the Brownfield Targeted Site Assessment Final Report for Mill Building No. 2. This report was reviewed and accepted by our Division Quality Assurance Officer.

Copies of this final report have been distributed to the Village of New York Mills, the Herkimer-Oneida Counties Comprehensive Planning Program, the New York Mills Public Library, and our regional offices in Utica and Watertown.

Sincerely,

Brian H. Davidson
Project Manager
Central Remedial Action
Division of Environmental Remediation

Enclosure

cc: Wayne Bayer, w/o enclosures

New York State
Freshwater Wetlands Map

Suffolk County

This map was promulgated, pursuant to Article 24 of the Environmental Conservation Law (The Freshwater Wetlands Act) on May 26, 1993 by the Commissioner of New York State Department of Environmental Conservation.

LEGEND

- Approximate wetland boundary
- U — Upland inclusion
- AA-00 — Wetland identification code
- ---- — This line groups parcels that have the same wetland identification code. This line does not delineate the adjacent area.
- * — Denotes extended adjacent area.

Notes:

This map indicates the approximate location of the actual boundaries of wetlands regulated according to the Freshwater Wetlands Act.

Map information other than the wetland boundaries was prepared by the New York State Department of Transportation and the United States Geological Survey. This locational information provided on the map is for reference only. Marsh symbols do not necessarily indicate the location of a regulated wetland.

Adjacent areas of the regulated wetlands are those areas within 100 feet of the boundary of the wetland. These areas are subject to regulation pursuant to the Freshwater Wetlands Act but are not delineated on this map. An adjacent area may be extended by special order of the Commissioner of the New York State Department of Environmental Conservation or the local regulatory authority.

Copies of Freshwater Wetlands Maps are available from the regional offices of the Department of Environmental Conservation. Maps are available for inspection at these offices and local government clerk's offices.

REVISION DATE

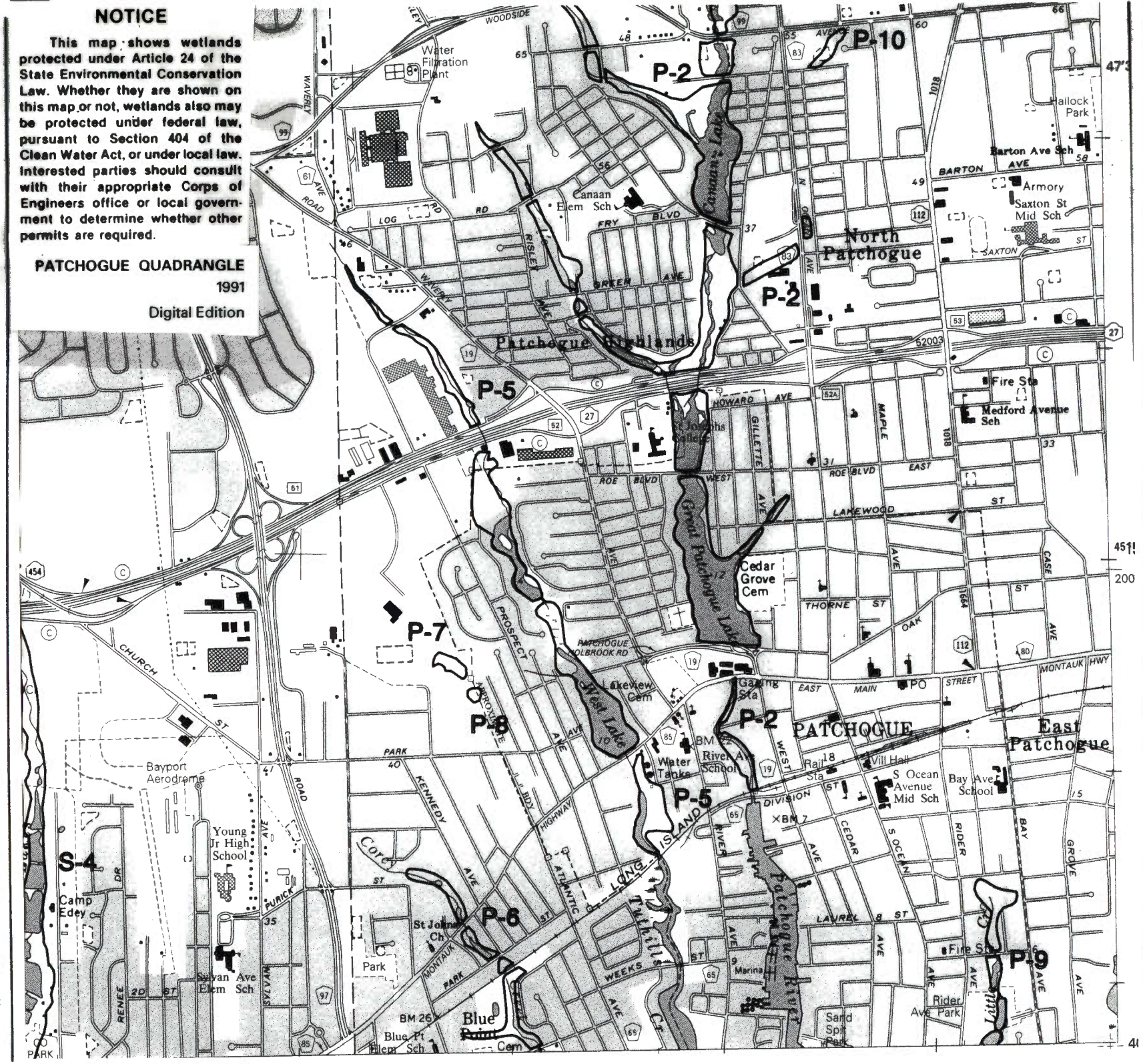
NOTICE

This map shows wetlands protected under Article 24 of the State Environmental Conservation Law. Whether they are shown on this map or not, wetlands also may be protected under federal law, pursuant to Section 404 of the Clean Water Act, or under local law. Interested parties should consult with their appropriate Corps of Engineers office or local government to determine whether other permits are required.

PATCHOGUE QUADRANGLE

1991

Digital Edition



COPY OF SIGNED C.O. - PAID $5,000 FINE 4/8/86 $5,000 LTR OF CR. 7/31/86

STATE OF NEW YORK

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

RECEIVED
APR 15 1986
WATER UNIT
DEC REGION

In the Matter of the Alleged Violation of Article 17 of the New York State Environmental Conservation Law, others if cited, e.g. by

ORDER ON CONSENT

BLUE POINT LAUNDRY legal file

FILE No. 1-0424

(Suffolk County) Respondent

SPDES NO. NY0089681

WHEREAS, the Respondent herein, Blue Point Laundry, Inc., having offices at Park Street, Blue Point, New York 11715, discharges commercial laundry wastes from a facility located at Park Street, Blue Point, New York; and

WHEREAS, Section 71-1929.1 of the Environmental Conservation Law requires that a person who violates any of the provisions of, or who fails to perform any duty imposed by titles 1 through 11 inclusive and title 19 of article 17, of the rules, regulations, orders or determinations of the commissioner promulgated thereto or the terms of any permit issued thereunder, shall be liable to a penalty of not to exceed ten thousand dollars per day of such violation, and, in addition thereto, such person may be enjoined from continuing such violation; and

WHEREAS, Respondent executed a Consent Order with the department on January 28, 1983; and

WHEREAS, said consent order required Respondent to commence construction of a new wastewater treatment facility within two and one half (2½) months after department approval of Respondent's plans and specifications; and

WHEREAS, the department approved Respondent's plans and specifications on November 21, 1984; and

WHEREAS, Respondent has not commenced the required construction; and

WHEREAS, Respondent has affirmatively waived its right to a public hearing in this matter in the manner provided by law and having consented to the issuing and entering of this Order pursuant to the provisions of the Environmental Conservation Law, agrees to be bound by the terms and conditions contained therein; and

NOW, having considered this matter and being duly advised, it is

ORDERED, that with respect to the aforesaid violations and in accord with a stipulation place on the record on March 10, 1986 (copy attached), there is hereby imposed upon Respondent a penalty in the sum of Fifty Thousand ($50,000) Dollars, which shall become due and payable upon execution of this order, of which Thirty Five Thousand ($35,000) Dollars shall be made payable to the Department in the form of a letter of credit or other secured undertaking acceptable to the department said $35,000 Dollars to be suspended provided Respondent strictly adheres to the terms and conditions outlined in Schedule A, the Compliance Schedule attached hereto and made a part hereof; and it is further.

ORDERED, that the provisions, terms and conditions of this Order shall be deemed to bind Respondent, its successors and assigns and all persons, firms and corporations acting under or for it, including, but not limited to those who may carry on any or all of the operations now being conducted by Respondent, whether at the present location or at any other in this State; and it is further

ORDERED, that in those instances in which Respondent desires that any of the provisions, terms or conditions of this Order be changed, it shall make written application, setting forth the grounds for the relief sought, to the Commissioner, c/o Joan B. Scherb, Regional Attorney, Building 40, State University of New York, Stony Brook, New York 11794; and it is further

ORDERED, that any change in this Order shall not be made or become effective, except as specifically set forth by written order or the Commissioner such written order being made either upon written application of the Respondent or upon the Commissioner's own findings.

Dated: Albany, New York
Aug. 6 1986

HENRY G. WILLIAMS
Commissioner of Environmental Conservation

By Harold D. Berger
HAROLD D. BERGER
Regional Director

TO: Blue Point Laundry, Inc.
Park Street
Blue Point, NY 11715
Attn: Walter A. Sullivan, Pres.

CONSENT BY RESPONDENT

Respondent acknowledges the authority and jurisdiction of the Commissioner of Environmental Conservation of the State of New York to issue the foregoing Order, waives public hearing or other proceedings in this matter, accepts the terms and conditions set forth in the Order and consents to the issuance thereof.

By Walter A. Sullivan Pres

STATE OF NEW YORK)
ss:
COUNTY OF SUFFOLK)

On the 12th day of April, 1986, before me personally came WALTER A. SULLIVAN to me known, who being duly sworn, desposed and said that he is the PRESIDENT of Respondent Firm and that he signed his name for and on behalf of said Firm with full authority so to do.

Howard R. Fritz
NOTARY PUBLIC

HOWARD R. FRITZ
Notary Public, State of New York
No. 30-1334600
Qualified in Nassau County
Commission Expires March 30, 1987

SCHEDULE A

SCHEDULE OF COMPLIANCE FOR CONSENT ORDER AND EFFLUENT LIMITATIONS

(a) Respondent shall achieve compliance with this Consent Order and SPDES Permit in accordance with the following schedule:

Compliance Action	Due Date
Complete construction of the wastewater treatment facility in accordance with the plans and specifications as approved on November 21, 1984, or at Respondent's option, cease discharge of commercial laundry wastes (sanitary wastes only may be discharged under a modified SPDES permit).	September 13, 1986

*or such other wastes as may be approved by the Department following submission of plans and specifications to the Department and any such discharge shall not commence unless and until such Department approval has been obtained.

(b) Respondent shall submit a written notice of compliance or noncompliance with the above schedule date, postmarked no later than 14 days following each elapsed date. Each notice of noncompliance shall include the following information:

1. A short description of the noncompliance

2. A description of any actions taken or proposed by Respondent to comply with the elapsed schedule requirement without further delay;

3. A description of any factors which tend to explain or mitigate the noncompliance; and

4. An estimate of the date Respondent will comply with the elapsed scheduled requirement and an assessment of the probability that Respondent will meet the next scheduled requirement on time.

SCHEDULE OF COMPLIANCE FOR CONSENT ORDER AND EFFLUENT LIMITATIONS

(c) Respondent shall submit copies of the written notice of compliance or noncompliance required herein to the following offices:

Chief, Compliance Section
Bureau of Wastewater Facilities
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Regional Water Engineer - Region 1
New York State Department of Environmental Conservation
Building #40 SUNY
Stony Brook, NY 11794

Suffolk County Department of Health Services
15 Horseblock Place
Farmingville, NY 11738
Attn: James Maloney, P.E.

Copies: R. Hannaford, BWFD
A. Yerman, RWQE
S. Costa, SCDHS

Facility ID No. : NY- 008-9681

Effective Date (EDP) : June 1, 1984

Attachments: General Conditions (Part II) (8/81)
Order on Consent (No. 1-0424)

Expiration Date (ExDP) : June 1, 1989

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)
DISCHARGE PERMIT

Special Conditions
(Part I)

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et. seq.) (hereinafter referred to as "the Act").

Permittee Name: Blue Point Laundry, Inc., Walter Sullivan, President

Permittee Street: Park Street

Permittee City: Blue Point State: New York Zip Code: 11715

is authorized to discharge from the facility described below:

Facility Name: Blue Point Laundry

Facility Location (C,T,V): Brookhaven (T) County: Suffolk

Facility Mailing Address (Street): Park Street

Facility Mailing Address (City): Blue Point State: NY Zip Code: 11715

into receiving waters known as: Groundwaters - Class GA

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

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal as prescribed by Sections 17-0803 and 17-0804 of the Environmental Conservation Law and Parts 621, 752, and 755 of the Departments' rules and regulations.

By Authority of Daniel J. Larkin, Regional Permit Administrator
Designated Representative of Commissioner of the
Department of Environmental Conservation

11/27/84
Date

Signature

INITIAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP (June 1, 1984)
and lasting until October 1, 1984
the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Daily Max.	Units	Measurement Frequency	Sample Type
001 - Process Wastewaters					
Flow	-	-	GPD	Continuous	Meter
pH (range)	-	-	SU	Daily	Grab
MBAS	-	-	mg/l	Monthly	24-hr composite
Fluoride	-	-	mg/l	Monthly	24-hr composite
Oil & Grease	-	-	mg/l	Monthly	24-hr composite
Total Dissolved Solids	-	-	mg/l	Monthly	24-hr composite
Nitrogen-Total (As N)	-	-	mg/l	Monthly	24-hr composite
Suspended Solids	-	-	mg/l	Monthly	24-hr composite
Chloroform *	-	-	ug/l	Monthly	24-hr composite
1,1,2 Trichloroethylene *	-	-	ug/l	Monthly	24-hr composite
Tetrachloroethylene *	-	-	ug/l	Monthly	24-hr composite
Chlorine Residual Total	0.5 (min.)	-	mg/l	Daily	Grab
Coliforms Total	400	-	No./100 ml	Weekly	Grab
002 - Sanitary Wastes					
Flow	2000	-	GPD	N/A	N/A

Note: The permit application must list all the corrosion/scale inhibitors or biocidal-type compounds used by the permittee. If use of new boiler/cooling water additives is intended, application must be made prior to use.

* Monitoring frequency for these parameters may be reduced if the parameters are not detected in the discharge.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning October 1, 1984
and lasting until EDP + 5 years (June 1, 1989)
the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Discharge Limitations Daily Max.	Units	Measurement Frequency	Sample Type
001 - Process Wastewaters					
Flow		120,000	GPD	Continuous	Meter
pH (range)	6.5 to 8.5	-	SU	Daily	Grab
MBAS	1.0	-	mg/l	Monthly	24-hr composite
Fluoride	3.0	-	mg/l	Monthly	24-hr composite
Oil & Grease	15	-	mg/l	Monthly	24-hr composite
Total Dissolved Solids	1000	-	mg/l	Monthly	24-hr composite
Nitrogen-Total (as N)	10	-	mg/l	Monthly	24-hr composite
Suspended Solids	100	-	mg/l	Monthly	24-hr composite
Chloroform*	100	-	ug/l	Monthly	24-hr composite
1,1,2 Trichloroethylene*	10	-	ug/l	Monthly	24-hr composite
Tetrachloroethylene*	2	-	ug/l	Monthly	24-hr composite
Chlorine Residual Total	0.5 (min)		mg/l	Daily	Grab
Coliforms Total	400		No./100 ml	Weekly	Grab
002 - Sanitary Wastes					
Flow	2000	-	GPD	N/A	N/A

Note: The permit application must list all the corrosion/scale inhibitors or biocidal-type compounds used by the permittee. If use of new boiler/cooling water additivies is intended, application must be made prior to use.

* Monitoring frequency for these parameters may be reduced if the parameters are not detected in the discharge.

SCHEDULE OF COMPLIANCE FOR EFFLUENT LIMITATIONS

(a) Permittee shall achieve compliance with the effluent limitations specified in this permit for the permitted discharge(s) in accordance with the following schedule:

Action Code	Outfall Number(s)	Compliance Action	Due Date
01	001	Submission of approvable Engineering Report	January 15, 1983
01a	001	Response to Comments	May 15, 1983
02	001	Submission of Final Plans & Specs	October 1, 1983
04	001	Commencement of Construction	March 15, 1984
08	001	Completion of Construction	July 15, 1984
09	001	Attainment of Operational level	October 1, 1984

(b) The permittee shall submit to the Department of Environmental Conservation the required document(s) where a specific action is required in (a) above to be taken by a certain date, and a written notice of compliance or noncompliance with each of the above schedule dates, postmarked no later than 14 days following each elapsed date. Each notice of noncompliance shall include the following information:

1. A short description of the noncompliance;

2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement without further delay;

3. A description of any factors which tend to explain or mitigate the noncompliance; and

4. An estimate of the date permittee will comply with the elapsed schedule requirement and an assessment of the probability that permittee will meet the next scheduled requirement on time.

a) The permittee shall also refer to the General Conditions (Part II) of this permit for additional information concerning monitoring and reporting requirements and conditions.

b) The monitoring information required by this permit shall be summarized and reported by submitting a completed and signed Discharge Monitoring Report form once every 3 months to the Department of Environmental Conservation and other appropriate regulatory agencies at the offices specified below. The first report will be due no later than July 28, 1984. Thereafter, reports shall be submitted no later than the 28th of the following month(s): April, July, October, and January

Water Division
New York State Department of Environmental Conservation
50 Wolf Road - Albany, New York 12233

New York State Department of Environmental Conservation
Regional Engineer
Building #40 SUNY
Stony Brook, New York 11794

Suffolk County Department of Health Services
Water Pollution Control Section
15 Horseblock Place
Farmingville, New York 11738

☐ (Applicable only if checked):

Dr. Richard Baker, Chief - Permits Administration Branch
Planning & Management Division
USEPA Region II
26 Federal Plaza
New York, New York 10278

c) If so directed by this permit or by previous request, Monthly Wastewater Treatment Plant Operator's Reports shall be submitted to the DEC Regional Office and county health department or county environmental control agency specified above.

d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Reports.

f) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

g) Unless otherwise specified, all information submitted on the Discharge Monitoring Form shall be based upon measurements and sampling carried out during the most recently completed reporting period.

h) Blank Discharge Monitoring Report Forms are available at the above addresses.

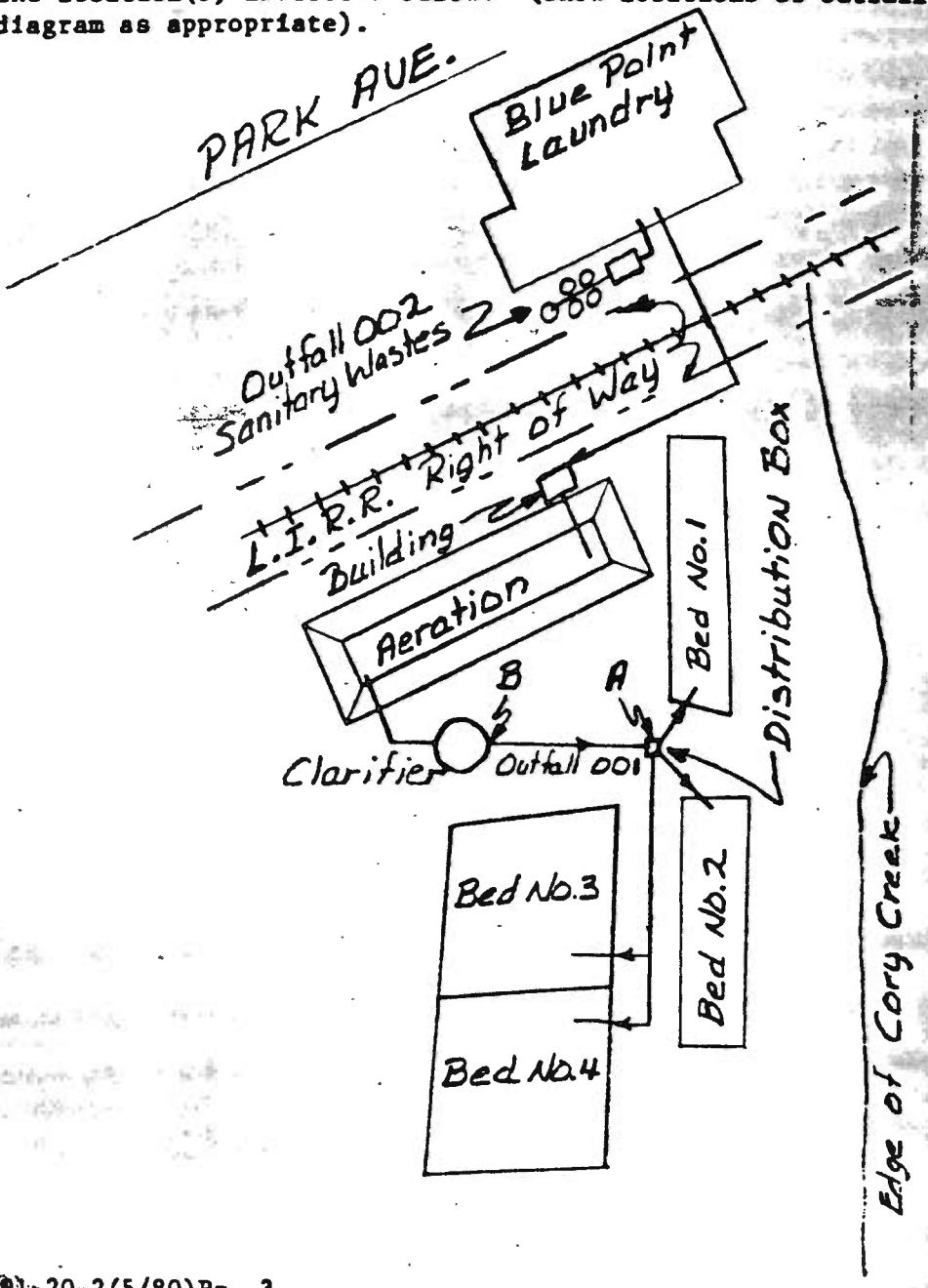
Definition of Daily Average and Daily Maximum

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriate units as specified herein divided by the number of days during the calendar month when the measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

Monitoring Locations For Final Effluent Limitations

Permittee shall take samples and measurements to meet the monitoring requirements at the location(s) indicated below: (Show locations of outfalls with sketch or flow diagram as appropriate).



Monitoring Locations

A - Distribution Manhole

Monitor for:
Chlorine Residual,
Coliforms Total,
pH

B - Clarifier Effluent

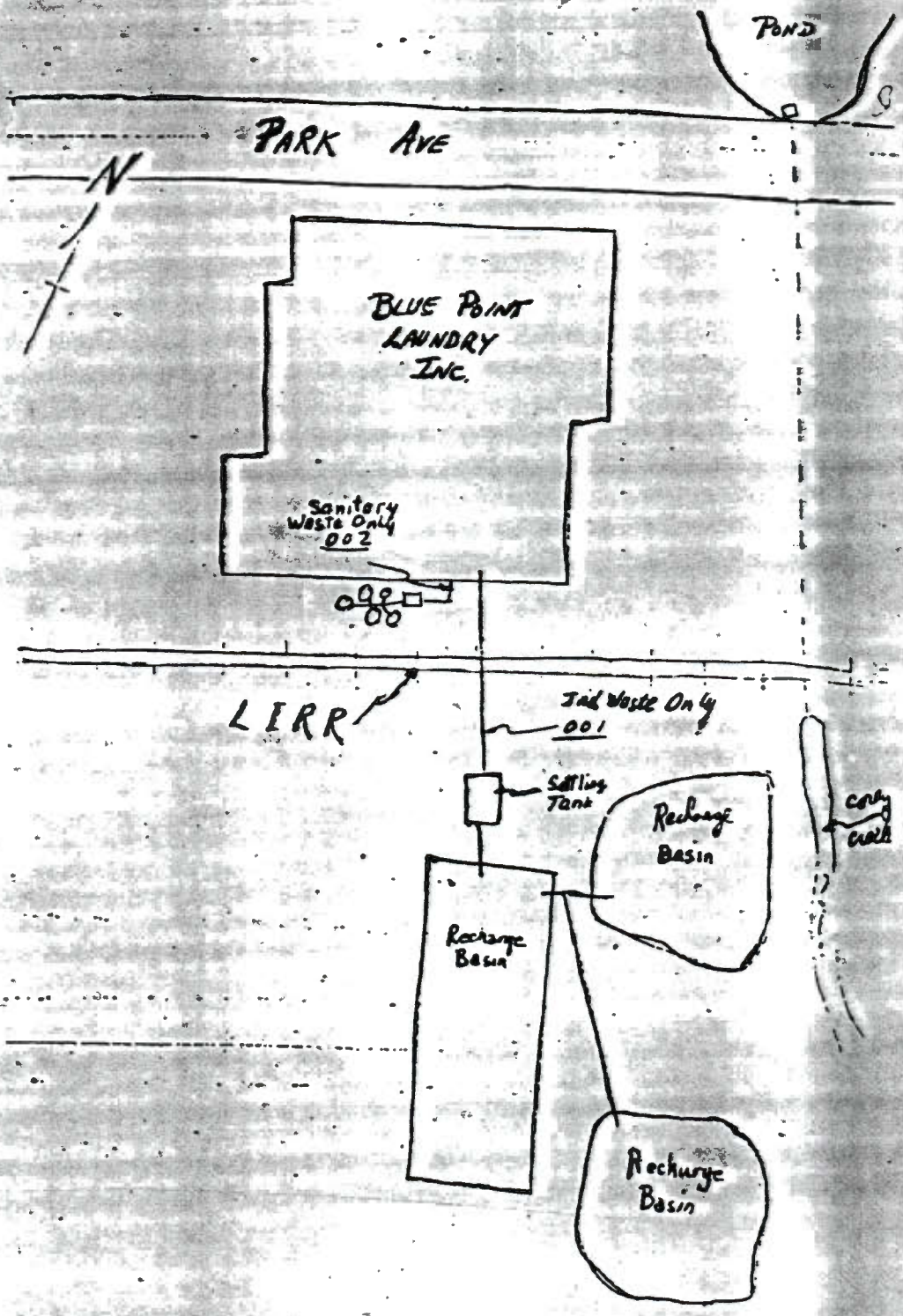
Monitor for all parameters listed on p.3 except those monitored at location A.

1984

This permit will be modified if DEC is authorized to recover from the permittee all or part of the direct and indirect expenses of developing, administering, processing, monitoring and/or enforcing SPDES permits.

Monitoring Locations for Interim Limitations

Permittee shall take samples and measurements to meet the monitoring requirements at the location(s) indicated below: (Show locations of outfalls with sketch or flow diagram as appropriate).



BLUE POINT LAUNDRY

Blue Point New York

ENGINEERING REPORT

TREATMENT OF COMMERCIAL LAUNDRY WASTES

DECEMBER, 1982

fanning, phillips & associates
ENGINEERS
PLAINVIEW NEW YORK

Revision Date:

I. GENERAL

Blue Point Laundry is located on Park Avenue in the village of Blue Point, Suffolk County, New York.

At the request of the owners of Blue Point Laundry and as part of the NYSDEC requirements for treatment, an investigation into various methods of treatment of laundry wastes was undertaken.

As background, the laundry employs 110 people, operating on an 8-hour 5-day work-week. In summer, work is sometimes carried on into Saturday morning, due to additional work from nearby commercial establishments; mainly motels. Principal clients include hospitals (80 % of volume) families (5% of volume), and commercial establishments (hotels/motels). There are relatively lightly soiled laundry. No garage or heavy, greasy materials are laundered.

DETAILS OF THE WASHING OPERATION

The laundry has the following washing machines:

3 at 800 pounds
1 at 400 pounds
1 at 200 pounds
1 at 50 pounds

A typical wash cycle includes:

Step 1 - fill - add alkalii and soap - dump
Step 2 - fill - add alkalii and soap - dump
Step 3 - fill - add bleach - dump
Step 4 - rinse - (continuous on 800 lb machines)
Step 5 - fill - add sour (actic acid), softener - dump

Water volumes used are considered low for the industry. The range of usages at similar laundries is 1-1/2 to 6 gallons per pound of (dry) wash. Blue Point uses 3 gallons per pound and washes from 115,000 to 130,000 pounds per week. Daily fresh water volumes used were measured at 78,000 gallons per day maximum. Actual waste volumes are 95% of this amount with the remaining volume being retained in the washed fabrics.

Wastewater volumes = (0.95 X 130,000 lbs. X gph)/5 days or
74,000 gallons per day.

Waste flow for design purposes: 120,000 gpd.

The 120,000 gpd design allows for planned new business and future expansion.

A list of the soaps, alkalis, bleach, sour, softener and mildew proof materials is included herein, along with a chemical breakdown of each. (See table 1A and 1B.)

Also included are typical wash room test report sheets used for control during each day. Some variation in cleaning chemicals weights are made during the day, depending on the varying degree of soil.

TABLE 1A

10/4/77

BLUE POINT LAUNDRY

WASH ROOM SUPPLIES

1) Soap - Manufacturer- Philadelphia Quartz - Brand name- Lydet

Twenty-five percent non ionic sufactant - biodegradable
Less than ten percent Butyl Callosolve
Less than one percent of following - both biodegradable
1) Flourecent white whitening agent
2) EDTA
Remainder - water

2) Alkali Manufacturer- Philadelphia Quartz - Brand name- Metso 200

One hundred percent (anhydrious) sodium orthosilacate
This is a caustic-inorganic material completely biodegradable

3) Cold Water Soap - Manufacturer- Philadelphia Quartz - Brand name- Xudet

One half Sodium Anhydrous Metasilacate
One third sodd ash (Sodium Carbonate)
Less than ten percent non ionic sufactant
One percent CMC
One percent Calicum Cylacate -(Keep product free flowing so it does not cake up)
Less than one percent brightener flourecent agent
Less than one percent perfume
Remainder - water

4) Acedic Acid

Fifty six percent (used as a sour)
Remainder - water

5) Mildew Proof Agent

Fifty percent Didecyl Dimchyl Chloride
Remainder - water

6) Softening agent - Manufacturer- Philadelphia Quartz -
Brand name- Amber Bright

Make up of this item to follow - it is the same softening agent used by Strable Laundry. (ANIONIC SHORT CHAIN LAS)

7) Liquid Bleach

Approximately Fourteen percent available Chlorine
Remainder - water

TABLE 1B

TYPICAL TEST WORK REPORT

BLUE POINT LAUNDRY

*ESTIMATED AVERAGE QUANTITY OF SUPPLIES AND WATER USED PER DAY

Water	80,000 gallons
Soap(regular)	3000 ounces
Soap(cold water)	300 ounces
Alkali	1000 pounds
Bleach	333 quarts
Acedic Acid	2000 ounces
Softener	2280 ounces
**Mildew Proof	122 ounces

* This is privileged and confidential information and should not be made available to my competitors.

** Used only in months of July, August and part of September(ten weeks total)

TABLE IIA

II WASTEWATER CHARACTERISTICS

During our work at Blue Point, six composite samples were taken on random days during 1974 and 1976. Waste analyses were for BOD and solids only, and ranged from 150 to 275 mg/L BOD (5-day) and 200 to 300 mg/L of suspended solids. Total solids were (525 to 800) always below 1000 mg/L with most (5 of the 6) samples below 600 mg/L. To establish design criteria, we composited samples over 3 hours on a day the wastes contained the worst soil. The results of these tests are noted as follows: (See attached Lab Sheet - Table IIA).

BOD - 3 day	280
BOD - 5 day	350
BOD - 7 day	400
BOD - 10 day	500
COD -	722
NH_3-N	0.7
Org-N	9.6
T-PO_4	3.04
pH (at 20°C)	11.5
Fl	2.05
TDS	736
TSS	196
TVS	508
Flow (gpd)	76,000

Again, this sample was taken over a 3-hour period on what we considered to be the poorest water quality. The 5-day BOD is approximately 70% of the ultimate.

Additional samples were taken on 9/10/82 and 11/17/82: See H2M Data attached.

Required removal rates are comparable with typical Domestic Sewage. Removal percentages would, therefor, be a function of Detention time and activated organisms.

Feral coliform reduction is a function of chlorine and contact time. Adding chlorine and holding the waste 15 minutes will insure compliance.

TABLE IIA

NEW YORK TESTING LABORATORIES, INC.

81 URBAN AVENUE, WESTBURY, L.I., N.Y. 11590 • P.O. BOX 484 • (212) 297-1449 • (516) 334-7770

REPORT OF TESTS

September 21, 1976

Lab. No. & Client	—	76-49389 - Richard Fanning
Material	—	One (1) Water Sample
Client's Order No.	—	Pending
Identification	—	Blue Point Laundry
Submitted for	—	Chemical Analysis

We find as follows:

BOD, 3 -day, mg/liter	280
BOD, 5 -day, mg/liter	350
BOD, 7 -day, mg/liter	400
BOD, 10-day, mg/liter	500
COD, mg/liter	722
Ammonia as N, mg/liter	0.70
Organic Nitrogen, mg/liter	9.60
Phosphorus, as PO_4, mg/liter	3.04
pH at 20 deg. C.	7.52
Fluoride, mg/liter	2.05
Total Dissolved Solids, mg/liter	736
Total Suspended Solids, mg/liter	196
Total Volatile Solids, mg/liter	508

We certify that this report is a true report of results obtained from our tests of this material.

Respectfully submitted,

NEW YORK TESTING LABORATORIES, INC.

G.J. Horvitz, Chief Officer

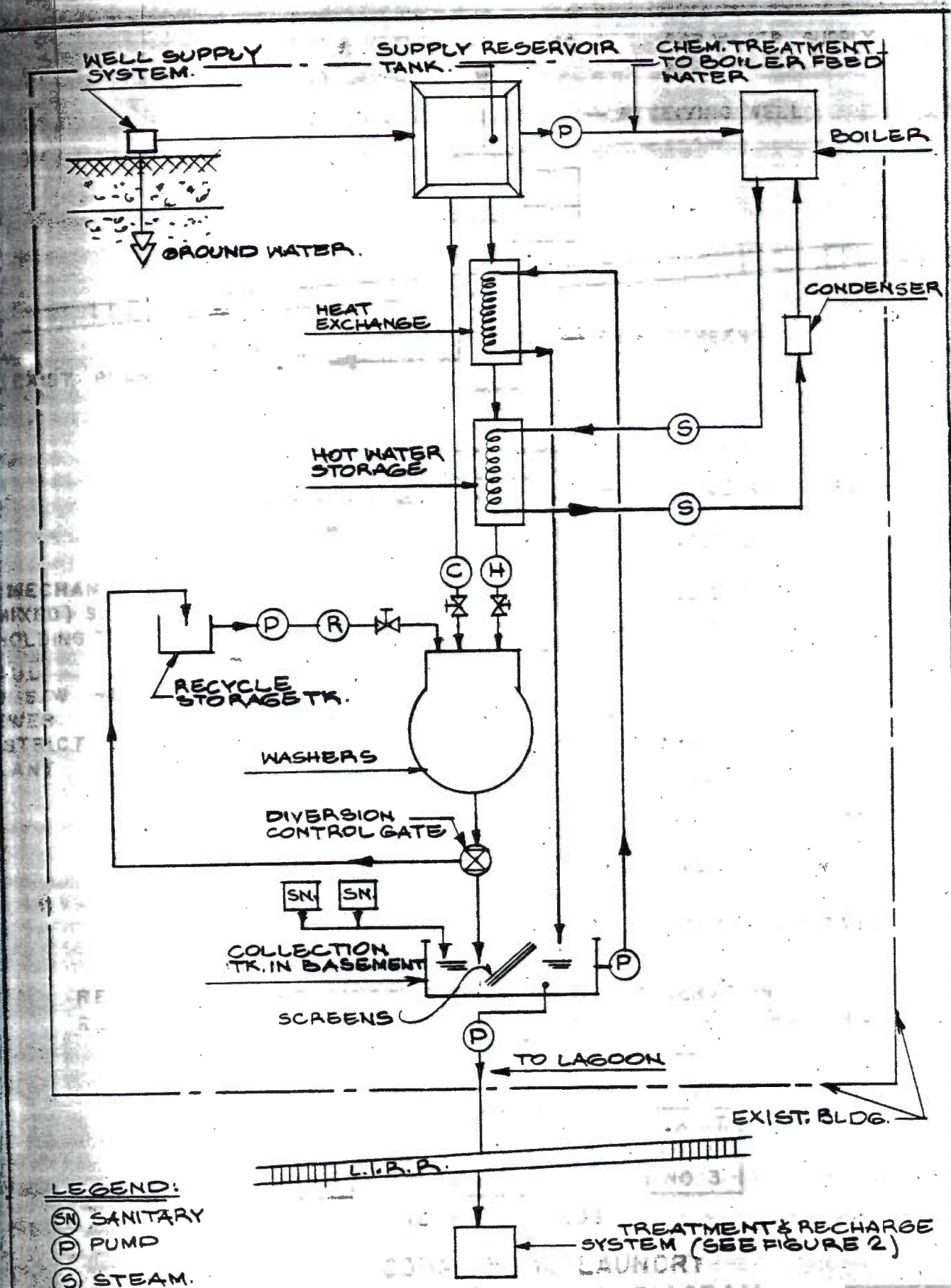
C.
Richard Fanning
73 New Woods Road
Glen Cove, N.Y. 11542

Att: Mr. Fanning

FORM 100 3M

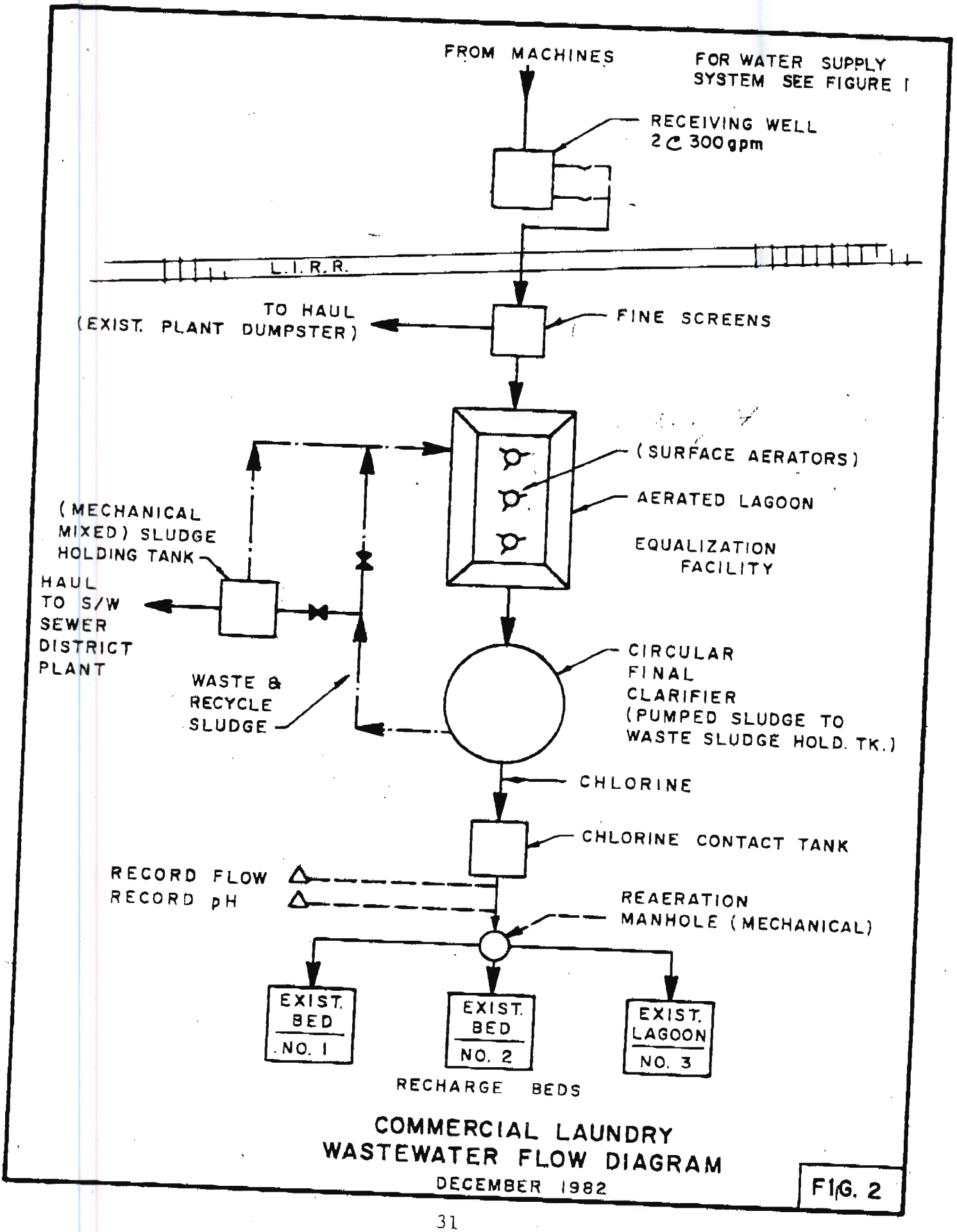
SAMPLE TAKEN ON 9/10/82

PARAMETER	RESULT
T. Diss Solids	920.
T. Kjel Nit.	14.4
Nitrite (NO2-N)	0.10
Nitrite (NO3-N)	0.10
Deterg. (MBAS)	1.56
Ammonia (NH3-N)	2.60
PH	11.4
Oil & Grease	68.9
BODS	230.
COD	415.
Sus. Solids	117.
Fluoride	0.15



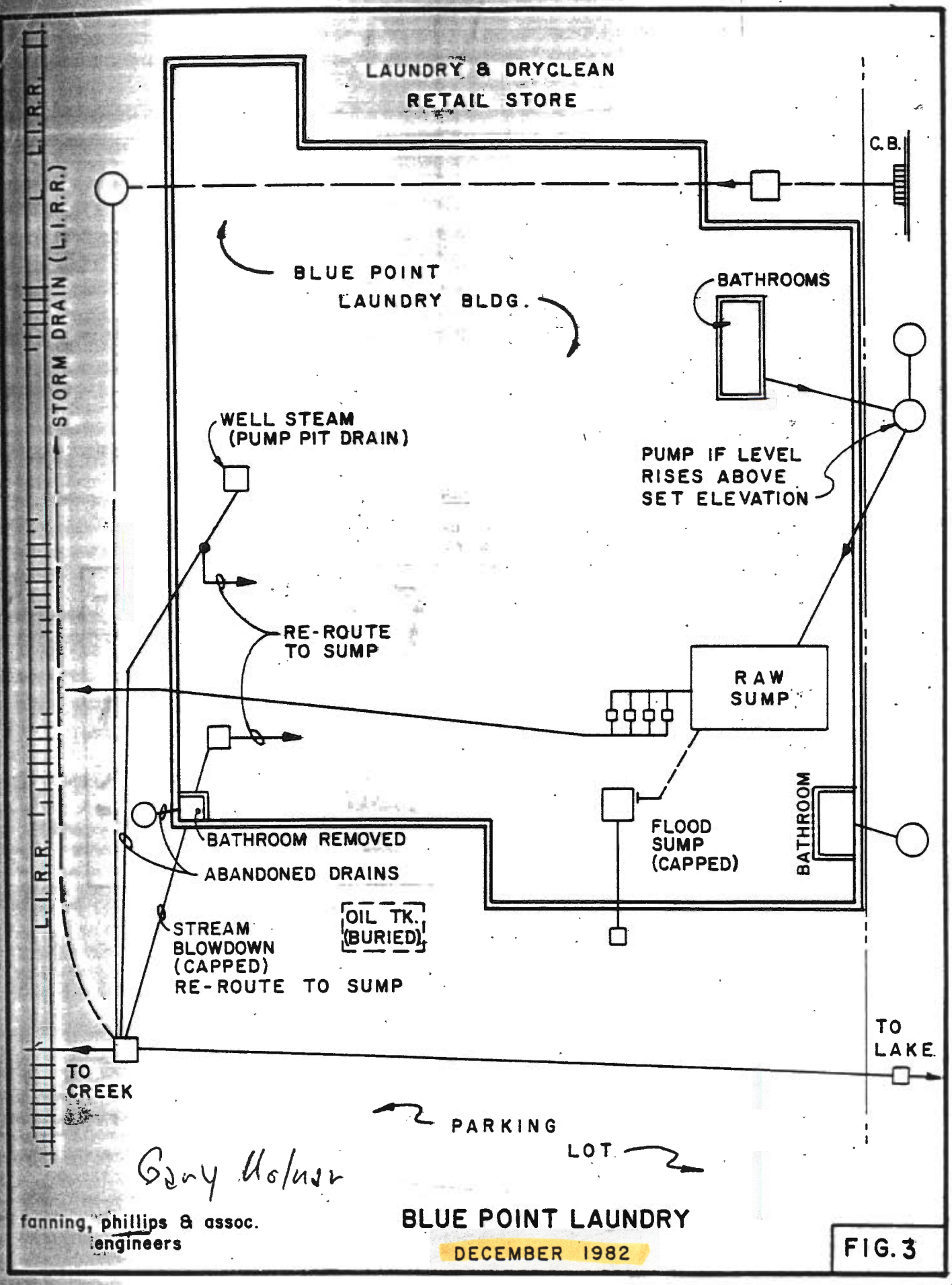
WATER SUPPLY SCHEMATIC.
MARCH 1983

FIGURE 1



COMMERCIAL LAUNDRY
WASTEWATER FLOW DIAGRAM
DECEMBER 1982

FIG. 2


LAUNDRY & DRYCLEAN
RETAIL STORE
C.B.
BLUE POINT
LAUNDRY BLDG.
BATHROOMS
STORM DRAIN (L.I.R.R.)
L.I.R.R.
WELL STEAM
(PUMP PIT DRAIN)
PUMP IF LEVEL
RISES ABOVE
SET ELEVATION
RE-ROUTE
TO SUMP
RAW
SUMP
BATHROOM REMOVED
ABANDONED DRAINS
FLOOD
SUMP
(CAPPED)
BATHROOM
OIL TK.
(BURIED)
STREAM
BLOWDOWN
(CAPPED)
RE-ROUTE TO SUMP
TO
LAKE
TO
CREEK
PARKING
LOT
Gary Holmes
fanning, phillips & assoc.
engineers
BLUE POINT LAUNDRY
DECEMBER 1982
FIG. 3

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL HEALTH SERVICES
BUREAU OF ENVIRONMENTAL POLLUTION CONTROL

NOTICE OF VIOLATION

Issued to (Company) Blue Pt Laundry Inc.

(address) Park St, Blue Pt. N.Y.

delivered to Walter Sullivan Jr. (Ass. Mgr.)

On (date, time) December 20, 1982

TAKE NOTICE THAT, on December 20, 1982 at 11:00 in the (fore) (after) noon, at the location of Park St, Blue Pt NY the waste water Disposal Sump Area South of this building, you were found to be in violation of Article 12 Section 1205 of the Suffolk County Sanitary Code in that: 1217

1) A discharge of laundry waste water from a leaching lagoon to a Near by stream occured at Blue Pt laundry, this stream was not approved by the Commissioner. 2) Blue Pt Laundry failed to notify our office within 24hrs. of Detection of the Spill.

TAKE FURTHER NOTICE THAT, pursuant to Article 3 of the New York State Public Health Law, Article 2 of the Suffolk County Sanitary Code provides that any non-compliance or non-conformance with any provision of the Suffolk County Sanitary Code shall constitute a violation, punishable on conviction by a fine not exceeding $250 or by imprisonment for not exceeding 15 days or by both.

TAKE FURTHER NOTICE THAT, Article 2 of the Suffolk County Sanitary Code provides that any person violating its terms or a lawful order or regulation made thereunder, shall be subject to a civil penalty of not more than $500 per violation for each day such violation continues.

Issued by Isidore Doroski

SCDH
1982 Report
See diagram

18-148: 5781

DEPARTMENT OF HEALTH SERVICES

INTEROFFICE MEMORANDUM

To: FOR THE RECORD

Date: Dec. 23, 1982

From: Gordon Watt

Subject: Blue Point Laundry

An inspection and conference was conducted this date at the Blue Point Laundry. In attendance were the writer, Walter Sullivan, Sr., Walter Sullivan, Jr., Thomas Dee, Richard Fanning, Izzy Dorosky and Brian Shabanowitz.

Dye tests were conducted on waste lines from the executive and employee lavatories and laundry water discharge troughs at 10:00 am. Corey Creek was inspected by Mr. Doroski and Mr. Shabanowitz at approx. 11:00 am and 2:00 pm. No evidence of a stream discharge was observed.

Two overflow hot water lines from the boiler units are presently being discharged to Corey Creek via pipes at the southeast corner of the building. Mr. Walter Sullivan, Sr. and Thomas Dee, Plant Maintenance Engineer, agreed to cease the discharge within seven days and recirculate the water on a permanent basis in thirty days. This will be addressed in Mr. Fanning's report detailing the proposed wastewater treatment scheme.

Area residents are concerned that the current work on the breached lagoon may affect the streamand stream bed. The writer called Conservation Officer Vinski at NYSDEC at 12:20 pm this date to request an inspection by his division.

The writer suggested that following completion of the work on the lagoons that flow to each unit be alternated either daily or weekly similar to a recharge bed operation. This will minimize excess pressure on the berms and will also expedite routine cleaning of bed bottoms.

see N.O.V letter dtd 12/20/82

G. J. Watt

Gordon Watt
GW/rt

SUFFOLK COUNTY DEPT. OF HEALTH SERVICES
UNIFORM COMPLAINT FIELD REPORT

Air Pollution ☐
Hazardous Material & Industrial Waste ☐
Internal Ventilation ☐
Sewage Treatment ☒
Assigned to Zone No. 3

SCDHS No. _____ Letter ☐
SPILL No. _____ Telephone ☑
DOT No. _____ Person ☐
Date 12/20/82 Time 8:30 am.

Referred by: _____ Phone _____
Complainant MR. DORAN Work- Sayville School Dist
Address 72 Wilson ST. (T.V.H.) Blue Point Phone 589-5100 x 209

Complaint Against Blue Point Laundry.
Address _____ (T.V.H.) _____ Phone _____

Nature of Request Burst open Friday 12/17 at 5 pm - Sand into creek. Dead fish + sand on peoples property. were using bulldozer. on Sat. + Sun.
RCV'D by H. EVANS Assigned to _____ Date _____

Persons Interviewed	Address	Phone
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	
Blue Pt. Laundry	Fork St Blue Pt	363 [illegible]
Phillis LaBarge	NY 56 Wilson	363-2774

Information Obtained from Interviewed Individuals:

12/20/82-ID- Mrs Gregory Told me that on 4:45 Friday (12/17/82) the burned lagoon Just West of her home gave away and a very large gush of laundry waste water came out onto her Yard. She said that the lagoon belonged to Blue Pt. laundry and it took about 30 minutes for the waste water to flow out of her and her neighbor's back Yards. She also said that on Friday night she called Blue Pt. Laundry and let them know about their waste water spill From their leaching lagoons and she called The Suffolk County Police and also let them know. On Saturday (12/18/82) she finally got a Phone number For the Suffolk County Health Dept and gave them a call about the spill. Mrs. Gregory Told me That she is concerned -

CONTINUED: INSPECTORS OBSERVATIONS OR INTERVIEWS

Continued Interviews

about the contaminated wet soil left behind after the laundry waste water receded from her and her neighbors yards. She feels that the health of her family may be effected from contact with the wet contaminated soil.

Mrs. LaBarge told me that she too called several agencies along with Mrs. Gregory on Friday (12/17) and Saturday (12/18). She also told me that she is concerned about the possible health dangers from the wet soil and sludge left behind from the waste water spill.

Mr. Sullivan Jr. told me that on Friday night (12/17) at around 7:00 PM he first learned about the leaching lagoon disaster and on Saturday (12/18) he had some bulldozers working within the collapsed bermed areas, rebuilding the walls of the 2 leaching lagoons. Mr. Sullivan Jr. told me that he thinks that some vandals caused the first berm wall to collapse by digging a ditch at the berm wall. Mr. Sullivan also told me that all the berm walls will be reconstructed using loam and clay within the next few days and that the sludge left on the yards of the people will be cleaned up by him.

12/20/82-ID-3:30 PM I went to Blue Point Laundry to see if I could do a dye test of the waste water leaving the laundry building to make sure all waste water is going into the leaching sumps. Mr. Sullivan Jr. told me that he must ask his lawyer and engineer if this is o.k.

12/21/82-ID-11:10 PM I went to do a dye test at Blue Point Laundry. Mr. Sullivan Jr. told me that he has not discussed the situation with his engineer yet and his lawyer is not sure about letting me in. I told Mr. Walter Sullivan Jr. that when he will let me in to do the dye test he can call me at 451-4631. I issued a violation to Mr. Sullivan for not letting me do the dye test.

Gordon Tomb

8-234: 2/82

SUFFOLK COUNTY DEPT. OF HEALTH SERVICES
UNIFORM COMPLAINT FIELD REPORT

Air Pollution ☐
Hazardous Material & Industrial Waste ☐
Internal Ventilation ☐
Sewage Treatment ☒
Assigned to Zone No. 3

SCDHS No. 82-69 Letter ☐
SPILL No. _____ Telephone ☒
DOT No. _____ Person ☐
Date 12/20/82 Time 10 OJT

Referred by: Ted Snyder. Phone _____
Complainant Pat Gregory
Address 44 Wilson St. (T.V.H.) Blue Point Phone 363-6651

Complaint Against Blue Point Laundry
Address _____ (T.V.H.) _____ Phone _____

Nature of Request Dryer Flowed into Creek & into her yard. She called Foley & Hamilton — Please give report on this to Ted Snyder. NYSDEC

RCV'D by H. EVANS Assigned to _____ Date _____

Persons Interviewed	Address	Phone

Information Obtained from Interviewed Individuals:

SUFFOLK COUNTY DEPT. OF HEALTH SERVICES
UNIFORM COMPLAINT FIELD REPORT

Air Pollution ☐
Hazardous Material & Industrial Waste ☒
Internal Ventilation ☐
Sewage Treatment ☐
Assigned to Zone No. 3

SCDHS No. _____ Letter ☐
SPILL No. 1982-159 Telephone ☒
DOT No. _____ Person ☐
Date 12/20/82 Time 12:00 noon

Referred by: _____ Phone _____
Complainant Patricia Gregory
Address 44 Wilson St. (T.V.H.) Blue Point Phone 363-6651

Complaint Against Blue Point Laundry
Address _____ (T.V.H.) Blue Point Phone _____

Nature of Request spill from sump onto adjacent property when two walls of sump broke

RCV'D by R. Turoff Assigned to D. Gobbi Date 12/20/82

Persons Interviewed	Address	Phone

Information Obtained from Interviewed Individuals:

Inspector's Observations 12/20/82 - IN - I SAW THAT 2 OF THE LEACHING LAGOONS FOR BLUE POINT LAUNDRY'S WASTE WATER DISCHARGE'S HAVE HAD THEIR EAST BERM WALLS COLLAPSE. I ALSO SEE THE THE WASTE WATER LEVEL WITHIN THE MOST WEST LAGOON PRIOR TO THE WALL COLLAPSE WAS ALMOST TO THE TOP OF THE EAST BERM WALL. APATENTLY WHEN THE MOST WEST LAGOON COMPLETELY FILLED UP WITH WASTE WATER IT MAY HAVE OVERFLOWED THE EAST BERM WALL CAUSING MUCH SOIL EROSION THERE BY CAUSING A COLLAPSE OF THE BERM WALL. THEN THIS VERY LARGE AMOUNT OF WASTE WATER FLOWED INTO THE EAST ADJACENT SMALLER LAGOON CAUSING IT TO OVER FLOW AND EVENTUALLY EMPTY INTO THE SMALL STREAM EAST OF ALL THE LEACHING LAGOONS. A BERM WALL COLLAPSE OF THE MOST WEST LAGOON JUST DUE TO THE VERY HIGH LEVEL OF THE WASTE WATER CAUSING A STRUCTURE COLLAPSE MUST ALSO BE CONSIDERED.

Name of Responsible Individuals	Address	Tel. No.
MR. WALTER SULLIVAN JR.	PARK ST, BLUE PT	363-6000

Inspector's Recommendation to Persons Concerned I TOLD MR. SULLIVAN JR. THAT HE MUST TAKE STEPS TO MINIMIZE ANY FUTURE LEACHING LAGOON DISASTERS.

Information Related by Inspector to Complainant MR. DORAN WAS TOLD OF WHAT HAPPENED AND WHAT ACTIONS WERE TAKEN BY OUR DEPARTMENT.

Sketch:

Inspectors Signature [illegible] Date 12/20/82

CONTINUED: INSPECTORS OBSERVATIONS OR INTERVIEWS

CONTINUED OBSERVATIONS

I ALSO NOTED THAT WHEN THE LAUNDRY WASTE WATER CAME GUSHING OUT OF THE BERM WALL THE WASTE WATER OVER FLOWED THE SMALL STREAM AND WENT ONTO THE BACK YARDS OF ABOUT 10 PEOPLE WHO LIVED JUST EAST OF BLUE POINT LAUNDRY AND THE STREAM. THE WASTE WATER DISASTER AT ITS PEAK WAS PROBABLY ABOUT 1-2 FEET DEEP ON THE PEOPLE'S YARDS AND FLOWED TO DISTANCES OF 30' TO 40' ON THE PEOPLES BACK YARDS. SOME BLACK AND GREY SOLIDS WERE LEFT BEHIND IN PATCHES ON THE PEOPLE'S YARDS AND A FEW DEAD FISH, TADPOLES AND EELS WERE DEPOSITED ON THE BACK YARDS ALONG WITH THE RESIDUE MOISTURE OF THE LAUNDRY WASTE WATER. THREE BACTERIA WATER SAMPLES WERE TAKEN AT DIFFERENT LOCATIONS WITHIN THE STREAM ALONG WITH 2 BACTERIA SOIL SAMPLES OF TWO OF THE PEOPLES BACK YARDS WITHIN THE CONTAMINATION AREA. NO SIGNIFICANT ODORS COULD BE NOTED AROUND THE CONTAMINATION AREA. I SAW THAT ALL PRESENT LAUNDRY WASTE WATER REMAINS FROM BLUE PT. LAUNDRY IS NOW FLOWING INTO THE ONLY UNEFFECTED LAGOON WITH NO APPARENT PROBLEMS. THE DEPTH OF THE WASTE WATER WITHIN THIS LAGOON IS NOT HALF FULL YET. I ISSUED A VIOLATION TO MR. WALTER SULLIVAN JR. FOR THE WASTE WATER SPILL AND NOT REPORTING IT WITHIN 2 HOURS.

12/21/82 SPOKE WITH MR. FANNING THIS AFTERNOON IN AN ATTEMPT DEC TO SCHEDULE A JOINT INSPECTION. HE INDICATED THAT HE WOULD DISCUSS MY REQUEST WITH COMPANY ATTORNEY (MR. FRITZ) AND THAT HE WOULD NOTIFY OUR OFFICE IF PERMISSION IS GRANTED

Walter Fowler

18-234: 2/82

CONTINUED: INSPECTORS OBSERVATIONS OR INTERVIEWS

2

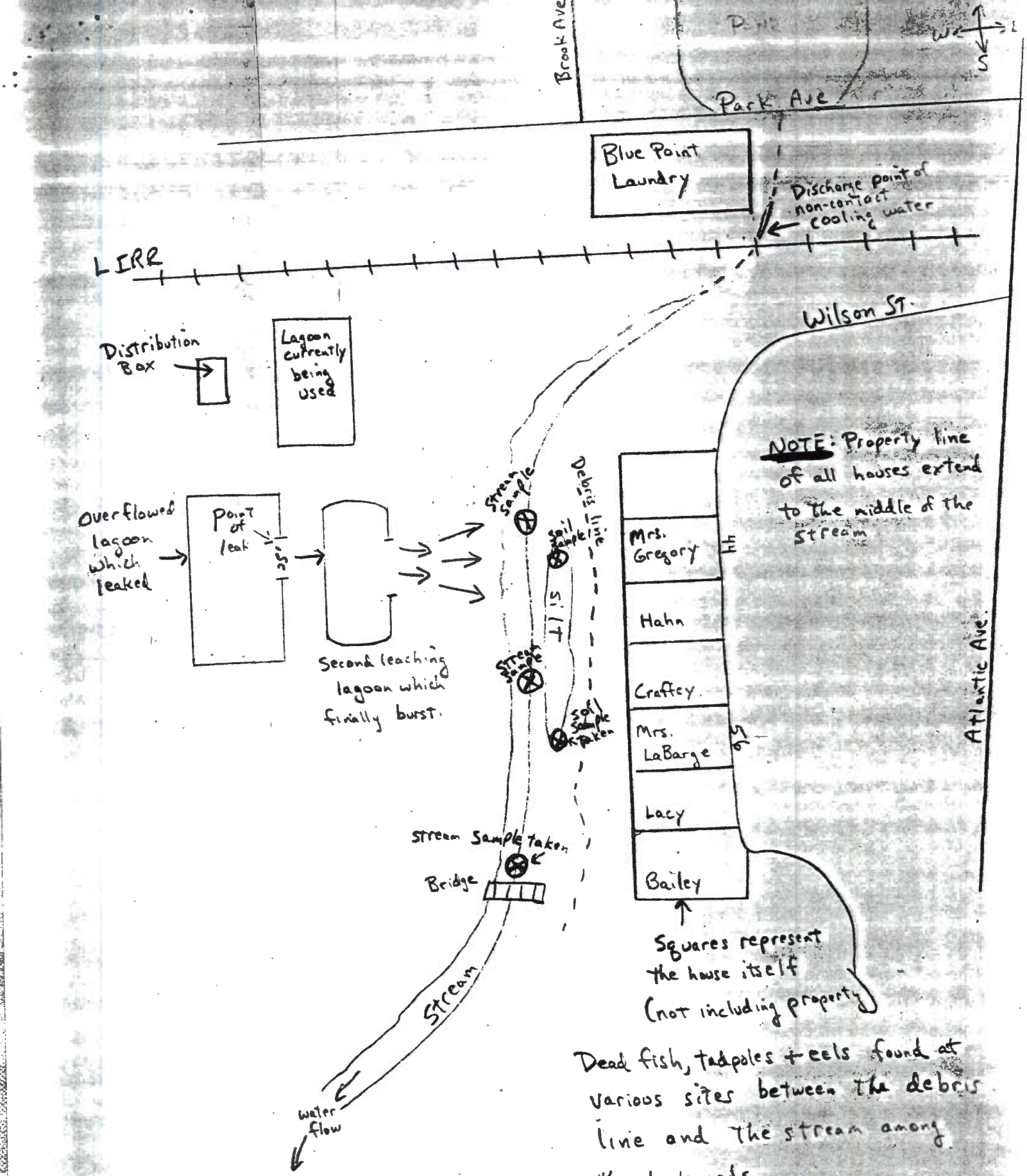
Continued Observations

11/23/84- ID- Along with Mr. Gordon Watt of our office I made a inspection of the laundry waste water flow and I did a dye test of Blue Point Laundry. At that time colored test dye was placed into the entire sanitary system and laundry waste water lines within the laundry building. The dye test showed that the laundry waste water flows only to the south leaching lagoons and that the sanitary system and laundry waste waters do not flow into the creek that is adjacent and east of the laundry. A inspection of the cellar laundry waste water piping was done by Mr Watt and I and it showed no pipe leading to the creek.

Repair rebuilding work on the lagoons was in progress at inspection time. A discharge of hot water from the boiler [illegible] flow and sump pit was found leading to the creek from Blue Pt Laundry and Mr. [illegible] of Blue Pt agreed to eliminate this [illegible] [illegible] days.

A reinspection of the creek down stream from Blue Point laundry showed no dye at [illegible] after the dye test in the morning.

—7—



Dead fish, tadpoles + eels found at various sites between the debris line and the stream among the backyards.

12/21/82 Brian Shahanan

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL HEALTH SERVICES
BUREAU OF ENVIRONMENTAL POLLUTION CONTROL

NOTICE OF VIOLATION

Issued to (Company) Blue Point Laundry Inc.

(address) Park St, Blue Pt, NY

delivered to Walter Sullivan Jr. (Assistant Manager)

On (date, time) December 21, 1982

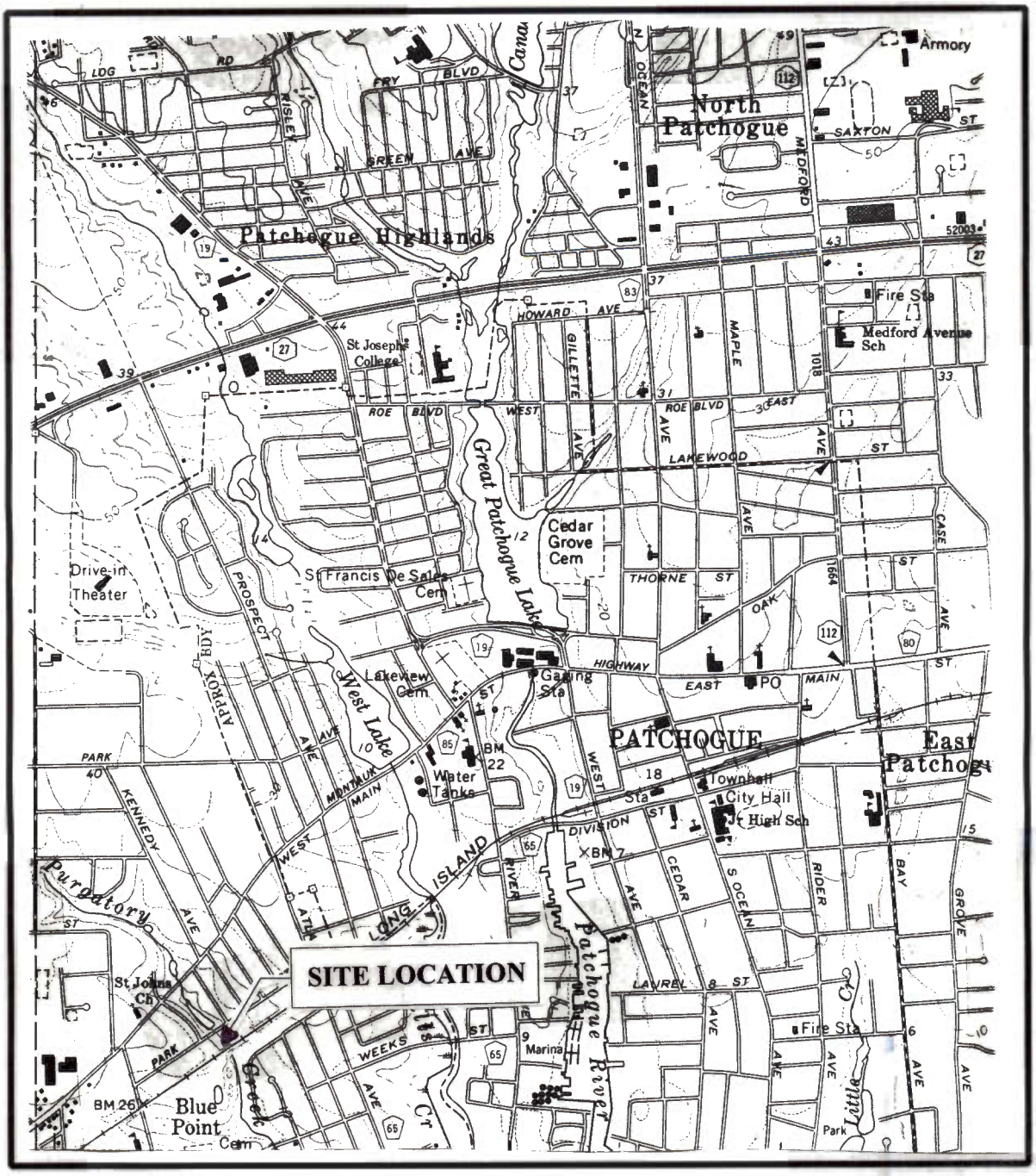
TAKE NOTICE THAT, on December 21 1982 at 11:50 in the (fore) (after) noon, at the location of Park St, Blue Point, Rear of building you were found to be in violation of Article 12 Section 1101 of the Suffolk County Sanitary Code in that:

Mr. Sullivan Jr. Did Not Permit me to Conduct a Waste Water Flow Direction Dye Test with in this building For Investigating Possible Pollution Sources From this business. (Done Later)

TAKE FURTHER NOTICE THAT, pursuant to Article 3 of the New York State Public Health Law, Article 2 of the Suffolk County Sanitary Code provides that any non-compliance or non-conformance with any provision of the Suffolk County Sanitary Code shall constitute a violation, punishable on conviction by a fine not exceeding $250 or by imprisonment for not exceeding 15 days or by both.

TAKE FURTHER NOTICE THAT, Article 2 of the Suffolk County Sanitary Code provides that any person violating its terms or a lawful order or regulation made thereunder, shall be subject to a civil penalty of not more than $500 per violation for each day such violation continues.

Issued by Isidore Dorosko



Blue Point Laundry, DEC Site-#1-52-186
1 Park Street
Blue Point, NY 11715
Suffolk County

PATCHOGUE QUADRANGLE

1981 EDITION

NORTH FORK BANK

The North Fork Bank & Trust Co.
Subsidiary of North Fork Bancorporation, Inc.
Home Office: Mattituck, New York 11952

July 31, 1986

State of New York
Department of Environmental Conservation
Albany, NY 12233

Re: Letter of Credit M-8654
$35,000.00
Blue Point Laundry, Inc.

Gentlemen:

By order of and for the account of Blue Point Laundry, Inc., Blue Point, NY, 11715, we hereby open our Irrevocable Letter of Credit No. M-8654 in your favor, for an amount not to exceed Thrity-five Thousand and 00/100 ($35,000.00) U.S. Dollars, payable to you against your presentation to us of your sight draft drawn on us accompanied by:

- a written statement puportedly signed by an official of the Department of Environmental Conservation of the State of New York, certifying that Blue Point Laundry, Inc. has failed to comply with Schedule A of the Consent Order dated April 12, 1986, of which is attached to and made a part of this Letter of Credit, which is the schedule of compliance for effluent limitations.

This Letter of Credit shall expire and be of no further force and effect upon the happening of either of the following events:

a) the presentation to us of a written statement signed by a duly authorized officer of the Department of Environmental Conservation of the State of New York certifying that Blue Point Laundry, Inc. has complied with Schedule A of the Consent Order dated April 12, 1986, or

b) in the event that no such written statement is presented to us prior to the 13th day of October, 1986, than this Letter of Credit shall expire and be of no further force and effective on and after October 13, 1986.

Drafts must state: "Drawn under The North Fork Bank and Trust Company Letter of Credit No. M-8654."

We hereby engage with you that documents presented in conformity with the terms of this credit will be duly honored by us.

Except so far as otherwise expressly stated, this documentary credit is subject to "Uniform Customs and Practice for Documentary Credits, 1983 revision, ICC Publication No. 400.

Very truly yours,

THE NORTH FORK BANK AND TRUST COMPANY

Paul M. Clark
Vice President

USGS **3 km SW of Patchogue, New York, United States** 08 Apr 1994

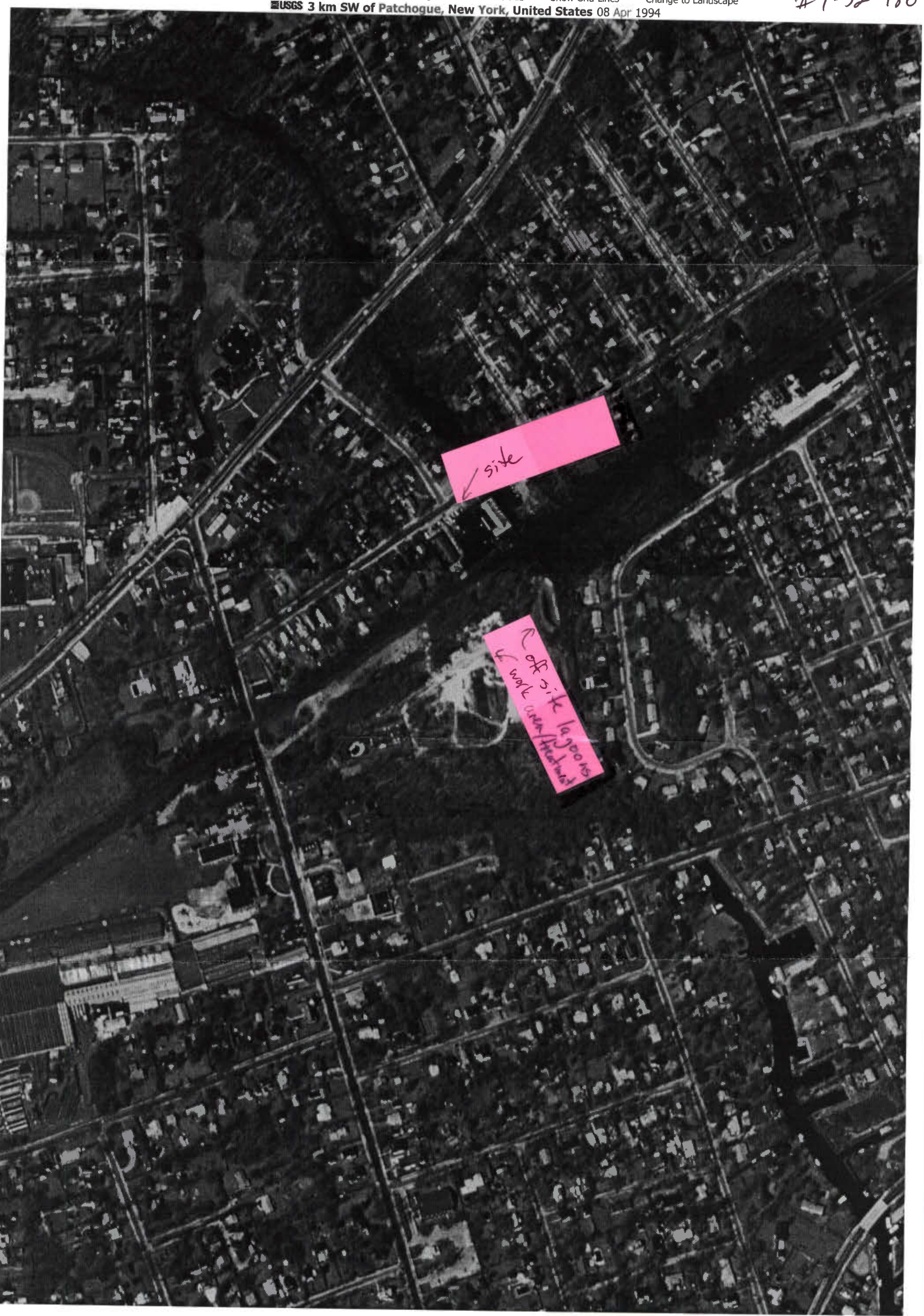


Image courtesy of the U.S. Geological Survey

April 1994 Blue Point

County Suffolk

Well No.

(on preliminary report)

State of New York

Department of Conservation

Division of Water Power and Control

COMPLETION REPORT—LONG ISLAND WELL

LOG	
Ground Surf., El. ....ft. above sea	
........ft.	
Top of Well	
96'	Bog (Salt Water)
150'	Gray Clay
161'	Black Clay
196'	Sandy Clay
280'	Black Clay
290'	Sandy Clay
301'	Sand & Lignite
338'	Fine Sand-Mica-Lignite

Owner Sayville Yacht Club

Address Boylan Lane-Blue Point, L.I., N.Y.

Location of well Boylan Lane-Blue Point, L.I., N.Y.

Depth of well below surface 338 feet

Depth to ground water from surface Flows feet

Casings:

Diameter 4 in. ....in. ....in. ....in.

Length 324'-5" ft. ....ft. ....ft. ....ft.

Sealing

Casings removed

Screens: Make Cook Openings 18 slot

Diameter 4 in. ....in. ....in. ....in.

Length 13'-7" ft. ....ft. ....ft. ....ft.

Depth to top from top of casing 324'-5" ft.

Pumping Test: Date........ Test or permanent pump?........

Duration of Test........days........hours

Maximum Discharge........gallons per minute

Static level prior to test........ft........in. below top of casing

Level during Max. Pumping........ft........in. below top of casing

Maximum Drawdown........ft.

Approx. time of return to normal level after cessation of pumping........hours........minutes

information received from owner 1/7/60. Pump installed on 5/3/60 W. Stuart

Pump Installed: PUMP BY OTHERS

Type Cent Make Fairbanks-Morse Model No. 5686

Motive power Elec Make " H.P. 1

Capacity 30 g.p.m. against 20 ft. of discharge head

No. bowls or stages 11 ; 30 ft. of total head

STATE OF NEW YORK
WATER RESOURCES
APR 25 1960
COMMISSION
RECEIVED

Drop Line:

Diameter 2 in.

Length 40 ft.

Suction Line:

Diameter 1 1/2 in.

Length 10 ft.

Use of water Sanitary & Drinking Water

Work started April 6, 1960 Completed April 15, 1960

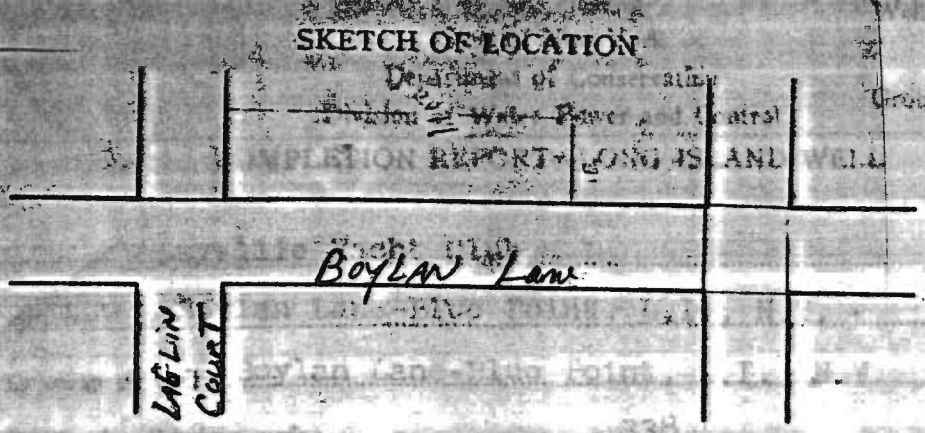
Date April 21, 1960 Driller Mathies Well & Pump Co., Inc.

License No. 153

Note: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job.

See Instructions as to Well Drillers' Licenses and Reports—pp. 5-7.

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing ground w distance from corner and front of lot.

Show North Point

DOG S-18653


EAST HOLBROOK
Canaan Lake
SUN-VET MALL
454
27
5
ST. JOSEPH'S COLLEGE
SANS SOUCI LAKES COUNTY NATURE PRESERVE
Sans Souci Lakes
GIRL SCOUTS CAMP EDEY
BAYPORT AERODROME
CHURCH ST
SYLVAN AV
MONTAUK HWY
78
ISLIP
BROOKHAVEN
EDENVILLE-PATCHOGUE RD
West Lake
Pine L.
Patchogue Lake
Patchogue River
PATCHOGUE
BLUE POINT
1705
1715
85
19
65
83
BAYPORT
N.Y.S. CONSERVATION AREA ACCESS BY PERMIT
Suffolk Boat Club
PATCHO
BAY
Blue Pt.
BAYPORT BEACH
ISLIP
BROOKHAVEN