REMEDIAL DESIGN WORK PLAN

93 MAIN STREET SITE
BINGHAMTON, BROOME COUNTY, NEW YORK
(SITE NO. 7-04-027)

WORK ASSIGNMENT NO. D003600-40

Prepared For

New York State Department of Environmental Conservation

SEPTEMBER 2004

DVIRKA AND BARTILUCCI
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

RLA/JOBS/93MAINSTREET2217(06/22/04)

Dvirka and Bartilucci
CONSULTING ENGINEERS

P.O. Box 56, 5879 Fisher Road, East Syracuse, New York 13057
315-437-1142 • Fax: 315-437-1282
e-mail: info@dbsyracuse.com

September 1, 2004

Principals
Nicholas J. Bartilucci, P.E. *President*
Henry J. Chlupsa, P.E. *Executive Vice President*
Thomas F. Maher, P.E. *Vice President*
Robert T. Burns, P.E. *Vice President*
Richard M. Walka *Vice President*
Steven A. Fangmann, P.E. *Vice President*
Theodore S. Pytlar, Jr. *Vice President*

Senior Associates
Anthony O. Conetta, P.E.
Dennis F. Koehler, P.E.
Joseph H. Marturano
Kenneth J. Pritchard, P.E.
Brian M. Veith, P.E.

Associates
Joseph F. Baader
Garrett M. Byrnes, P.E.
Rudolph F. Cannavale
Joseph A. Fioraliso, P.E.
Thomas P. Fox, P.G.
Gerald Gould, C.P.G.
William D. Merklin, P.E.
Michael Neuberger, P.E.
Edward J. Reilly
Richard P. Russell, P.E.
Charles J. Wachsmuth, P.E.
Kenneth P. Wenz, Jr., C.P.G.

Mr. Steven Karwiel
New York State Department of
Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7012

Re: New York State Superfund Standby Contract
Work Assignment No. D003600-40
93 Main Street Site 7-04-027
D&B No. 2217

Dear Steve:

Please find enclosed five copies of the September 2004 Project Management Work Plan for the 93 Main Street Site Remedial Design Work Assignment for your review and approval.

If you have any questions or comments, please contact me at (315) 437-1142.

Very truly yours,

Gerald Gould, CPG
Associate

GG/gg
Enclosures

cc: Mr. Kevin Sarnowicz, NYSDEC w/ enclosure

REMEDIAL DESIGN
PROJECT MANAGEMENT WORK PLAN

93 MAIN STREET SITE
SITE NO. 7-04-027
CITY OF BINGHAMTON
BROOME COUNTY, NEW YORK

WORK ASSIGNMENT NO. D003600-40

PREPARED FOR

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

BY

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
SYRACUSE, NEW YORK

SEPTEMBER 2004

REMEDIAL DESIGN
PROJECT MANAGEMENT WORK PLAN
93 MAIN STREET SITE
CITY OF BINGHAMTON, NEW YORK

TABLE OF CONTENTS

REMEDIAL DESIGN
PROJECT MANAGEMENT WORK PLAN
93 MAIN STREET SITE
CITY OF BINGHAMTON, NEW YORK

List of Figures

List of Tables

Section 1

1.0 INTRODUCTION

As part of New York State's program to investigate and remediate hazardous waste sites, the New York State Department of Environmental Conservation (NYSDEC) has issued a work assignment to Dvirka and Bartilucci Consulting Engineers under its Superfund Standby Contract with NYSDEC to provide design services for remediation of the 93 Main Street Site located in the City of Binghamton, Broome County, New York (see Figure 1-1). The 93 Main Street Site is a Class 2 New York State Superfund site, Registry No. 7-04-027. The scope of work for this work assignment includes:

- Performance of a pre-design study;
- Preparation of an engineering design report, and plans and specifications; and
- Assistance in citizen participation activities and construction pre-award services.

The work for this site is being performed with funds allocated under the New York State Superfund Program. This document, entitled "Remedial Design Project Management Work Plan, 93 Main Street Site" has been prepared in accordance with NYSDEC guidance, and includes a detailed description of tasks, schedule and budget for the project. The work plan also identifies key project milestones and presents the project team organizational structure.

1.0 INTRODUCTION

As part of New York State's program to investigate and remediate hazardous waste sites, the New York State Department of Environmental Conservation (NYSDEC) has issued a work assignment to Dvirka and Bartilucci Consulting Engineers under its Superfund Standby Contract with NYSDEC to provide design services for remediation of the 93 Main Street Site located in the City of Binghamton, Broome County, New York (see Figure 1-1). The 93 Main Street Site is a Class 2 New York State Superfund site, Registry No. 7-04-027. The scope of work for this work assignment includes:

- Performance of a pre-design study;
- Preparation of an engineering design report, and plans and specifications; and
- Assistance in citizen participation activities and construction pre-award services.

The work for this site is being performed with funds allocated under the New York State Superfund Program. This document, entitled "Remedial Design Project Management Work Plan, 93 Main Street Site" has been prepared in accordance with NYSDEC guidance, and includes a detailed description of tasks, schedule and budget for the project. The work plan also identifies key project milestones and presents the project team organizational structure.

Section 2

2.0 BACKGROUND INFORMATION

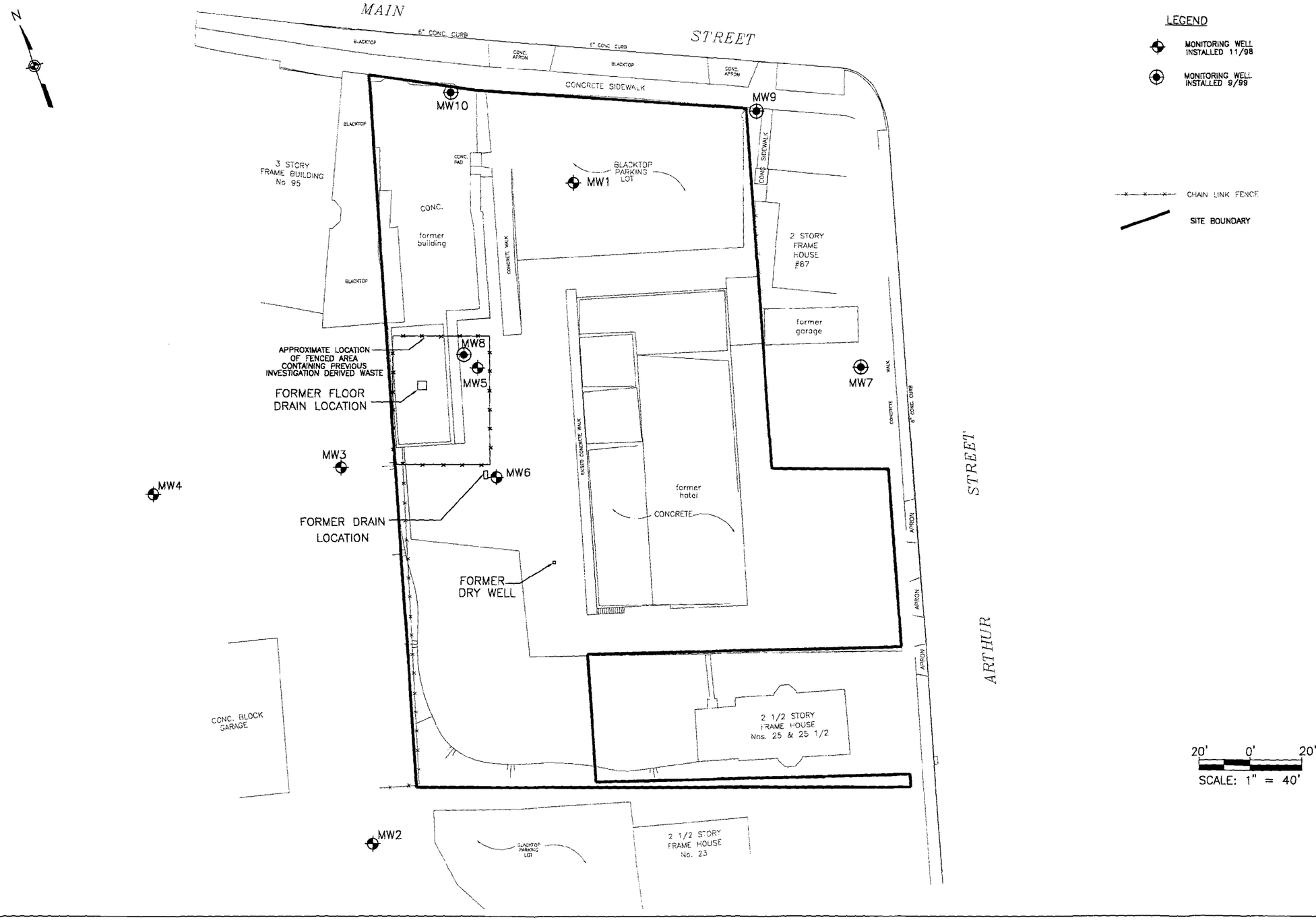
2.1 Site Location and Description

The 93 Main Street Site is located in a mixed residential and commercial neighborhood in the City of Binghamton, Broome County, New York. The site is located on southwest corner of Main Street and Arthur Street and is covered with the concrete slab remains of former buildings, a poorly maintained driveway and dirt parking lot, weeds, and a fenced area containing the soil and drummed remains of previous investigations (see Figure 2-1). Areas of surface and subsurface soil contamination identified in previous investigations are centered around a dry well located on the 89-91 Main Street parcel and two drains on the 93 Main Street parcel. The site and surrounding area are served by a municipal water supply system.

2.2 Site History

The following site history is a summary of information obtained from previous investigations including the January 2000 *Remedial Investigation Report*, prepared by NYSDEC, the February 2000 *Feasibility Study Report*, prepared by NYSDEC, the March 2000 *Record of Decision*, prepared by NYSDEC, and the *Literature Search,* prepared by Pan-American Environmental, Inc., dated November 1998. Figure 2-2 presents a summary of previous investigation sample locations and results.

The McMahon Brothers Pest Control Company operated at the 93 Main Street Site from the 1950's to the 1980's and is believed to be responsible for the release of pesticide and herbicide related contaminants at the site. The site was reportedly used as a pesticide/herbicide storage and handling location for the company. There were also allegations of spills having taken place at the site. Several structures have occupied the site including a building housing the McMahon Brothers Pest Control Company. A former apartment building and a partially completed motel building were demolished by the City of Binghamton in September 1999.



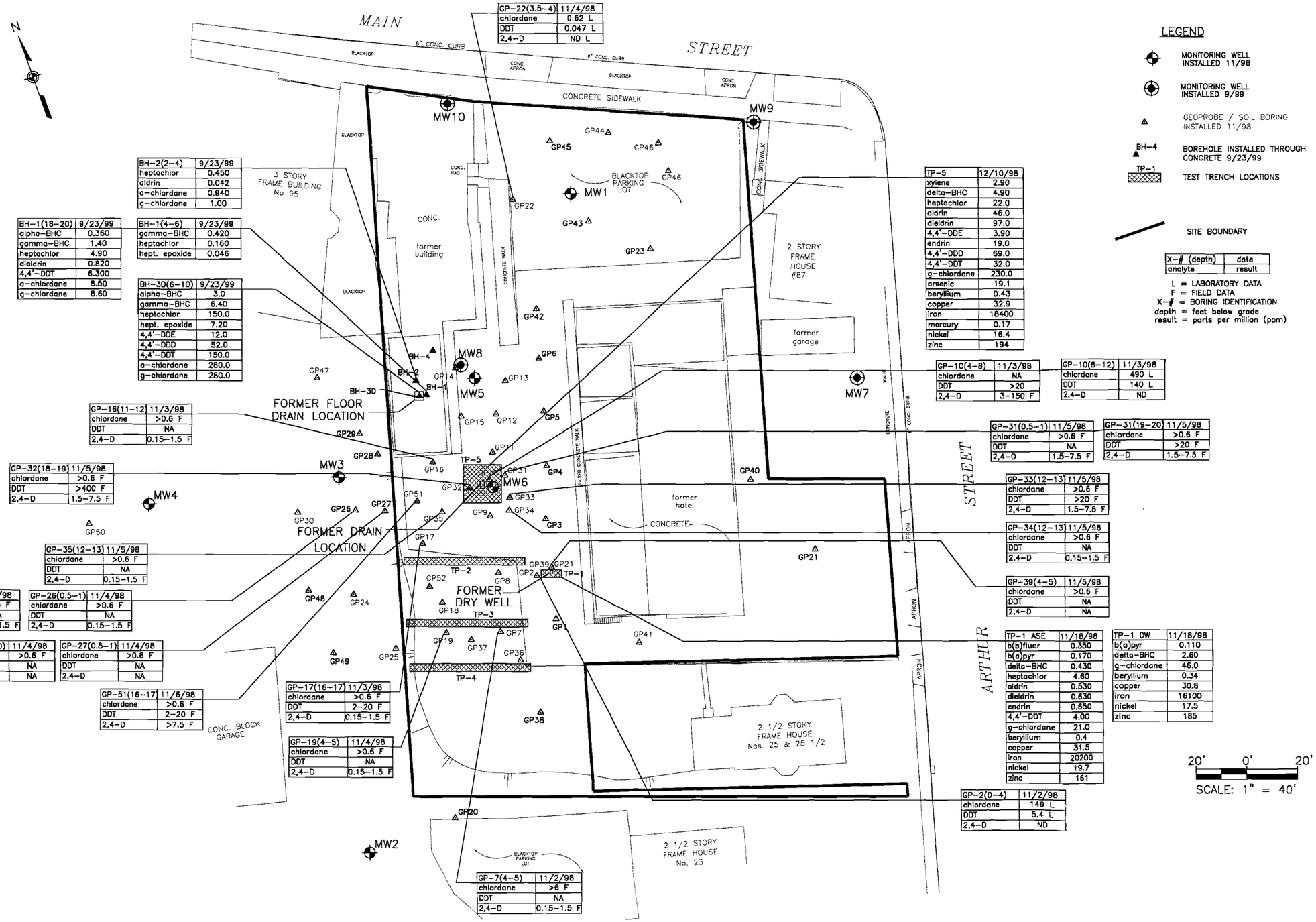
93 MAIN STREET SITE
BINGHAMTON, NEW YORK

SITE LAYOUT MAP

FIGURE 2-1

Dvirka and Bartilucci Consulting Engineers

25, 2004 SEP C:\2217\93 main sep base.dwg



GP-22(3.5-4)	11/4/98
chlordane	0.62 L
DDT	0.047 L
2,4-D	ND L

BH-2(2-4)	9/23/99
heptachlor	0.450
aldrin	0.042
a-chlordane	0.940
g-chlordane	1.00

BH-1(18-20)	9/23/99
alpha-BHC	0.360
gamma-BHC	1.40
heptachlor	4.90
dieldrin	0.820
4,4'-DDT	6.300
a-chlordane	8.50
g-chlordane	8.60

BH-1(4-6)	9/23/99
gamma-BHC	0.420
heptachlor	0.160
hept. epoxide	0.046

BH-3D(6-10)	9/23/99
alpha-BHC	3.0
gamma-BHC	6.40
heptachlor	150.0
hept. epoxide	7.20
4,4'-DDE	12.0
4,4'-DDD	52.0
4,4'-DDT	150.0
a-chlordane	280.0
g-chlordane	280.0

GP-16(11-12)	11/3/98
chlordane	>0.6 F
DDT	NA
2,4-D	0.15-1.5 F

GP-32(18-19)	11/5/98
chlordane	>0.6 F
DDT	>400 F
2,4-D	1.5-7.5 F

GP-35(12-13)	11/5/98
chlordane	>0.6 F
DDT	NA
2,4-D	0.15-1.5 F

GP-26(14-15)	11/4/98
chlordane	>0.6 F
DDT	NA
2,4-D	0.15-1.5 F

GP-26(0.5-1)	11/4/98
chlordane	>0.6 F
DDT	NA
2,4-D	0.15-1.5 F

GP-27(9-10)	11/4/98
chlordane	>0.6 F
DDT	NA
2,4-D	NA

GP-27(0.5-1)	11/4/98
chlordane	>0.6 F
DDT	NA
2,4-D	NA

GP-51(16-17)	11/6/98
chlordane	>0.6 F
DDT	2-20 F
2,4-D	>7.5 F

GP-17(16-17)	11/3/98
chlordane	>0.6 F
DDT	2-20 F
2,4-D	0.15-1.5 F

GP-19(4-5)	11/4/98
chlordane	>0.6 F
DDT	NA
2,4-D	0.15-1.5 F

GP-7(4-5)	11/2/98
chlordane	>6 F
DDT	NA
2,4-D	0.15-1.5 F

TP-5	12/10/98
xylene	2.90
delta-BHC	4.90
heptachlor	22.0
aldrin	46.0
dieldrin	97.0
4,4'-DDE	3.90
endrin	19.0
4,4'-DDD	69.0
4,4'-DDT	32.0
g-chlordane	230.0
arsenic	19.1
beryllium	0.43
copper	32.9
iron	18400
mercury	0.17
nickel	16.4
zinc	194

GP-10(4-8)	11/3/98
chlordane	NA
DDT	>20
2,4-D	3-150 F

GP-10(8-12)	11/3/98
chlordane	490 L
DDT	140 L
2,4-D	ND

GP-31(0.5-1)	11/5/98
chlordane	>0.6 F
DDT	NA
2,4-D	1.5-7.5 F

GP-31(19-20)	11/5/98
chlordane	>0.6 F
DDT	>20 F
2,4-D	1.5-7.5 F

GP-33(12-13)	11/5/98
chlordane	>0.6 F
DDT	>20 F
2,4-D	1.5-7.5 F

GP-34(12-13)	11/5/98
chlordane	>0.6 F
DDT	NA
2,4-D	0.15-1.5 F

GP-39(4-5)	11/5/98
chlordane	>0.6 F
DDT	NA
2,4-D	NA

TP-1 ASE	11/18/98
b(b)fluor	0.350
b(a)pyr	0.170
delta-BHC	0.430
heptachlor	4.60
aldrin	0.530
dieldrin	0.630
endrin	0.650
4,4'-DDT	4.00
g-chlordane	21.0
beryllium	0.4
copper	31.5
iron	20200
nickel	19.7
zinc	161

TP-1 DW	11/18/98
b(a)pyr	0.110
delta-BHC	2.60
g-chlordane	46.0
beryllium	0.34
copper	30.8
iron	16100
nickel	17.5
zinc	185

GP-2(0-4)	11/2/98
chlordane	149 L
DDT	5.4 L
2,4-D	ND

LEGEND

- MONITORING WELL INSTALLED 11/98
- MONITORING WELL INSTALLED 9/99
- GEOPROBE / SOIL BORING INSTALLED 11/98
- BH-4 BOREHOLE INSTALLED THROUGH CONCRETE 9/23/99
- TP-1 TEST TRENCH LOCATIONS
- SITE BOUNDARY

X-# (depth)	date
analyte	result

L = LABORATORY DATA
F = FIELD DATA
X-# = BORING IDENTIFICATION
depth = feet below grade
result = parts per million (ppm)

93 MAIN STREET SITE
BINGHAMTON, NEW YORK

PREVIOUS INVESTIGATION SAMPLING RESULTS

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

FIGURE 2-2

MAR 25, 2004 SEP C:\2217\93 main sep base.dwg

The NYSDEC investigated complaints that pesticide application equipment and drums containing pesticides were being stored at the site. There also were allegations of a drum being spilled behind the 93 Main Street building. In May 1989, NYSDEC sampled a drum that had been located on the 93 Main Street site, which was found to contain high concentrations of Silvex and 2,4-D. Herbicide spraying equipment was also discovered at the rear of the property.

In 1995, Gaynor Associates was hired by a financial institution to conduct a Phase II environmental audit for the 93 Main Street property. Soil samples were collected from outside the building at 93 Main Street. Analytical results showed elevated concentrations of herbicides and pesticides in the surface soil and beneath the asphalt parking area, including 2,4,5-T at 12,000 µg/kg, 2,4-D at 4,030 µg/kg and chlordane at 15,000 µg/kg.

During the investigation, Gaynor reported that a back area of the building was used for pesticide storage and handling. This area had since been converted to apartments, and the concrete floor covered with tile or carpet. During the Gaynor study, strong pesticide odors were noted in the apartments. All buildings on-site have since been demolished.

In 1995, the City of Binghamton entered into a Voluntary Cleanup Agreement (VCA) with the NYSDEC to perform a limited investigation of the site. This investigation focused on the rear of the 93 Main Street building and consisted of Geoprobe sampling of soil and groundwater. The results of this investigation revealed elevated concentrations of pesticides, such as chlordane, aldrin, dieldrin and 2,4,5-T in groundwater and soil at the site. Most of the pesticide concentrations significantly exceeded NYSDEC's groundwater standards. NYSDEC Recommended Soil Cleanup Objectives were also significantly exceeded. The presence of these pesticides at elevated levels indicate a threat to the area's sole source aquifer and is the basis for the site's Class 2 designation on the NYSDEC's Registry of Inactive Hazardous Waste Disposal Sites.

In January 2000, the NYSDEC completed a Remedial Investigation/Feasibility Study (RI/FS) to evaluate the contamination present at the site. The purpose of the RI was to define the nature and extent of contamination resulting from previous activities at the site.

The RI was conducted in two phases. The first phase was conducted between November 1998 and August 1999, and the second phase was conducted between September 1999 and November 1999. A report entitled "Remedial Investigation Report for the 93 Main Street Inactive Hazardous Waste Disposal Site" was prepared, which describes the field activities and findings of the RI.

The results of the RI indicated that the VOC contaminants of concern in soil and groundwater were xylene, ethylbenzene, tetrachloroethene, chlorobenzene, and 1,2-dichloroethane and the SVOC contaminants of concern were 1,2,4-trichlorobenzene, naphthalene, 2-methylnaphthalene, 2,4,5-trichlorophenol, 2,4-dichlorophenol, pentachlorophenol, phenol, 2-chlorophenol, 1,4-dichlorobenzene, 2-methylphenol and 4-nitrophenol, as well as the carcinogenic polyaromatic hydrocarbons (PAHs), benzo (a) anthracene, benzo (k) anthracene, chrysene, benzo (a) pyrene, bis (2-ethylhexyl) phthalate, benzo (b) fluoranthene and dibenzo (a,h) anthracene. The pesticide contaminants of concern identified were lindane, aldrin, dieldrin, 4,4'-DDT, 4,4-DDD, 4,4'-DDE, heptachlor, heptachlor epoxide, 2,4-D, chlordane, 4,4'-DDE, endrin, endosulfan I, endosulfan II, beta-BHC and delta BHC.

The remedial goals, as described in the March 2000 Record of decision, are to remediate subsurface soils to concentrations cited in NYSDEC Technical Administrative Guidance Memorandum (TAGM) 4046 "Determination of Soil Cleanup Objectives and Cleanup Levels" and groundwater to concentrations cited in NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations."

The elements of the selected remedy as contained in the March 2000 Record of Decision for the 93 Main Street Site are as follows:

- A remedial design program will be performed to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program. This will include batch and/or pilot testing of oxidizing agents. Any uncertainties identified during the RI/FS will be resolved.

- The area surrounding the dry well on the 89-91 Main Street property will be excavated to a depth of 6 feet. Confirmatory samples will be collected from the walls and floor of the excavation to insure that all contaminated soil above remedial objectives is removed. Contaminated soil will be treated on site by chemical oxidation and/or disposed of off-site as appropriate. The excavation will be backfilled with suitable fill material determined to be free of site contaminants.

- Infiltration galleries will be constructed in each of the remaining areas of concern, as necessary, to facilitate application of the oxidizing agent to the contaminated subsurface soil. It is anticipated that injection wells will also be necessary to properly distribute the oxidizing agent to the lower portion of the contaminated subsurface soil. The infiltration galleries will consist of an excavated area directly above the area of contaminated subsurface soil, which will be filled with gravel to allow for rapid infiltration of the oxidizing agent. Injection wells will be constructed with materials amenable to the oxidizing agent and capable of injecting the oxidizer under pressure, if necessary.

- Groundwater extraction wells will be constructed in order to create a zone of hydraulic containment large enough to collect any leachate produced during treatment of the contaminated soil, as well as the natural groundwater flow in the area being treated. The extraction wells will be connected to a treatment system, which will allow for the removal of residual contamination by additional oxidation, carbon treatment or a combination of the two. In the event that hydraulic containment cannot be achieved, alternative methods of groundwater control will be evaluated, such as physical containment (i.e., slurry wall, grout curtain, etc.).

- A long term monitoring program will be implemented for groundwater and leachate. Preparation of an operations, maintenance and monitoring plan, including long term monitoring will be required of the successful bidder in the plans and specifications.

Investigation derived waste (IDW) left on site from previous investigations is curren.ly stored in drums and soil piles inside a locked chain link fence. The IDW will be remediated or disposed as a part of the site remediation described in this Remedial Design Work Plan.

Section 3

3.0 SCOPE OF WORK

The services to be provided by Dvirka and Bartilucci Consulting Engineers (D&B) include preparation of a remedial design work plan (Task 1); performance of a pre-design study (Task 2); preparation of plans and specifications (Task 3); and pre-award services (Task 4).

3.1 Task 1 - Work Plan Preparation

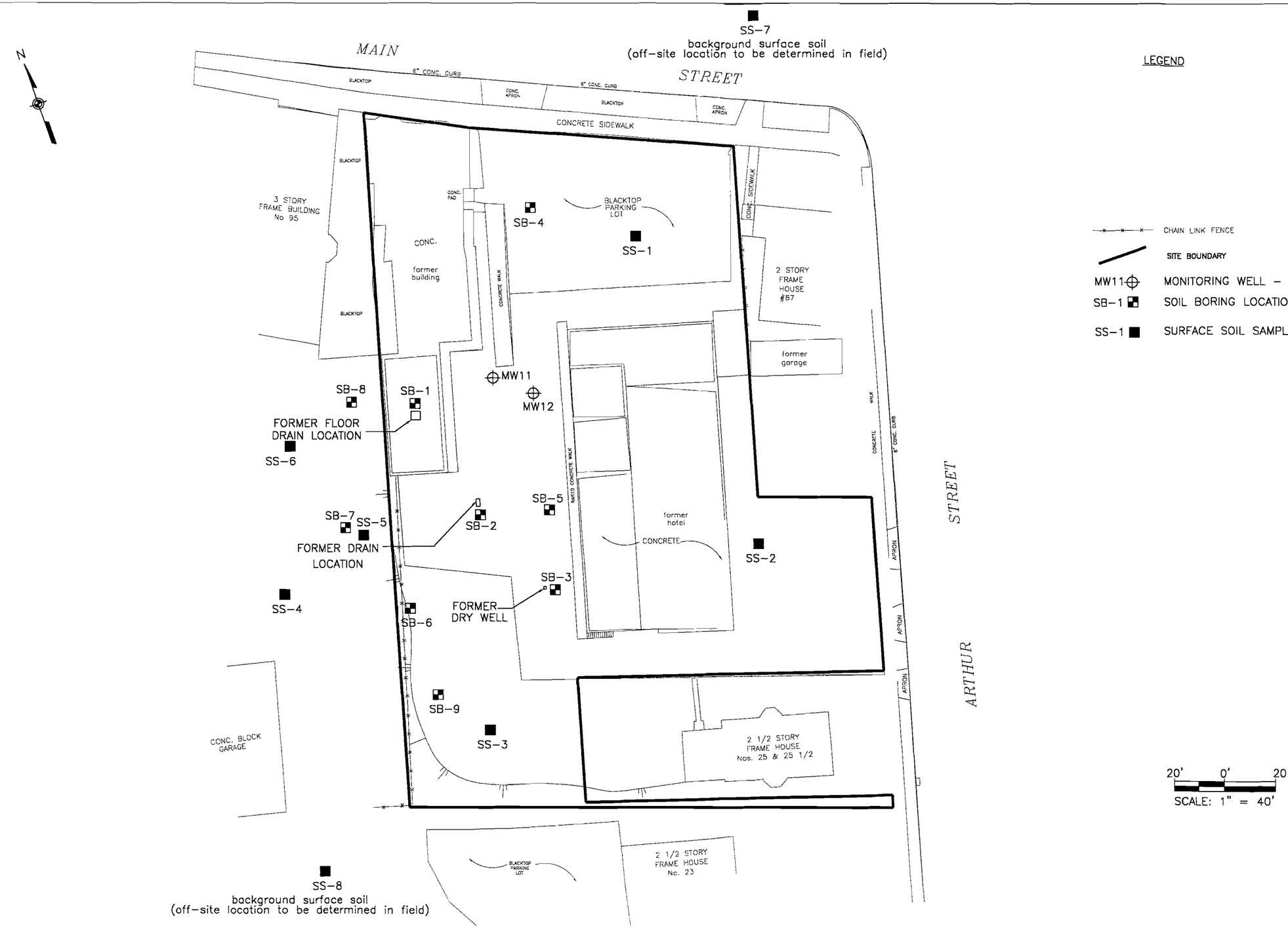
This task involves preparation of draft and final versions of this Project Management Work Plan (PMWP) for NYSDEC and New York State Department of Health (NYSDOH) review and comment. This task also includes participation in a preliminary scoping meeting at the site with representatives of the NYSDEC, review of site background information provided by NYSDEC and development of a scope of work for the pre-design study. The following reports will be reviewed to gain a thorough understanding of the site conditions and components of the selected design.

1. *Remedial Investigation Report*, prepared by NYSDEC, dated January 2000.
2. *Feasibility Study Report*, prepared by NYSDEC, dated February 2000.
3. *Record of Decision*, prepared by NYSDEC, dated March 2000.
4. *Literature Search,* prepared by Panamerican Environmental, Inc., dated November 1998.

3.2 Task 2 - Pre-Design Study

A pre-design study will be performed prior to preparation of the remedial design. The purpose of the pre-design study will be to provide site-specific information for the design of the remediation system, including the groundwater extraction and treatment system, and a chemical oxidation soil treatment system.

The pre-design field activities will consist of soil borings, monitoring well installations, water level monitoring, and groundwater and soil sampling and analysis. Figure 3-1 presents the study area and proposed sample locations. Table 3-1 summarizes samples to be collected and laboratory analyses. The following describes the pre-design study in detail.



LEGEND

- CHAIN LINK FENCE
- SITE BOUNDARY
- MW11 ⊕ MONITORING WELL – PROPOSED
- SB-1 ■ SOIL BORING LOCATION – PROPOSED
- SS-1 ■ SURFACE SOIL SAMPLE LOCATION – PROPOSED

20' 0' 20'
SCALE: 1" = 40'

93 MAIN STREET SITE
BINGHAMTON, NEW YORK

SAMPLE LOCATION MAP

FIGURE 3-1

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

MAR 25, 2004 SEP C:\2217\93 main sep base.dwg

Table 3-1
93 MAIN STREET SITE
PRE-DESIGN STUDY
SAMPLING MATRIX

Program Element	Environmental Media	Sample Type/Depth	Equipment	Number of Samples	Sample Analyses
Surface Soil Sampling	Surface Soil	Grab samples from surface soil (0 to 6 inches).	Disposable polyethylene or decontaminated stainless steel scoop.	8	SVOCs, Pesticides, PCBs, TAL Metals and Cyanide
Subsurface Soil Sampling	Subsurface Soil	Grab samples from borings.	Decontaminated split spoon or direct push sampler.	5	Grain size analysis
Subsurface Soil Sampling (Vertical delineation of contamination)	Subsurface Soil	Grab samples from borings at 4 ft intervals between 2 feet bgs and the water table (up to 4 per boring).	Decontaminated split spoon or direct push sampler.	36	TCL VOCs, SVOCs, Pesticides
Subsurface Soil Sampling (Soil characteristics for treatment design)	Subsurface Soil	Grab samples from borings.	Decontaminated split spoon or direct push sampler.	3	TAL Metals
Subsurface Soil Sampling (Soil disposal characteristics)	Subsurface Soil	Grab samples from borings.	Decontaminated split spoon or direct push sampler.	1	Toxicity Characteristic Leaching Procedure
Groundwater Sampling – 12 monitoring wells	Groundwater	At surface of water in well after purging well.	Disposable polyethylene bailer.	8	TCL VOCs, SVOCs, Pesticides, PCBs, TAL Metals and Cyanide
Groundwater Sampling – two samples from pumping test	Groundwater	Discharge point of piping during pumping test.	Disposable polyethylene bailer.	2	TCL VOCs, SVOCs, Pesticides, PCBs, TAL Metals and Cyanide, major anions and cations, TOC, DOC, TDS, TSS, pH
Investigation Derived Waste Sampling	Soil and Concrete Debris	Composite	Disposable polyethylene or decontaminated stainless steel scoop.	2	Toxicity Characteristic Leaching Procedure
Trip Blanks	Aqueous	Distilled water.	Sample supplied by laboratory.	2*	TCL VOCs
Matrix Spike/ Matrix Spike Duplicates	Aqueous	Groundwater (split of sample).	Sample container or disposable polyethylene bailer.	2**	TCL VOCs, SVOCs, Pesticides, PCBs, TAL Metals and Cyanide
Matrix Spike/ Matrix Spike Duplicates	Soil	Soil/sediment (split of sample).	Decontaminated split spoon or direct push sampler.	3**	TCL VOCs, SVOCs, Pesticides, PCBs, TAL Metals and Cyanide

*One trip blank will accompany each shipment of aqueous samples requiring volatile organic compound analysis.
**One MS/MSD for each media for every 20 samples collected or one every two weeks if fewer than 20 samples.
Note: No field blanks will be collected as per New York State Department of Environmental Conservation guidance.

3.2.1 Base Map Development

The base map to be utilized for this project was prepared by others and provided to D&B by the NYSDEC. Relevant features on the base map include former structures, roads, fences and existing monitoring wells. The base map will be used to plot all soil borings, monitoring wells and any other items of interest noted during the field activities.

3.2.2 Surface Soil Sampling

Results of previous investigations indicate that surface soil at the site is contaminated. In order to further delineate the nature and extent of surface soil contamination for the purpose of designing site remediation, eight surface soil samples (0-6 inches below ground surface) will be collected for laboratory analysis. The samples will be collected from three on-site locations, three off-site locations on an adjacent property, and two off-site background locations. All surface soil samples will be analyzed for Target Compound List (TCL) semivolatile organic compounds (SVOCs), TCL Pesticides/PCBs, Target Analyte List (TAL) metals and cyanide. Surface soil samples will be screened in the field for VOCs with a photoionization detector (PID).

3.2.3 Subsurface Soil Sampling

Nine soil borings will be constructed to collect overburden soil samples to determine subsurface soil quality, site geology and geotechnical characteristics. The soil borings will include one boring (SB-1) located near the former floor drain, one boring (SB-2) located in the vicinity of the former drain, one boring (SB-3) located near the former dry well and six borings (SB-4 through SB-9) in other areas of the site to be determined in the field. The soil borings will be advanced to approximately 25 feet below ground surface or 3 feet into the glacial till unit, whichever occurs first. Continuous split spoon samples will be collected from each boring, screened with a PID and logged for geotechnical characteristics, including standard penetration test results. Up to four samples from each boring will be collected for laboratory analyses at

four-foot intervals between two feet below ground surface and the water table to delineate the vertical extent of contamination.

Five subsurface soil samples (one sample from each of five borings) representing the saturated gravel and sand aquifer unit will be selected for grain size analyses. Grain size analyses results will be used to characterize the hydraulic properties of the saturated subsurface as they relate to the design of chemical oxidant injection or groundwater extraction systems.

Thirty-six subsurface soil samples (four samples from each boring) will be analyzed for TCL VOCs, TCL SVOCs, TCL Pesticides to delineate the vertical extent of contamination. Three subsurface soil samples will be collected from representative borings and analyzed for TAL metals for use in evaluating the design of soil treatment technologies.

One subsurface soil sample will be analyzed for Toxicity Characteristic Leaching Procedure parameters (TCLP). This sample will be collected from the depth and location of the most highly contaminated portion of the subsurface as determined by field observations and results of the subsurface soil analyses described above. Results of the analysis will be used to evaluate soil disposal options for site remediation.

3.2.4 Investigation Derived Waste

Cuttings generated from the construction of the boreholes will be handled in accordance with NYSDEC TAGM No. 4032 "Disposal of Drill Cuttings", dated November 1989. In general, this guidance document allows for on-site disposal of cuttings as long as certain criteria as to location and cover of cuttings are met. Soil cuttings will be staged inside the existing fenced enclosure for possible treatment during site remediation. A composite soil sample will be collected from investigation derived waste soil stored in drums from previous investigations and soil cuttings resulting from the pre-design investigation. An additional composite sample of concrete debris staged in the fenced enclosure will also be collected and analyzed. The two composite samples will be analyzed for TCLP parameters.

3.2.5 Monitoring Well Installation, Development and Hydraulic Conductivity Testing

Two overburden monitoring wells (MW-11 and MW-12) will be installed to further delineate the nature and extent of groundwater contamination and the physical properties of aquifer materials. The monitoring well locations will be north-northeast of the former drain location. The overburden wells are anticipated to be approximately 30 feet deep and will be drilled using hollow stems augers. The wells will be completed at the base of the gravel and sand aquifer and immediately on top of the glacial till unit. The wells will be constructed with 4-inch inside diameter (ID) schedule 40 PVC wire wrapped screen and 4-inch ID Schedule 40 PVC riser for possible use as groundwater extraction wells during the pumping test (see Section 3.2.7) or remediation. Drill cuttings will be stored inside the fenced enclosure and treated during remediation as described in Section 3.2.2.

Upon completion, the monitoring wells will be developed by surging and pumping. The monitoring wells will be developed until a turbidity of 50 nephelometric turbidity units (NTUs) is achieved or until field parameters, such as pH, specific conductance, turbidity and temperature, have stabilized. Water removed from the wells during well development will be contained in a 20,000-gallon frac tank to be located on the property. The contents of the frac tank will be removed following the pumping test and disposed off-site.

In-situ hydraulic conductivity values will be determined for each of the two new wells and ten existing wells by performing falling and rising head tests using the Bouwer and Rice method. Water displacement will be achieved by lowering a solid aluminum rod measuring 6 feet in length and 1-inch in diameter into the well. Changes in water level over time will be recorded using a pressure transducer and an electronic data logger. If the formation exhibits very slow recovery, the test may not be run until full recovery is achieved. Attempts will be made to allow the water to recover to at least two-thirds of the original level before stopping the test. All down-hole equipment will be decontaminated between wells.

3.2.6 Groundwater Elevation Monitoring and Sampling

Groundwater elevations in 12 monitoring wells, including the two new and ten existing monitoring wells, will be measured manually on a periodic basis during site activities. In addition, a rain gauge will be installed on-site to monitor precipitation. Groundwater and precipitation measurements will be coordinated, when possible, with other field activities, such as groundwater sampling, to minimize travel expenses. Water table and potentiometric surface maps will be developed based on synoptic water level measurements. These maps will be used to interpret groundwater flow direction under static conditions and to determine responses, if present, due to seasonal or precipitation variations.

Following the completion of monitoring wells, one round of groundwater samples will be collected. Eight of the 12 monitoring wells in the monitoring network will be selected for sampling based on field observations and the condition of the wells. The samples collected from the monitoring wells will be analyzed for TCL VOCs, TCL SVOCs, TCL pesticides/PCBs, TAL metals and cyanide.

3.2.7 Pumping Test

An aquifer test will be conducted by pumping water from monitoring well MW-11 to provide information to design the groundwater extraction and chemical oxidation injection system. The pumping test will be conducted for a period of 48 hours. Approximately 1 week prior to the test, selected on-site monitoring wells will be fitted with dedicated pressure transducers with data loggers (Trolls) to record static groundwater conditions. During the test, water levels in existing monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10 and MW-12 will be monitored using dedicated pressure transducers (e.g. Troll data loggers) and hand held water level measurement instruments (i.e. Solinst Water Level Indicator). Water levels will be measured to the nearest 0.01 feet at prescribed times during the pumping tests. Results of the pumping test will be used to determine the optimum extraction rates and configuration for the groundwater extraction system. Based on the aquifer

characteristics described in the RI, a flow rate of approximately 2 gallons per minute has been assumed and will produce approximately 6,000 gallons of contaminated water during the test. The pumped water will be temporarily stored in a frac tank to be located at the site. Following the pumping test, the water in the frac tank will be characterized for disposal. Possible disposal via the City sewer system or on-site injection will be evaluated for pumping test water, along with off-site disposal.

Two sets of groundwater samples will be collected from the pumping well. The sampling events will be conducted during different stages of the pumping test in order to evaluate groundwater quality variations under different pumping conditions. The results of the sampling will also be used to evaluate the contaminant concentrations during pumping and to design the groundwater treatment system. Groundwater samples will be analyzed for TCL VOCs, TCL SVOCs, TCL pesticides/PCBs, TAL metals, cyanide, major anions and cations, total organic carbon, dissolved organic carbon, total dissolved solids, total suspended solids and pH.

Pumping test data will be evaluated to determine aquifer characteristics, including aquifer continuity and hydraulic conductivity. The continuity, or cross connection between hydrogeologic units, will be evaluated by observing trends in water level elevations in the wells relative to the rate and time of water removal from the pumping well. The possible effects of precipitation, snowmelt or other hydrogeologic variations will be evaluated by observing local conditions and monitoring water levels in wells anticipated to be uninfluenced by the pumping well. Hydraulic conductivity of the hydrogeologic units will be calculated using time drawdown analyses and curve matching. A two-dimensional groundwater flow model will be prepared using site-specific data to evaluate and estimate the pumping well array necessary to inject and extract groundwater to maximize contaminant treatment and removal.

3.2.8 Surveying

A site map with topographic survey information was completed as part of previous investigations. An AutoCAD drawing of the previous survey has been obtained by D&B and

contains surveyed site locations and site topography at a contour interval of 1 foot. This AutoCAD drawing will serve as the base map.

A land survey will be conducted to locate sample points, nearest sewer manhole and invert elevation, electrical service location and public water supply location as well as other important site features identified in the pre-design investigation. Upon completion of fieldwork, a New York State-licensed surveyor will establish the locations and elevations of each of the new monitoring wells and other sampling points. Elevations of all well casings and the corresponding locations will be determined to within 0.01 feet based on the North America Vertical Datum (NAVD) 1988 and added to the base map.

3.2.9 Data Usability Summary Report

D&B's Quality Assurance/Quality Control (QA/QC) Officer will perform a data usability analysis. A Data Usability Summary Report (DUSR) will be prepared, which will determine the adequacy of the data for environmental assessment and design purposes.

3.2.10 Engineering Design Report

An Engineering Design Report will be prepared after the completion of the field activities. The Engineering Design Report will present the results of the pre-design study including documentation of field activities, notation of any deviations from the work plan, a presentation of the data collected, interpretation of the data, and conclusions and recommendations appropriate to the site, including further investigation, if necessary.

Additionally, the Engineering Design Report will present a description of the major elements of the project, the basis of design, and assumptions and uncertainties associated with the design effort. A draft Engineering Design Report will be submitted for NYSDEC review and comment. Included in this subtask is a telephone conference call with NYSDEC to review the draft report. The draft Engineering Design Report will be revised based on NYSDEC comments. Two copies of the final Engineering Design Report will be submitted to NYSDEC.

3.3 Task 3 – Bench Scale Treatability Studies and Pilot Study

Bench scale treatability studies and a pilot study will be conducted to determine the design parameters for the site. The studies will include a bench scale groundwater treatability study to evaluate chemical oxidation or carbon filtration for groundwater treatment, a bench scale soil treatability study for chemical oxidation, and a pilot study for chemical oxidation in soil.

A request for proposals (RFP) will be prepared to obtain price quotations for conducting the treatability studies and pilot study. In accordance with NYSDEC procurement procedures, proposals will be solicited from five vendors, if that number of qualified vendors can be identified. The RFP will be submitted to NYSDEC for review and approval prior to solicitation of proposals. A preliminary cost for the studies has been estimated at $45,000 and is included in the project budget (see Section 8). The vendor and actual cost will be determined using the RFP process after the pre-design investigation data becomes available for evaluation.

The RFP will require information from the vendors with respect to their experience in conducting treatability studies and pilot studies, and full-scale projects that would provide the data required to determine the applicability of the proposed remediation technologies to the 93 Main Street Site.

The RFP will be in letter format, which will include the following sections:

- Project Description
- Contaminant Concentrations and Soil and Groundwater Characteristics (based on existing data)
- Project Objectives
- Minimum Treatability Study and Pilot Study Requirements
- Minimum Sampling Requirements
- Parameters to be Analyzed
- QA/QC Requirements
- Reporting Requirements
- Project Schedule

Each vendor will also be provided with a copy of D&B's standard subcontractor agreement and the master agreement with NYSDEC. Once the proposals have been received, they will be reviewed and recommendations will be provided to NYSDEC with regard to the selected vendor. Upon NYSDEC approval of the recommendations, an agreement will be finalized with the selected vendor.

3.4 Task 4 – Plans and Specifications (Contract Documents)

Draft and final performance based specifications and drawings will be prepared for the purpose of competitively bidding the remedial construction in conformance with the July 2000 NYSDEC Standard Contract Documents. The specifications will conform to the selected remedy in the Record of Decision, and will conform with New York State laws, rules, regulations and guidelines. As noted below, this task includes optional items that may be conducted at the request of the NYSDEC.

3.4.1 30-Percent Submittal

The design documents will specify the requirements for groundwater and soil treatment, limits and depths of soil removal, remediation criteria, endpoint sampling requirements, fill material limits and specifications, specifications for site preparation/restoration and control of noise, odor, dust and soil erosion. Discharge management options for treated groundwater will be evaluated based on identifying a manhole to accept the discharge and preparing a letter to the sewer authority describing the proposed groundwater extraction and treatment system, estimated contaminant discharge concentrations and estimated discharge flow rate. The letter to the sewer authority, which will be provided in draft for review and comment by the Department prior to transmittal, will request approval for connection to an appropriate sewer manhole near the site. The 30-percent submittal will also contain contractor submittal requirements, including specifications for preparation of a site-specific sampling and analysis plan (SAP), quality assurance/quality control (QA/QC) plan, and a site-specific health and safety plan (HASP). In addition, the Contract Documents will contain a bid schedule, estimated quantities for each bid

item, contractor qualification and experience requirements, maximum time period for remediation and a cost estimate for the construction project.

Six copies of draft plans and specifications will be provided to NYSDEC for review and comment when the design is 30 percent complete. Supporting data, documentation and design calculations will be provided with the design documents in the form of a letter report. This information will include identification of potentially impacted property owners and parties with property rights, an updated tax property map, a preliminary list of temporary and permanent easements, rights-of-way and permits necessary to perform the remediation, and identification of all non-property permits with which the remediation must be in substantial compliance.

It should also be noted that D&B will verify that the Contract Documents contain specific requirements for submittal of a project schedule, MBE/WBE goals and bid forms. As stated above, the construction documents will be based upon the NYSDEC's July 2000 Standard Contract Documents.

3.4.2 60-Percent Submittal

The 60-percent submittal is an optional task as outlined in the work assignment. If requested by the NYSDEC, an additional draft of the plans and specifications will be submitted when the design is 60 percent complete. The 60-percent submittal will include a preliminary detailed construction cost estimate. The estimate will be prepared on a bid item basis as provided in the bid schedule in the Contract Documents in order to provide an estimate for each bid item. The estimated quantities on the bid schedule in the final Contract Documents will be utilized to provide a draft engineering cost estimate for the remedial construction project. Based upon the comments from the NYSDEC, D&B will revise and submit the final cost estimate to NYSDEC, which will be submitted with the final plans and specifications.

Three copies of the 60-percent submittal will be provided.

3.4.3 Final Plans and Specifications

NYSDEC comments will be incorporated into the final plans and specifications. The final plans and specifications will be sealed and signed by a professional engineer licensed to practice in New York State. In addition, a Limited Site Data Summary Report will be prepared. This report will describe site conditions and provide analytical data to assist bidders.

Six copies of the final design package and Limited Site Data Summary Report will be submitted to the NYSDEC for review, as well as an electronic copy in Portable Document Format (PDF). After approval of the final plans and specifications, 75 copies of the Contract Documents and the Limited Site Data Report will be provided to the NYSDEC.

3.5 Task 5 - Pre-award Services (Optional)

If requested by the NYSDEC, D&B will provide pre-award services in conjunction with the competitive bidding of the remedial construction project. The services under this task have been organized into four subtasks as described below. It is assumed that advertising for bids and distribution of bid documents and any addenda will be performed by the NYSDEC. D&B will support the NYSDEC in advertising the project.

3.5.1 Pre-Bid Conference

D&B will assist the NYSDEC in conducting the pre-bid conference and site visit with prospective bidders. D&B will respond to technical questions regarding the plans and specifications, and prepare and submit meeting minutes for the pre-bid conference to the NYSDEC. It is assumed that the pre-bid conference will be held at the site.

3.5.2 Addenda

D&B will prepare written responses to questions raised at the pre-bid conference, and any necessary addenda to the plans and specifications for the timely transmittal by the NYSDEC to

the prospective bidders. D&B will provide up to 75 copies of addenda to the NYSDEC for distribution to the bidders. For budget purposes, it is assumed that one addendum will be prepared.

3.5.3 Bid Review

Following the receipt of bids, D&B will perform a technical evaluation of the bids and prepare a tabulation of the bid prices that will be submitted to the NYSDEC. Additionally, as part of this subtask, D&B will review the apparent lowest bidder's pre-award submittals required by the Contract Documents.

3.5.4 Public Meeting

If requested by the NYSDEC, D&B will attend one public meeting to answer questions regarding the project design, construction techniques and project schedule. D&B will also prepare minutes of the meeting that will be provided to the NYSDEC.

Section 4

4.0 PROJECT MANAGEMENT

4.1 Project Schedule and Key Milestones

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

1. Submittal of Draft Project Management Work Plan
2. Submittal of Draft Engineering Design Report
3. Submittal of Preliminary Draft Plans and Specifications – 30 percent
4. Submittal of Draft Intermediate Plans and Specifications, and Draft Construction Cost Estimate – 60 percent
5. Submittal of Final Plans and Specifications, and Final Construction Cost Estimate

4.2 Project Management, Organization and Key Technical Personnel

Dvirka and Bartilucci Consulting Engineers will be the prime consultant responsible for this work assignment. The following subcontractors will be used on the project for the noted services:

- Parratt-Wolff, Inc. – Soil Boring, Monitoring Well Installation, Pumping Test
- YEC, Inc. (WBE) – Surveying
- Mitkem Corporation (MBE) – Sample Analyses
- Jamaica Blueprint Co., Inc. (WBE) – Reproduction
- To be Determined – Treatability Study
- Ecologic (WBE) – Pumping Test Assistance

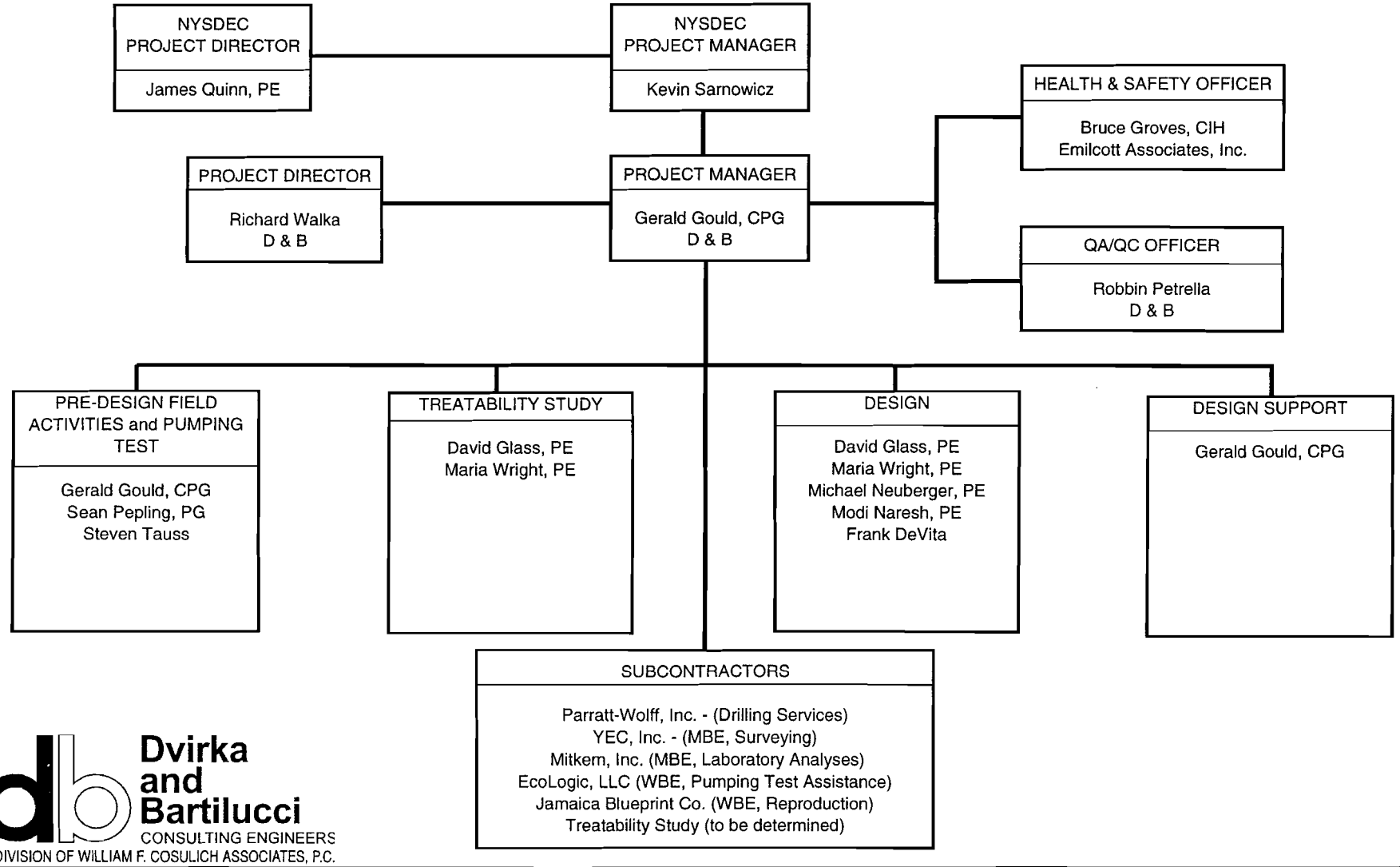
Figure 4-1
Project Schedule
Remedial Design
93 Main Street Site

Item	Action	Start Date	Duration (weeks)	Completion Date
TASK 1 - WORK PLAN DEVELOPMENT				
1	Issue Work Assignment		(time zero)	2/23/2004
2	Site Visit/Scoping Session		3	3/3/2004
3	Submission of Draft Project Management Work Plan		5	6/25/2004
4	NYSDEC Review		6	8/6/2004
5	Submission of Final Project Management Work Plan		4	9/3/2004
6	Notice to Proceed		1	9/10/2004
TASK 2 - PRE-DESIGN STUDY		9/10/2004		
7	Field Work		8	11/5/2004
8	Treatability Study		8	12/31/2004
9	Draft Pre-design Study Report		8	2/25/2005
10	NYSDEC Review		4	3/25/2005
TASK 3 - PLANS and SPECIFICATIONS		2/26/2005		
10	Preliminary Design (30% Design)		16	6/18/2005
11	Intermediate Design (60% Design)		9	8/20/2005
12	NYSDEC Review		4	9/17/2005
13	Final Design		5	10/22/2005
TASK 4 - PRE-AWARD SERVICES		10/22/2005	9	12/24/2005

FIGURE 4-2

PROJECT TEAM ORGANIZATION CHART

93 MAIN STREET SITE
REMEDIAL DESIGN
BINGHAMTON, NEW YORK



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

Section 5

5.0 SITE-SPECIFIC QUALITY ASSURANCE AND QUALITY CONTROL PLAN

Sample analyses for the 93 Main Street Site will be conducted in accordance with the NYSDEC Analytical Services Protocol (ASP). All other information that is not provided below regarding detailed sampling procedures and protocols, as well as other quality assurance and quality control (QA/QC) requirements, is provided in the draft D&B Corporate Generic Work Plan, dated February 1996.

- Fourteen surface soil samples will be collected from the site to determine surface soil quality.
- Eight subsurface soil samples will be collected from the site to determine subsurface soil quality.
- Five subsurface soil samples will be collected from the source areas to determine grain size of the site soils.
- Twelve groundwater samples will be collected from the site monitoring wells to determine groundwater quality.
- Two groundwater samples will be collected during the pumping test to determine groundwater quality.

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

- Two soil matrix spike/matrix spike duplicate samples will be collected.
- Two aqueous matrix spike/matrix spike duplicate samples will be collected.
- Two aqueous trip blank samples will be collected.

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

Table 5-1
93 MAIN STREET SITE
SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Number of Samples	Frequency	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Surface Soil	Grab	Surface Soil	Volatile Organic Compounds	14	1	Glass/2 oz/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Surface Soil	Semivolatile Organic Compounds	14	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for extraction, 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Surface Soil	Pesticide/PCBs	14	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for extraction, 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Surface Soil	TAL Metals	14	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	26 days for Hg and 6 months for all others	6/00 NYSDEC ASP Method USEPA SOW ILMO4.0
	Grab	Surface Soil	Cyanide	14	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	14 days	6/00 NYSDEC ASP Method 335.2
Soil Borings	Grab	Subsurface Soil	Grain Size	5	1	any/quart	none	not applicable	ASTM D 422
	Grab	Subsurface Soil	Volatile Organic Compounds	8	1	Glass/2 oz/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Subsurface Soil	Semivolatile Organic Compounds	8	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for extraction, 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Subsurface Soil	Pesticide/PCBs	8	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for extraction, 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Subsurface Soil	TAL Metals	8	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	26 days for Hg and 6 months for all others	6/00 NYSDEC ASP Method USEPA SOW ILMO4.0
	Grab	Subsurface Soil	Cyanide	8	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	14 days	6/00 NYSDEC ASP Method 335.2
Site/Study Area	Matrix Spike and Matrix Spike Duplicate	Soil	Volatile Organic Compounds	2**	1	Glass/2 oz/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Matrix Spike and Matrix Spike Duplicate	Soil	Semivolatile Organic Compounds	2**	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for extraction, 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Matrix Spike and Matrix Spike Duplicate	Soil	Pesticide/PCBs	2**	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	10 days for extraction, 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Matrix Spike and Matrix Spike Duplicate	Soil	TAL Metals	2**	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	26 days for Hg and 6 months for all others	6/00 NYSDEC ASP Method USEPA SOW ILMO4.0
	Matrix Spike and Matrix Spike Duplicate	Soil	Cyanide	2**	1	Glass/8 ozr/2 ICHEM 200 or equivalent	Cool to 4°C	14 days	6/00 NYSDEC ASP Method 335.2

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

**Two sets of MS/MSD based upon collection of 22 soil samples.

Table 5-1 (continued)
93 MAIN STREET SITE
SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Number of Samples	Frequency	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Monitoring Well (12 monitoring wells and 2 pump test)	Grab	Groundwater	Volatile Organic Compounds	14	1	Glass/40 ml/2 ICHEM 300 or equivalent	Cool to 4°C	7 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Groundwater	Semivolatile Organic Compounds	14	1	Glass/1 Liter/2 ICHEM 300 or equivalent	Cool to 4°C	5 days for extraction 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Groundwater	Pesticide/PCBs	14	1	Glass/1 liter/2 ICHEM 300 or equivalent	Cool to 4°C	5 days for extraction 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Grab	Groundwater	TAL Metals	14	1	Plastic/1 liter/1 ICHEM 300 or equivalent	HNO_3 to pH <2 Cool to 4°C	26 days for Hg analysis, 6 months for analysis of others	6/00 NYSDEC ASP Method USEPA SOW ILMO4.0
	Grab	Groundwater	Cyanide	14	1	Plastic/500 ml/1 ICHEM 300 or equivalent	NaOH to pH>12 Cool to 4°C	12 days for analysis	6/00 NYSDEC ASP Method 335.2
	Grab	Groundwater	Anions	2	1	Plastic/100 ml/1 ICHEM 300 or equivalent	Cool to 4°C	28 days for analysis	6/00 NYSDEC ASP Method 300.0
	Grab	Groundwater	Cations	2	1	Plastic/100 ml/1 ICHEM 300 or equivalent	HNO_3 to pH <2 Cool to 4°C	6 months for analysis	6/00 NYSDEC ASP Method 200.7
	Grab	Groundwater	Total Organic Carbon	2	1	Glass/40 ml/2 ICHEM 300 or equivalent	H_2SO_4 to pH <2 Cool to 4°C	7 days for analysis	6/00 NYSDEC ASP Method 415.1
	Grab	Groundwater	Dissolved Organic Carbon	2	1	Glass/40 ml/2 ICHEM 300 or equivalent	H_2SO_4 to pH <2 Cool to 4°C	7 days for analysis	6/00 NYSDEC ASP Method 415.1
	Grab	Groundwater	Total Dissolved Solids	2	1	Plastic/100 ml/1 ICHEM 300 or equivalent	Cool to 4°C	7 days for analysis	6/00 NYSDEC ASP Method 160.2
	Grab	Groundwater	Total Suspended Solids	2	1	Plastic/100 ml/1 ICHEM 300 or equivalent	Cool to 4°C	7 days for analysis	6/00 NYSDEC ASP Method 160.1

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

Table 5-1 (continued)
93 MAIN STREET SITE
SUMMARY OF MONITORING PARAMETERS

Sample Location	Sample Type	Sample Matrix	Sample Fraction	Number of Samples	Frequency	Container Type/Size/No.	Sample Preservation	Maximum Holding Time*	Analytical Method
Site/Study Area	Matrix Spike and Matrix Spike Duplicate	Groundwater	Volatile Organic Compounds	2**	1	Glass/40 ml/2 ICHEM 300 or equivalent	Cool to 4□C	7 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Matrix Spike and Matrix Spike Duplicate	Groundwater	Semivolatile Organic Compounds	2**	1	Glass/1 Liter/2 ICHEM 300 or equivalent	Cool to 4□C	5 days for extraction 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Matrix Spike and Matrix Spike Duplicate	Groundwater	Pesticide/PCBs	2**	1	Glass/1 liter/2 ICHEM 300 or equivalent	Cool to 4□C	5 days for extraction 40 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2
	Matrix Spike and Matrix Spike Duplicate	Groundwater	TAL Metals	2**	1	Plastic/1 liter/1 ICHEM 300 or equivalent	HNO_3 to pH <2 Cool to 4□C	26 days for Hg analysis, 6 months for analysis of others	6/00 NYSDEC ASP Method USEPA SOW ILMO4.0
	Matrix Spike and Matrix Spike Duplicate	Groundwater	Cyanide	2**	1	Plastic/500 ml/1 ICHEM 300 or equivalent	NaOH to pH>12 Cool to 4□C	12 days for analysis	6/00 NYSDEC ASP Method 335.2
Site/Study Area	Trip Blank	Water	Volatile Organics	2**	1	Glass, clear/ 40 mL/2 ICHEM 300 series or equivalent	Cool to 4□C***	7 days for analysis	6/00 NYSDEC ASP Method USEPA SOW OLMO4.2

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

**Two sets of MS/MSD and trip blanks based upon collection of groundwater samples during two phases of activities.

Section 6

6.0 SITE-SPECIFIC HEALTH AND SAFETY PLAN

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

Site Name:	93 Main Street Site
Address:	93 Main Street
	Binghamton, New York
Telephone:	
Dates of Field Investigations:	To Be Determined – Summer 2004
Entry Objectives:	Soil borings and groundwater pumping test for evaluation of site hydrogeologic characteristics

Site Organization Structure:	Name	Phone
Project Director:	R. Walka	516-364-9890
Project Manager:	G. Gould	315-437-1142
Health and Safety Officer (HSO)	B. Groves	973-765-0991
Field Operations Manager/Alternate HSO	S. Pepling	315-437-1142
Field Team Staff:	J. Kuhn	315-437-1142

Subcontractors:	YEC, Inc.	914-268-3203
	Parratt-Wolff, Inc.	315-437-1429
	MITKEM Corporation	401-732-4300
	Ecologic	315-655-8305

Medical Assistance:

Physician:	Dr. Ronald Miller
Address:	961 Canal Street
	Syracuse, NY 13210
Telephone:	315-478-1977

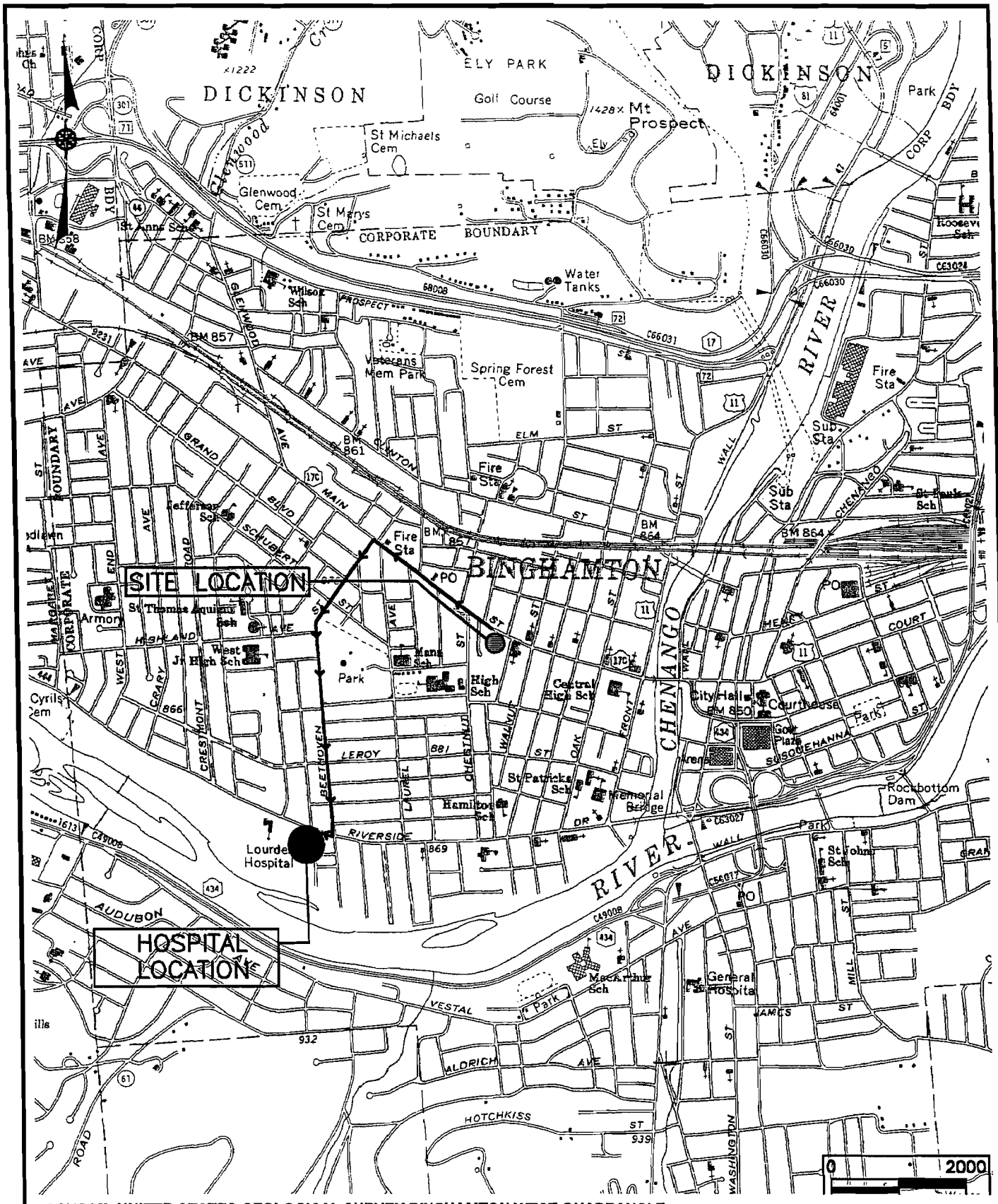
Name of Hospital:	Lourdes Hospital
Telephone:	607-798-5231
Directions:	From the site, turn left and proceed west on Main Street for about half a mile. Turn left (south) onto Beethoven Street and travel for about 0.75 miles. Turn right (west) onto Riverside Drive. Lourdes Hospital is on left.

Emergency Telephones:

Agent/Facility	Telephone	Emergency Number
EMS - Ambulance	911	911
Police Department	607-723-5321	911
Fire Department	607-772-7016	911
Hospital	607-798-5231	--
Poison Control Center	800-252-5655	--

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

NOT APPLICABLE



SOURCE: UNITED STATES GEOLOGICAL SURVEY BINGHAMTON WEST QUADRANGLE

93 MAIN STREET SITE REMEDIAL DESIGN
BINGHAMTON, NEW YORK

HOSPITAL ROUTE MAP

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

FIGURE 6-1

Section 7

7.0 COMMUNITY AIR MONITORING PLAN

Community air monitoring will be conducted by real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the work area. Based on existing environmental data and the work tasks to be performed in this work plan, the likelihood for the air quality of the general public being affected by Remedial Design activities is low. The plans and specifications portion of the remedial design will specifically address community air monitoring requirements during the implementation of remediation and require contractor bid packages to include a Community Air Monitoring Plan (CAMP).

The CAMP for this Remedial Design requires real-time monitoring for VOCs and particulates (i.e. dust) at the downwind perimeter of each designated work area when certain activities are in progress at the site. This CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e. off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities do not spread contamination off-site through the air.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Continual monitoring will be required for all ground intrusive activities and during the pre-design investigation activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of surface soil and sediment samples or the collection of groundwater samples from

existing monitoring wells. "Periodic" monitoring during sample collection will consist of taking a measurement upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a measurement prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continual monitoring may be required during sampling activities. Examples of situations requiring air monitoring include groundwater sampling at wells in or near a public roadway, in the midst of adjacent properties, or adjacent to a school or residence.

7.1 VOC Monitoring, Response Levels, and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e. the exclusion zone) on a continual basis or as otherwise specified. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings will be recorded and will be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

7.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continually at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for State (DEC and DOH) personnel to review.

Section 8

8.0 SCHEDULE 2.11s

Schedule 2.11 (a)
Summary of Work Assignment Price
93 Main Street Site
Summary
Work Assignment Number D003600-40

1.	Direct Salary Costs (Schedules 2.10 (a) and 2.11(b))			$77,352
2.	Indirect Costs (Schedule 2.10 (g))			$122,448
3.	Direct Non-Salary Costs (Schedules 2.11 (c)and (d))			$8,585
	Subcontract Costs			
	Cost-Plus-Fixed-Fee Subcontracts (Schedules 2.11(e))			
	Name of Subcontractor		Services To Be Performed	Subcontract Price
	A.	YEC, Inc. (MBE)	Survey new points	$2,394
	B.	YEC, Inc. (MBE)	Property Survey	$7,667
	C.	Ecologic (WBE)	Pumping Test Assistance	$4,480
	D.	To b e determined	Treatability study	$45,000
4.		Total Cost-Plus-Fixed-Fee Subcontracts		$59,541
	Unit Price Subcontracts (Schedules 2.11(f))			
	Name of Subcontractor		Services To Be Performed	Subcontract Price
	A.	Parratt-Wolff, Inc.	Borings and Well Installation	$18,980
	B.	MITKEM, Inc. (MBE)	Sample Analysis	$38,085
	C.	Environmental Products and Servic	Water Disposal	$8,490
	D.	Jamaica Blue Print Co. (WBE)	Reproduction	$8,832
5.		Total Unit Price Subcontracts		$74,387
6.		Subcontract Management Fee		$1,997
7.	Total Subcontract Costs (lines 4 + 5 + 6)			$135,925
8.	Fixed Fee (Schedule 2.10 (h))			$16,783
9.	Total Work Assignment Price (lines 1 + 2 + 3 + 7 +8)			$361,094

SCHEDULE 2.11 (b)
SUMMARY
93 Main Street Site
Work Assignment Number D003600-40

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	
as of July 1,2004	$67.58	$63.31	$55.03	$44.32	$37.24	$31.46	$28.55	$24.78	$19.77	
Task 1- Work Plan Develop.	10		14	70	86	0	0	10		190
Task 2- Pre-Design Field	4		16	92	238	0	64	22		436
Task 3- Treatability Study	0		4	64	24	0	40	24		156
Task 4- Plans and Specif.	12		164	260	22	0	608	84		1150
Task 5- Pre-Award Services	6		0	80	26	0	40	16		168
Subtotal 2003 Hours	14	0	34	226	348	0	104	56	0	782
Subtotal 2004 Hours	18	0	164	340	48	0	648	100	0	1318
Total Hours	32	0	198	566	396	0	752	156	0	2100
Total Direct Labor Cost	$2,135	$0	$10,842	$24,794	$14,371	$0	$21,384	$3,826	$0	$77,352

SCHEDULE 2.11 (b)-1
SUMMARY
93 Main Street Site
Work Assignment Number D003600-40

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	
as of July 1,2004	$67.58	$63.31	$55.03	$44.32	$37.24	$31.46	$28.55	$24.78	$19.77	
Task 1- Work Plan Develop.	2	0	0	3	2	0	0	4	0	11
Task 2- Pre-Design Field	0	0	0	6	4	0	0	14	0	24
Task 3- Treatability Study	0	0	0	0	0	0	0	14	0	14
Task 4- Plans and Specif.	1	0	0	0	0	0	0	18	0	19
Task 5- Pre-Award Services	0	0	0	0	0	0	0	14	0	14
Subtotal 2003 Hours	2	0	0	9	6	0	0	32	0	49
Subtotal 2004 Hours	1	0	0	0	0	0	0	32	0	33
Total Hours	3	0	0	9	6	0	0	64	0	82
Total Direct Labor Cost	$199	$0	$0	$387	$217	$0	$0	$1,563	$0	$2,366

Dvirka & Bartilucci Consulting Engineers
93 Main Street Site
Work Assignment Number D003600-40

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

ADMIN ACTIVITY	WORK PLAN DEVELOPMENT													
	Conflict of Interest Checks						Prepare 2.11 Schedules							
NSPE	IX	VIII	VII	VI	V	IV	VIII	VII	VI	V	IV	III	II	I
TASK 1	1.0								2.0					
TASK 2									2.0	2.0				
TASK 3														
TASK 4														
TASK 5														
TOTAL	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	2.0	0.0	0.0	0.0	0.0

ADMIN ACTIVITY	REVIEW WORK ASSIGNMENT (WA) PROGRESS																											
	Conduct Progress Reviews						Prepare Monthly Report & Update Schedules								MBE/WBE Activities								Program Management					
NSPE	VIII	VII	VI	V	IV	III	VIII	VII	VI	V	IV	III	II	I	VIII	VII	VI	V	IV	III	II	I	IX	VIII	VII	VI	V	IV
TASK 1			1.0							1.0								1.0					1.0					
TASK 2			2.0						2.0	1.0																		
TASK 3																												
TASK 4																												
TASK 5																												
TOTAL	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0

ADMIN ACTIVITY	CAP PREPARATION												MISCELLANEOUS															
	Prepare Monthly Cost Control Report & CAP								Oversee CAP				Update NSPE List								Equipment Use and Inventory				Word Processing and Report Preparation			
NSPE	VIII	VII	VI	V	IV	III	II	I	IX	VIII	VII	VI	VIII	VII	VI	V	IV	III	II	I	IV	III	II	I	IV	III	II	I
TASK 1							4																					
TASK 2							10									1											4	
TASK 3							10																				4	
TASK 4							14		1.0																		4	
TASK 5							14																					
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	52.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0

ADMIN ACTIVITY	Total Adm. LOE (hrs)								
NSPE	IX	VIII	VII	VI	V	IV	III	II	I
TASK 1	2	0	0	3	2	0	0	4	0
TASK 2	0	0	0	6	4	0	0	14	0
TASK 3	0	0	0	0	0	0	0	14	0
TASK 4	1	0	0	0	0	0	0	18	0
TASK 5	0	0	0	0	0	0	0	14	0
TOTAL	3	0	0	9	6	0	0	64	0

SCHEDULE 2.11 (C)
DIRECT NON-SALARY COSTS
93 Main Street Site
Work Assignment Number D003600-40

ITEM	MAXIMUM REIMBURSEMENT RATE	UNIT	ESTIMATED NUMBER OF UNITS	TOTAL ESTIMATED COSTS
IN-HOUSE				
Outside Services	$50.00	set	10	$500
Express Mail	$40.00	package	18	$720
Level D Safety Equipment	$14.00	($/person/day)	20	$280
Level C Safety Equipment	$40.00	($/person/day)	0	$0
Level B Safety Equipment	$50.00	($/person/day)	0	$0
Meals	$31.00	/day	15	$465
Lodging	$55.00	/day	15	$825
TRAVEL				
Air	$400.00	roundtrip	1	$400
Transportation (Personal Car)	$0.375	mile	5400	$2,025
Tolls	$20.00	week	0	$0
Car Rental	$415.00	week	2	$830
Gas	$100.00	week	2	$200
TOTAL DIRECT NON-SALARY COSTS				$6,245

Schedule 2.11 (c)
Direct Non-Salary Costs
93 Main Street Site
Work Assignment Number D003600-40

Summary

Item	Reimbursement Rate	Task 1 Est. No. of Units	Task 1 Total Cost	Task 2 Est. No. of Units	Task 2 Total Cost	Task 3 Est. No of Units	Task 3 Total Cost	Task 4 Est. No. of Units	Task 4 Total Cost	Task 5 Est. No. of Units	Task 5 Total Cost	Total Est. No. of Units	Total Estimated Cost
A. Travel													
1. Meals	$31 /day*		$0.00	15	$465.00		$0.00		$0.00		$0.00	15	$465.00
2. Lodging	$55 /day		$0.00	15	$825.00		$0.00		$0.00		$0.00	15	$825.00
3. Air Travel	400 /round trip	1	$400.00		$0.00		$0.00		$0.00		$0.00	1	$400.00
4. Transportation (Personal Car)	$0.375 /mile	400	$150.00	4000	$1,500.00		$0.00	1000	$375.00		$0.00	5,400	$2,025.00
5. Tolls	$20.00 /trip	0	$0.00	0	$0.00		$0.00	0	$0.00		$0.00	0	$0.00
6. Car Rental	$415.00 /week		$0.00	2	$830.00		$0.00		$0.00		$0.00	2	$830.00
7. Gas	$100.00 /week		$0.00	2	$200.00		$0.00		$0.00		$0.00	2	$200.00
												0	$0.00
Subtotal (Travel)			$550.00		$3,820.00		$0.00		$375.00		$0.00		$4,745.00
B. Miscellaneous (Expenses)													
1. Outside Services**	$50.00 /set	2	$100.00	4	$200.00		$0.00	4	$200.00		$0.00	10	$500.00
2. Express Mail	$40.00 /package	2	$80.00	4	$160.00		$0.00	12	$480.00		$0.00	18	$720.00
												0	$0.00
Subtotal (Misc. Expenses)			$180.00		$360.00		$0.00		$680.00		$0.00		$1,220.00
C. Personal Protective Equipment													
1. Level D Safety Equipment	$14.00 ($/person/day)		$0.00	20	$280.00		$0.00		$0.00		$0.00	20	$280.00
2. Level C Safety Equipment	$40.00 ($/person/day)		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
3. Level B Safety Equipment	$50.00 ($/person/day)		$0.00		$0.00		$0.00		$0.00		$0.00	0	$0.00
Subtotal (Protective Equipment)			$0.00		$280.00		$0.00		$0.00		$0.00		$280.00
TOTAL			$730.00		$4,460.00		$0.00		$1,055.00		$0.00		$6,245.00

Footnote:
In-house costs for computer services, postage, reproduction, printing,and telephone are not allowable as direct non-salary costs. These costsshould be included in the indirect cost pool used to determinethe indirect cost percentage for the engineer.

* Maximum allowable rate for Broome County, NY

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

SCHEDULE 2.11 (d) 1
EQUIPMENT PURCHASED UNDER THE CONTRACT
93 Main Street Site
Work Assignment Number D003600-40
Summary

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
EQUIPMENT CONSULTANT OWNED

93 Main Street Site
Work Assignment Number D003600-40
Summary

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
93 Main Street Site
Work Assignment Number D003600-40
Summary

ITEM	MAXIMUM REIMBURSEMENT RATE	TIME PERIOD	ESTIMATED USAGE (period of time)	ESTIMATED USAGE COST (Col. 2 X 3)
Horiba U-22 Water checker	$300	week	1	$300
Photoionization Detector	$200	week	2	$400
MiniTroll Data Logger	$225	week	0	$0
Persitaltic Pump	$75.00	week	0	$0
Air Sampling Pump	$50.00	week	0	$0
			Total	$700

SCHEDULE 2.11 (d) 4
EXPENDABLE SUPPLIES
93 Main Street Site
Work Assignment Number D003600-40
Summary

ITEM	ESTIMATED QUANTITY	UNITS	UNIT COST	TOTAL BUDGETED COST (COL. 2 X 3)
Cell Phone	2	months	$120.00	$240
Office supplies, field books, pens, pencils	1	each	$100.00	$100
Sampling Supplies- Ice, plastic bags, packing tape ...	5	each	$10.00	$50
Soil Implants	0	each	$100.00	$0
				$0
				$0
				$0
			TOTAL	$390

SCHEDULE 2.11 (D) 5
CONSUMABLE SUPPLIES
93 Main Street Site
Work Assignment Number D003600-40
Summary

ITEM	ESTIMATED QUANTITY	UNIT COST	TOTAL BUDGETED COST (COL. 2 X 3)
Miscellaneous Supplies	1	$250.00	250
Sieve Analyses	5	$200.00	$1,000
		TOTAL	$1,250

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

Work Assignment Number D003600-40

Name of Subcontractor: EcoLogic, LLC

Services to be Performed: Pumping Test Assistance at 93 Main St. Site, Binghamton, NY

Subcontract Price: $4,480.20

A. Direct Salary Costs

Professional Responsibility Level	Labor Classification	Average Reimbursement Rate ($/hr)	Maximum Reimbursement Rate ($/hr)	Estimated No. of Hours	Total Estimated Direct Salary Cost
Principal: Aquatic Sciences	VIII	$40.00	$40.00	2	$80.00
Environmental Scientist	IV	$24.00	$24.00	48	$1,152.00
Total Direct Salary Costs					$1,232.00

Footnotes:

1) These rates will be held firm until December 31, 2004

2) Reimbursement will be limited to the lesser of either the individual's actual hourly rate

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.

limited to the
maximum reimbursement rate of that labor category, the actual hourly rate paid, or the

6) The maximum rates in each labor category can be modified only by mutual agreement

B. Indirect Salary Costs

Indirect costs shall be paid on a percentage of direct salary costs incurred which shall not of 50 % or the actual rate calculated in accordance with 48 Federal Acquisition Regulation, whichever is lower.

Amount budgeted for indirect costs is $ 616.00

C. Maximum Reimbursement Rates for Direct Non-Salary Costs

Item	Maximum Reimbursement Rates (specify unit)	Est. No. of Units	Total Estimated Cost
Travel	$0.375 /mile	1000	$375.00
Meals	$31 /day	5	$155.00
Lodging	$55 /day	5	$275.00
MiniTroll Datalogger	$225 /week	6	$1,350.00
Expendable Field Supplies	$40 /day	5	$200.00
Total Direct Non-Salary Costs			$2,355.00

D. Fixed fee (15% of direct plus indirect labor costs) $ 277.20

Schedule 2.11 (e)
Cost Plus Fixed-Fee Subcontracts

93rd main Street Site Site

April 2, 2004

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
YEC, INC.	Certified Boundary Survey & CAD	$7,667.02

A. Direct Salary Costs

Professional Responsibility Level	Labor Classification	Average Reimbursement Rate ($/Hr.)		Maximum Reimbursement Rate ($/Hr.)		Estimated Number of Hours	Total Estimated Direct Salary Cost ($)
Principal	VIII	2004	59.42	2004	64.19	0	0.00
Senior Geologist/Scientist/ Engineer/ Licensed Surveyor	V	2004	39.29	2004	43.22	40	1,571.60
Staff Geologist/ Scientist/Engineer	IV	2004	34.16	2004	37.57	0	0.00
Staff Geologist/ Scientist/Engineer/CAD Operator	III	2004	29.64	2004	32.89	6	177.84
Senior Technician/Staff Engineer/Scientist/Geologist	II	2004	21.92	2004	24.57	24	526.08
Technician/Draftsperson	I	2004	19.86	2004	22.26	24	476.64
						Total Direct Salary Costs:	2,752.16

B. Indirect Costs - 117% of direct salary cost

Indirect Costs: 3,220.03

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

Item	Maxium Reimbursement Rate	Estimated No. of Units	
Mileage	0.34 /mile	400 miles	136.00
Tolls	10.00 /trip	1 trips	10.00
Per Diem	92.00 Overnight	4 Man-Days	368.00
CAD Equipment Costs	15.00 /hr	6 hrs	90.00
Survey Equipment Rental	65.00 day	3 day	195.00
		Total Direct Non Salary Costs:	799.00

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

Fixed Fee: 895.83

* An approximate boundary survey will be conducted instead a certified boundary survey

FROM : FAX NO. : Apr. 02 2004 12:17PM P3

Schedule 2.11 (e)
Cost Plus Fixed-Fee Subcontracts

93rd main Street Site Site

April 2, 2004

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
YEC, INC.	Wells & Borings Survey & CAD	$2,393.87

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	2004	59.42	2004	64.19	0	0.00
Senior Geologist/Scientist/ Engineer/ Licensed Surveyor	V	2004	39.29	2004	43.22	8	314.32
Staff Geologist/ Scientist/Engineer	IV	2004	34.16	2004	37.57	0	0.00
Staff Geologist/ Scientist/Engineer/CAD Operator	III	2004	29.64	2004	32.89	4	118.56
Senior Technician/Staff Engineer/Scientist/Geologist	II	2004	21.92	2004	24.57	10	219.20
Technician/Draftsperson	I	2004	19.86	2004	22.26	10	198.60
					Total Direct Salary Costs:		850.68

B. Indirect Costs - 117% of direct salary cost

Indirect Costs: 995.30

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

Item	Maxium Reimbursement Rate	Estimated No. of Units	
Mileage	0.34 /mile	400 miles	136.00
Tolls	10.00 /trip	1 trips	10.00
Per Diem	92.00 Overnight	0 Man-Days	0.00
CAD Equipment Costs	15.00 /hr	4 hrs	60.00
Survey Equipment Rental	65.00 day	1 day	65.00
		Total Direct Non Salary Costs:	271.00

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

Fixed Fee: 276.90

* An approximate boundary survey will be conducted instead a certified boundary survey

ITEM DESCRIPTION	UNIT	QUANTITY	Parratt-Wolff, Inc.		Nothnagle Drilling, Inc.		Uni-Tech Drilling Company, Inc.		Delta Well and Pump Company, Inc.	
			UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
1. A. MOBILIZATION/DEMOBILIZATION,INCLUDING S UP,SITEBREAKDOWN, CLEANUP,REPAIR, INITI FINAL EQUIPMENTDECONTAMINATION, TRAVEL,LODGING, MEALSAND LABOR FOR SITE RESTORATION.		2	$400	$800	$0	$0	$1,800	$3,600	$5,000	$10,000
B. CONSTRUCTION AND REMOVAL OF DECON PA	Lump Sum	1	400	400	850	850	425	425	800	800
C. WELL/BORING SET-UP	Per Well/Borin	11	200	2,200	100	1,100	200	2,200	300	3,300
2 DRILLING TECHNIQUES										
2A. HOLLOW STEM AUGER										
(1) 0-50 FEET IN DEPTH										
A. 2.25- In. ID HSA	Lineal Foot		12	0	10	0	12	0	17	0
B. 3.25- In. ID HSA	Lineal Foot	225	12	2,700	10	2,250	14	3,150	17	3,825
C. 4.25- In. ID HSA	Lineal Foot		13	0	12	0	14	0	18	0
D. 6.25- In. ID HSA	Lineal Foot	60	16	960	14	840	16	960	20	1,200
E. 8.25- In. ID HSA	Lineal Foot		24	0	24	0	18	0	50	0
(2) 50-100 FEET IN DEPTH										
A. 3.25- In. ID HSA	Lineal Foot		13	0	12	0	14	0	17	0
B. 4.25- In. ID HSA	Lineal Foot		15	0	14	0	14	0	17	0
C. 6.25- In. ID HSA	Lineal Foot		20	0	16	0	17	0	21	0
D. 8.25- In. ID HSA	Lineal Foot		NA	0	28	0	20	0	60	0
(3) 100-200 FEET IN DEPTH										
A. 3.25- In. ID HSA	Lineal Foot		NA	0	16	0	18	0	19	0
B. 4.25- In. ID HSA	Lineal Foot		NA	0	18	0	22	0	20	0
C. 6.25- In. ID HSA	Lineal Foot		NA	0	20	0	26	0	30	0
2B CABLE TOOL- Flush Joint or Coupled Casing										
(1) 0-50 FEET IN DEPTH										
A. 4-INCH ID CASING	Lineal Foot		25	0	15	0	20	0	NA	0
B. 6-INCH IDCASING	Lineal Foot		30	0	20	0	27	0	NA	0
C. 8-INCH ID CASING	Lineal Foot		50	0	28	0	30	0	NA	0
(2) 50-100 FEET IN DEPTH										
A. 4-INCH ID CASING	Lineal Foot		35	0	16	0	20	0	NA	0
B. 6-INCH ID CASING	Lineal Foot		45	0	22	0	27	0	NA	0
C. 8-INCH ID CASING	Lineal Foot		NA	0	30	0	30	0	NA	0
(3) 100-200 FEET IN DEPTH										
A. 4-INCH ID CASING	Lineal Foot		60	0	20	0	20	0	NA	0
B. 6-INCH ID CASING	Lineal Foot		NA	0	28	0	27	0	NA	0
C. 8-INCH ID CASING	Lineal Foot		NA	0	42	0	30	0	NA	0
(4) GREATER THAN 200 FEET IN DEPTH										
A. 4-INCH ID CASING	Lineal Foot		NA	0	30	0	25	0	NA	0
B. 6-INCH ID CASING	Lineal Foot		NA	0	40	0	32	0	NA	0
C. 8-INCH ID CASING	Lineal Foot		NA	0	60	0	35	0	NA	0
2C SPIN TEMPORARY FLUSH JOINT CASTING										
(1) 0-50 FEET IN DEPTH										
A. 4-INCH ID CASING	Lineal Foot		30	0	15	0	35	0	25	0
B. 6-INCH ID CASING	Lineal Foot		40	0	20	0	65	0	NA	0
C. 8-INCH ID CASING	Lineal Foot		60	0	28	0	72	0	NA	0
(2) 50-100 FEET IN DEPTH										
A. 4-INCH ID CASING	Lineal Foot		40	0	16	0	35	0	25	0
B. 6-INCH ID CASING	Lineal Foot		50	0	22	0	65	0	NA	0
(3) 100-200 FEET IN DEPTH										
A. 4-INCH ID CASING	Lineal Foot		60	0	20	0	40	0	27	0
B. 6-INCH ID CASING	Lineal Foot		NA	0	28	0	70	0	NA	0

ITEM DESCRIPTION	UNIT	QUANTITY	Parratt-Wolff, Inc.		Nothnagle Drilling, Inc.		Uni-Tech Drilling Company, Inc.		Delta Well and Pump Company, Inc.	
			UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
2D. MUD ROTARY										
(1) 0-50 FEET IN DEPTH										
A. 4-INCH DIAMETER BIT	Lineal Foot		30	0	16	0	12	0	NA	0
B. 6-INCH DIAMETER BIT	Lineal Foot		40	0	20	0	13	0	50	0
C. 8-INCH DIAMETER BIT	Lineal Foot		60	0	28	0	15	0	55	0
D. 10-INCH DIAMETER BIT	Lineal Foot		80	0	35	0	20	0	57	0
(2) 50-100 FEET IN DEPTH										
A. 4-INCH DIAMETER BIT	Lineal Foot		35	0	18	0	12	0	NA	0
B. 6-INCH DIAMETER BIT	Lineal Foot		45	0	24	0	13	0	50	0
C. 8-INCH DIAMETER BIT	Lineal Foot		65	0	32	0	15	0	55	0
D. 10-INCH DIAMETER BIT	Lineal Foot		90	0	40	0	22	0	57	0
(3) 100-200 FEET IN DEPTH										
A. 4-INCH DIAMETER BIT	Lineal Foot		35	0	20	0	14	0	NA	0
B. 6-INCH DIAMETER BIT	Lineal Foot		45	0	26	0	16	0	45	0
C. 8-INCH DIAMETER BIT	Lineal Foot		65	0	34	0	18	0	50	0
D. 10-INCH DIAMETER BIT	Lineal Foot		90	0	42	0	28	0	55	0
(4) GREATER THAN 200 FEET IN DEPTH										
A. 4-INCH DIAMETER BIT	Lineal Foot		40	0	28	0	18	0	NA	0
B. 6-INCH DIAMETER BIT	Lineal Foot		50	0	34	0	20	0	40	0
C. 8-INCH DIAMETER BIT	Lineal Foot		70	0	42	0	24	0	45	0
2E. AIR ROTARY										
(1) 0-50 FEET IN DEPTH										
A. 4-INCH DIAMETER BIT	Lineal Foot		30	0	16	0	14	0	NA	0
B. 6-INCH DIAMETER BIT	Lineal Foot		40	0	20	0	16	0	NA	0
C. 8-INCH DIAMETER BIT	Lineal Foot		60	0	28	0	18	0	NA	0
(2) 50-100 FEET IN DEPTH										
A. 4-INCH DIAMETER BIT	Lineal Foot		30	0	18	0	14	0	NA	0
B. 6-INCH DIAMETER BIT	Lineal Foot		40	0	24	0	16	0	NA	0
C. 8-INCH DIAMETER BIT	Lineal Foot		60	0	32	0	18	0	NA	0
(3) 100-200 FEET IN DEPTH										
A. 4-INCH DIAMETER BIT	Lineal Foot		35	0	20	0	14	0	NA	0
B. 6-INCH DIAMETER BIT	Lineal Foot		45	0	26	0	16	0	NA	0
C. 8-INCH DIAMETER BIT	Lineal Foot		65	0	34	0	18	0	NA	0
(4) GREATER THAN 200 FEET IN DEPTH										
A. 4-INCH DIAMETER BIT	Lineal Foot		40	0	28	0	16	0	NA	0
B. 6-INCH DIAMETER BIT	Lineal Foot		50	0	36	0	18	0	NA	0
C. 8-INCH DIAMETER BIT	Lineal Foot		70	0	42	0	20	0	NA	0
3. ROCK CORING										
(1) 0-50 FEET IN DEPTH										
A. NX-CORING	Lineal Foot		40	0	32	0	45	0	NA	0
B. HX-CORING	Lineal Foot		50	0	45	0	48	0	NA	0
C. NQ-CORING	Lineal Foot		40	0	32	0	50	0	NA	0
D. HQ-CORING	Lineal Foot		50	0			50	0	NA	0
(2) 50-100 FEET IN DEPTH										
A. NX-CORING	Lineal Foot		40	0	35	0	45	0	NA	0
B. HX-CORING	Lineal Foot		50	0	48	0	48	0	NA	0
C. NQ-CORING	Lineal Foot		40	0	35	0	50	0	NA	0
D. HQ-CORING	Lineal Foot		50	0			50	0	NA	0
(3) 100-200 FEET IN DEPTH										
A. NX-CORING	Lineal Foot		40	0	40	0	50	0	NA	0
B. HX-CORING	Lineal Foot		50	0	54	0	55	0	NA	0
C. NQ-CORING	Lineal Foot		40	0	40	0	60	0	NA	0

ITEM DESCRIPTION	UNIT	QUANTITY	Parratt-Wolff, Inc.		Nothnagle Drilling, Inc.		Uni-Tech Drilling Company, Inc.		Delta Well and Pump Company, Inc.	
			UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
D. HQ-CORING	Lineal Foot		50	0			60	0	NA	0
(4) GREATER THAN 200 FEET IN DEPTH										
A. NX-CORING	Lineal Foot		40	0	45	0	60	0	NA	0
B. HX-CORING	Lineal Foot		50	0	60	0	65	0	NA	0
4 ROLLER BIT REAMING NX/NQ CORE HOLE TO 4-INCH DIAMETER										
A. 0-50 FEET IN DEPTH	Lineal Foot		30	0	18	0	12	0	NA	0
B. 50-100 FEET IN DEPTH	Lineal Foot		40	0	19	0	14	0	NA	0
C. 100-200 FEET IN DEPTH	Lineal Foot		50	0	24	0	16	0	NA	0
D. GREATER THAN 200 FEET IN DEPTH	Lineal Foot		60	0	28	0	18	0	NA	0
5 ROLLER BIT REAMING NX/NQ CORE HOLE TO 6-INCH DIAMETER										
A. 0-50 FEET IN DEPTH	Lineal Foot		40	0	26	0	12	0	NA	0
B. 50-100 FEET IN DEPTH	Lineal Foot		50	0	28	0	14	0	NA	0
C. 100-200 FEET IN DEPTH	Lineal Foot		60	0	35	0	16	0	NA	0
D. GREATER THAN 200 FEET IN DEPTH	Lineal Foot		80	0	40	0	18	0	NA	0
6 BORE HOLE SAMPLING										
6A. SPLIT SPOON SAMPLING										
(1) 0-50 FEET IN DEPTH										
A. 2-INCH OD	Per Sample	143	20	2,860	10	1,430	15	2,145	35	5,005
B. 3-INCH OD	Per Sample	5	30	150	15	75	25	125	55	275
(2) 50-100 FEET IN DEPTH										
A. 2-INCH OD	Per Sample		30	0	12	0	15	0	40	0
B. 3-INCH OD	Per Sample		45	0	17	0	25	0	60	0
(3) 100-200 FEET IN DEPTH										
A. 2-INCH OD	Per Sample		45	0	14	0	20	0	45	0
B. 3-INCH OD	Per Sample		60	0	21	0	30	0	65	0
(4) GREATER THAN 200 FEET IN DEPTH										
A. 2-INCH OD	Per Sample		150	0	16	0	35	0	50	0
B. 3-INCH OD	Per Sample		200	0	25	0	45	0	70	0
6B SHELBY TUBE SAMPLING										
A 0-50 FEET IN DEPTH	Per Attempt		125	0	75	0	100	0	350	0
B 50-100 FEET IN DEPTH	Per Attempt		150	0	85	0	100	0	375	0
C. 100-200 FEET IN DEPTH	Per Attempt		200	0	95	0	130	0	400	0
D. GREATER THAN 200 FEET IN DEPTH	Per Attempt		300	0	125	0	150	0	575	0
6C HYDRO PUNCH SAMPLING										
A 0-50 FEET IN DEPTH	Per Sample		175	0	150	0	275	0	250	0
B 50-100 FEET IN DEPTH	Per Sample		200	0	160	0	295	0	275	0
C. 100-200 FEET IN DEPTH	Per Sample		250	0	175	0	325	0	300	0
D. GREATER THAN 200 FEET IN DEPTH	Per Sample		400	0	200	0	375	0	375	0
7 BOREHOLE ABANDONMENT										
A 0 TO 4-INCH DIAMETER BOREHOLE	Per Foot		4	0	5	0	3	0	12	0
B 4 TO 8-INCH DIAMETER BOREHOLE	Per Foot	225	6	1,350	6	1,350	6	1,350	15	3,375
C. 8 TO 12-INCH DIAMETER BOREHOLE	Per Foot		12	0	10	0	10	0	25	0
8 WELL SCREEN										
8A SCHEDULE 40 PVC										
A 1-INCH ID	Per Foot		2	0	10	0	7	0	4	0
B 2-INCH ID	Per Foot		8	0	14	0	10	0	6	0
C. 4-INCH ID	Per Foot	40	10	400	22	880	20	800	9	360
D. 6-INCH ID	Per Foot		20	0	30	0	25	0	24	0
E 8-INCH ID	Per Foot		30	0	38	0	30	0	35	0
8B SCHEDULE 80 PVC										
A. 4-INCH ID	Per Foot		15	0	28	0	20	0	14	0
B. 6-INCH ID	Per Foot		30	0	36	0	28	0	35	0

ITEM DESCRIPTION	UNIT	QUANTITY	Parratt-Wolff, Inc.		Nothnagle Drilling, Inc.		Uni-Tech Drilling Company, Inc.		Delta Well and Pump Company, Inc.	
			UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
C. 8-INCH ID	Per Foot		40	0	44	0	32	0	40	0
8C. STAINLESS, SCHEDULE 5, TYPE 304										
A. 2-INCH ID	Per Foot		15	0	28	0	30	0	30	0
B. 4-INCH ID	Per Foot		30	0	56	0	50	0	48	0
C. 6-INCH ID	Per Foot		60	0	68	0	65	0	60	0
8D PRE-SAND PACKED STAINLESS STEEL WELL SCREEN, SCHEDULE 5, TYPE 304										
(1) 2-INCH ID	Per Foot		60	0	84	0	75	0	70	0
(2) 4-INCH ID	Per Foot		90	0	124	0	95	0	90	0
9 WELL RISER										
9A. SCHEDULE 40 PVC										
A. 1-INCH ID	Per Foot		2	0	8	0	3	0	2	0
B. 2-INCH ID	Per Foot		4	0	14	0	5	0	3	0
C. 4-INCH ID	Per Foot	20	6	120	19	380	8	160	6	120
D. 6-INCH ID	Per Foot		15	0	24	0	12	0	10	0
E. 8-INCH ID	Per Foot		25	0	30	0	14	0	20	0
9B. SCHEDULE 80 PVC										
A. 4-INCH ID	Per Foot		10	0	25	0	10	0	10	0
B. 6-INCH ID	Per Foot		25	0	30	0	14	0	20	0
C. 8-INCH ID	Per Foot		35	0	38	0	16	0	40	0
9C STAINLESS, SCHEDULE 5, TYPE 304										
A. 2-INCH ID	Per Foot		10	0	22	0	12	0	15	0
B. 4-INCH ID	Per Foot		25	0	42	0	18	0	25	0
C. 6-INCH ID	Per Foot		50	0	60	0	28	0	40	0
10 WELL SCREEN SANDPACK MATERIAL	Bag (94 LBS)	30	15	450	25	750	12	360	10	300
(No.00 TO No. 2 SIZE SAND)										
11 BENTONITE										
A. PELLETS	5 Gallon Pail		50	0	50	0	70	0	60	0
B. POWDER	Bag (50 LBS)		15	0	20	0	12	0	30	0
C. GRANULAR	Bag (50 LBS)	2	20	40	25	50	12	24	30	60
12 GROUT										
A. PORTLAND CEMENT TYPE-I	Bag (94 LBS)		30	0	20	0	12	0	15	0
B. PORTLAND CEMENT TYPE-II	Bag (94 LBS)	6	30	180	20	120	12	72	25	150
13 INSTALLATION OF OUTER CASING FOR MULTI-CASED WELLS										
(1) SCHEDULE 40 PVC										
A. 4-INCH DIAMETER	Per Foot		20	0	16	0	15	0	50	0
B. 6-INCH DIAMETER	Per Foot		30	0	20	0	20	0	55	0
C. 8-INCH DIAMETER	Per Foot		40	0	28	0	24	0	65	0
D. 10-INCH DIAMETER	Per Foot		50	0	36	0	30	0	80	0
(2) SCHEDULE 80 PVC										
A. 4-INCH DIAMETER	Per Foot		25	0	18	0	17	0	60	0
B. 6-INCH DIAMETER	Per Foot		35	0	22	0	22	0	65	0
C. 8-INCH DIAMETER	Per Foot		45	0	30	0	26	0	75	0
D. 10-INCH DIAMETER	Per Foot		55	0	38	0	32	0	90	0
(3) CARBON STEEL										
A. 4-INCH DIAMETER	Per Foot		25	0	18	0	16	0	50	0
B. 6-INCH DIAMETER	Per Foot		30	0	22	0	21	0	55	0
C. 8-INCH DIAMETER	Per Foot		40	0	30	0	25	0	70	0
D. 10-INCH DIAMETER	Per Foot		50	0	42	0	32	0	100	0
14 INSTALLATION OF PROTECTIVE CASINGS										
14A FLUSH MOUNT SURFACE CASING										
(1) FLUSH MOUNT WITH LOCKING COVER, DRAIN HOLE										

ITEM DESCRIPTION	UNIT	QUANTITY	Parratt-Wolff, Inc.		Nothnagle Drilling, Inc.		Uni-Tech Drilling Company, Inc.		Delta Well and Pump Company, Inc.	
			UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
SET IN A 2'X2' CONCRETE PAD EXTENDING AT LEAST 6 INCHES BELOW GROUND SURFACE										
A. 4-INCH ID	Per Casing		200	0	130	0	275	0	200	0
B. 6-INCH ID	Per Casing		200	0	150	0	300	0	225	0
C. 8-INCH ID	Per Casing	2	200	400	180	360	325	650	250	500
14B ABOVE GRADE										
(1) 6-Foot Protective Surface Casing, with Locking Cover, DrainHole set in a 2X2 foot cement pad extending at least a footbelow ground surface.										
A. 4- INCH ID	Per Casing		200	0	150	0	275	0	200	0
B. 6-INCH ID	Per Casing		250	0	175	0	300	0	225	0
C. 8-INCH ID	Per Casing		300	0	200	0	325	0	250	0
14C KEYED ALIKE LOCKS	Per Lock	2	10	20	12	24	12	24	19	38
15 CONTAINERIZATION OF DRILLING MATERIAL AND STAGING (ON PALLETS)										
A. PROVIDE CLEAN EMPTY DOT APPROVED GALLON DRUMS WITH SEALS, BUNGS, A	Per 55 Gallon Drum	10	50	500	30	300	30	300	45	450
B. PROVIDE CONTAMINMENT AND STAGIN DISPOSABLE PPE CLOTHING ONSITE ON	Per 55 Gallon Drum		50	0	35	0	45	0	45	0
C. FILLING, MOVING, STAGING 55 GALLON ON-SITE ON PALLETS	Per 55 Gallon Drum	10	75	750	30	300	45	450	45	450
D. MOVE FILLED DRUMS TO SECONDARY L WITHIN 1 MILE OF DRILL SITE	Per 55 Gallon Drum		100	0	35	0	55		45	0
16 WELL DEVELOPMENT										
A. BAILING	Per Hour	0	45	0	130	0	160	0	140	0
B. PUMP AND SURGE (submersible, centrifug	Per Hour	12	65	780	150	1,800	160	1,920	140	1,680
C. AIR LIFTING	Per Hour		110	0	150	0	160	0	140	0
17 WELL ABANDONMENT										
A. 2-INCH DIAMETER WELL	Per Foot		5	0	18	0	5	0	20	0
B. 4-INCH DIAMETER WELL	Per Foot		7	0	24	0	8	0	25	0
C. 6-INCH DIAMETER WELL	Per Foot		10	0	32	0	10	0	30	0
D. 8-INCH DIAMETER WELL	Per Foot		15	0	40	0	12	0	35	0
18 BULLDOZER WITH OPERATOR FOR CLEARING/SITE ACCESS (bulldozer with 6 foot blade)										
A. MOBILIZATION AND DEMOBILIZATION	Lump Sum		TBD	0	450	0	650	0	TBD	0
B. ON SITE OPERATION	Per Hour		110	0	80	0	125	0	125	0
C. DECONTAMINATION BETWEEN LOCATIO	Lump Sum Per Location		110	0	150	0	80	0	150	0
19 BACKHOE/ EXCAVATOR WITH OPERATOR FOR TEST PIT/ TRENCH EXCAVATION										
A. MOBILIZATION AND DEMOBILIZATION	Lump Sum		400	0	450	0	650	0	TBD	0
B. RUBBER TIRE (10 FOOT EXCAVATION IN	Per Hour		90	0	75	0	125	0	125	0
C. TRACKED (20-FOOT EXCAVATION IN DEP	Per Hour		130	0	125	0	150	0	300	0
D. DECONTAMINATION BETWEEN LOCATIO	Lump Sum Per Location		130	0	150	0	80	0	150	0
20 ONSITE RESTORATION										
A. COMPACTED CLEANFILL	Cubic Yard		15	0	15	0	12	0	30	0
B. TOPSOIL	Cubic Yard		30	0	25	0	12	0	30	0
C. GRASS SEEDING	Square Yard		10	0	15	0	0	0	10	0
D. ASPHALT PAVING	Bag (60 LBS)		20	0	40	0	12	0	20	0
E CONCRETE PAVING	Bag (94 LBS)		30	0	25	0	12	0	25	0
21 SPECIALTY ITEMS										

	ITEM DESCRIPTION	UNIT	QUANTITY	Parratt-Wolff, Inc.		Nothnagle Drilling, Inc.		Uni-Tech Drilling Company, Inc.		Delta Well and Pump Company, Inc.	
				UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
21A	Packer testing equipment including labor and equipment for testing using single or double packers, and interval gas sampling between straddle packer units										
	(1) NQ/NX DIAMETER BOREHOLE	Per Hour		190	0	150	0	180	0	NA	0
	(2) HQ/HX DIAMETER BOREHOLE	Per Hour		190	0	160	0	180	0	NA	0
21B	PUMP TEST- Labor and equipment including one laborer, pump and generator to provide continuous pumping for a min. 4- hours test in a 100-foot well 100 feet of discharge piping										
	(1) 0-50 GALLON PER MINUTE TEST	Per Hour	48	65	3,120	125	6,000	150	7,200	250	12,000
	(2) 50-100 GALLON PER MINUTE TEST	Per Hour		90	0	150	0	150	0	350	0
	(3) 100-200 GALLON PER MINUTE TEST	Per Hour		125	0	200	0	150	0	375	0
21C	WATER HAULING-When on-site water is insufficient or unavailable provide additional laborer and vehicle with minimum 500-gallon capacity to supply portable water to drill rig	Per Day		250	0	450	0	450	0	900	0
22	STANDBY TIME	Per Hour	4	200	800	150	600	150	600	130	520
23	LABOR CHARGE for services not listed in the Price Quotation Schedule	Per Hour									
	A. SUPERVISOR RATE	Per Hour		90	0	75	0	95	0	75	0
	B. LABORER RATE	Per Hour		65	0	60	0	65	0	70	0
24	HEALTH AND SAFETY										
	A. Cost increment for level "C" protection (indicate which items would be affected)	Percent		10%		30.00%		20%		40%	
	B. Cost increment for level "B" protection (indicate which items would be affected)	Percent		100%		$50.00		30%		100%	
25	Price Increase or Optional Additional 12 month period (indicate which items would be afected)	Percent		0.00%		2.00%		1.50%		3.00%	
	TOTAL				**18,980**		**19,459**		**26,515**		**44,408**

NA: Not available.

TBD: To be determined for each work assignment

SCHEDULE 2.11 (f)2
UNIT PRICE SUBCONTRACTS
93 Main Street Site
Work Assignment Number D003600-40

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Parratt-Wolff, Inc.	Borings and Well Installation	$18,980	$564

Contract Item number		Max. Reimbursement Rate		Estimated No. of Units		Total Estimated Costs
1. A.	MOBILIZATION/DEMOBILIZATION,INCLUDING SITE SET UP,SITEBREAKDOWN, CLEANUP,REPAIR, INITIAL AND FINAL EQUIPMENTDECONTAMINATION, TRAVEL,LODGING, MEALSAND LABOR FOR SITE RESTORATION.	$400	Lump Sum	2	Lump Sum	$800
B.	CONSTRUCTION AND REMOVAL OF DECON PAD	400	Lump Sum	1	Lump Sum	400
C.	WELL/BORING SET-UP	200	Per Well/Boring	11	Per Well/Boring	2,200
2	DRILLING TECHNIQUES					
2A.	HOLLOW STEM AUGER					
(1)	0-50 FEET IN DEPTH					
A.	2.25- In. ID HSA	12	Lineal Foot		Lineal Foot	0
B.	3.25- In. ID HSA	12	Lineal Foot	225	Lineal Foot	2,700
C.	4.25- In. ID HSA	13	Lineal Foot		Lineal Foot	0
D.	6.25- In. ID HSA	16	Lineal Foot	60	Lineal Foot	960
E.	8.25- In. ID HSA	24	Lineal Foot		Lineal Foot	0
(2)	50-100 FEET IN DEPTH					
A.	3.25- In. ID HSA	13	Lineal Foot		Lineal Foot	0
B.	4.25- In. ID HSA	15	Lineal Foot		Lineal Foot	0
C.	6.25- In. ID HSA	20	Lineal Foot		Lineal Foot	0
D.	8.25- In. ID HSA	NA	Lineal Foot		Lineal Foot	0
(3)	100-200 FEET IN DEPTH					
A.	3.25- In. ID HSA	NA	Lineal Foot		Lineal Foot	0
B.	4.25- In. ID HSA	NA	Lineal Foot		Lineal Foot	0
C.	6.25- In. ID HSA	NA	Lineal Foot		Lineal Foot	0
2B	CABLE TOOL- Flush Joint or Coupled Casing					
2C	SPIN TEMPORARY FLUSH JOINT CASTING					
2D.	MUD ROTARY					
(1)	0-50 FEET IN DEPTH					
A.	4-INCH DIAMETER BIT	30	Lineal Foot		Lineal Foot	0
B.	6-INCH DIAMETER BIT	40	Lineal Foot		Lineal Foot	0
C.	8-INCH DIAMETER BIT	60	Lineal Foot		Lineal Foot	0
D.	10-INCH DIAMETER BIT	80	Lineal Foot		Lineal Foot	0
(2)	50-100 FEET IN DEPTH					
A.	4-INCH DIAMETER BIT	35	Lineal Foot		Lineal Foot	0
B.	6-INCH DIAMETER BIT	45	Lineal Foot		Lineal Foot	0
C.	8-INCH DIAMETER BIT	65	Lineal Foot		Lineal Foot	0
D.	10-INCH DIAMETER BIT	90	Lineal Foot		Lineal Foot	0
(3)	100-200 FEET IN DEPTH					
A.	4-INCH DIAMETER BIT	35	Lineal Foot		Lineal Foot	0
B.	6-INCH DIAMETER BIT	45	Lineal Foot		Lineal Foot	0
C.	8-INCH DIAMETER BIT	65	Lineal Foot		Lineal Foot	0
D.	10-INCH DIAMETER BIT	90	Lineal Foot		Lineal Foot	0
(4)	GREATER THAN 200 FEET IN DEPTH					
A.	4-INCH DIAMETER BIT	40	Lineal Foot		Lineal Foot	0
B.	6-INCH DIAMETER BIT	50	Lineal Foot		Lineal Foot	0
C.	8-INCH DIAMETER BIT	70	Lineal Foot		Lineal Foot	0
2E.	AIR ROTARY					

3.	ROCK CORING					
	(1) 0-50 FEET IN DEPTH					
	A. NX-CORING	40	Lineal Foot		Lineal Foot	0
	B. HX-CORING	50	Lineal Foot		Lineal Foot	0
	C. NQ-CORING	40	Lineal Foot		Lineal Foot	0
	D. HQ-CORING	50	Lineal Foot		Lineal Foot	0
	(2) 50-100 FEET IN DEPTH					
	A. NX-CORING	40	Lineal Foot		Lineal Foot	0
	B. HX-CORING	50	Lineal Foot		Lineal Foot	0
	C. NQ-CORING	40	Lineal Foot		Lineal Foot	0
	D. HQ-CORING	50	Lineal Foot		Lineal Foot	0
	(3) 100-200 FEET IN DEPTH					
	A. NX-CORING	40	Lineal Foot		Lineal Foot	0
	B. HX-CORING	50	Lineal Foot		Lineal Foot	0
	C. NQ-CORING	40	Lineal Foot		Lineal Foot	0
	D. HQ-CORING	50	Lineal Foot		Lineal Foot	0
	(4) GREATER THAN 200 FEET IN DEPTH					
	A. NX-CORING	40	Lineal Foot		Lineal Foot	0
	B. HX-CORING	50	Lineal Foot		Lineal Foot	0
4	ROLLER BIT REAMING NX/NQ CORE HOLE TO 4-INCH DIAMETER					
5	ROLLER BIT REAMING NX/NQ CORE HOLE TO 6-INCH DIAMETER					
6	BORE HOLE SAMPLING					
6A.	SPLIT SPOON SAMPLING					
	(1) 0-50 FEET IN DEPTH					
	A. 2-INCH OD	20	Per Sample	143	Per Sample	2,860
	B. 3-INCH OD	30	Per Sample	5	Per Sample	150
	(2) 50-100 FEET IN DEPTH					
	A. 2-INCH OD	30	Per Sample		Per Sample	0
	B. 3-INCH OD	45	Per Sample		Per Sample	0
	(3) 100-200 FEET IN DEPTH					
	A. 2-INCH OD	45	Per Sample		Per Sample	0
	B. 3-INCH OD	60	Per Sample		Per Sample	0
	(4) GREATER THAN 200 FEET IN DEPTH					
	A. 2-INCH OD	150	Per Sample		Per Sample	0
	B. 3-INCH OD	200	Per Sample		Per Sample	0
6B	SHELBY TUBE SAMPLING					
6C	HYDRO PUNCH SAMPLING					
7	BOREHOLE ABANDONMENT					
8	WELL SCREEN					
8A	SCHEDULE 40 PVC					
	A 1-INCH ID	2	Per Foot		Per Foot	0
	B 2-INCH ID	8	Per Foot		Per Foot	0
	C. 4-INCH ID	10	Per Foot	40	Per Foot	400
	D. 6-INCH ID	20	Per Foot		Per Foot	0
	E 8-INCH ID	30	Per Foot		Per Foot	0
8B	SCHEDULE 80 PVC					
8C.	STAINLESS, SCHEDULE 5, TYPE 304					
	A. 2-INCH ID	15	Per Foot		Per Foot	0
	B. 4-INCH ID	30	Per Foot		Per Foot	0
	C. 6-INCH ID	60	Per Foot		Per Foot	0
8D	PRE-SAND PACKED STAINLESS STEEL WELL SCREEN, SCHEDULE 5, TYPE 304					

9	WELL RISER						
9A.	SCHEDULE 40 PVC						
	A. 1-INCH ID	2	Per Foot		Per Foot	0	
	B. 2-INCH ID	4	Per Foot		Per Foot	0	
	C. 4-INCH ID	6	Per Foot	20	Per Foot	120	
	D. 6-INCH ID	15	Per Foot		Per Foot	0	
	E. 8-INCH ID	25	Per Foot		Per Foot	0	
9B.	SCHEDULE 80 PVC						
9C	STAINLESS, SCHEDULE 5, TYPE 304						
10	WELL SCREEN SANDPACK MATERIAL (No.00 TO No. 2 SIZE SAND)	15	Bag (94 LBS)	30	Bag (94 LBS)	450	
11	BENTONITE						
	A. PELLETS	50	5 Gallon Pail		5 Gallon Pail	0	
	B. POWDER	15	Bag (50 LBS)		Bag (50 LBS)	0	
	C. GRANULAR	20	Bag (50 LBS)	2	Bag (50 LBS)	40	
12	GROUT						
	A. PORTLAND CEMENT TYPE-I	30	Bag (94 LBS)		Bag (94 LBS)	0	
	B. PORTLAND CEMENT TYPE-II	30	Bag (94 LBS)	6	Bag (94 LBS)	180	
13	INSTALLATION OF OUTER CASING FOR MULTI-CASED WELLS						
	(1) SCHEDULE 40 PVC						
	A. 4-INCH DIAMETER	20	Per Foot		Per Foot	0	
	B. 6-INCH DIAMETER	30	Per Foot		Per Foot	0	
	C. 8-INCH DIAMETER	40	Per Foot		Per Foot	0	
	D. 10-INCH DIAMETER	50	Per Foot		Per Foot	0	
	(2) SCHEDULE 80 PVC						
	(3) CARBON STEEL						
	A. 4-INCH DIAMETER	25	Per Foot		Per Foot	0	
	B. 6-INCH DIAMETER	30	Per Foot		Per Foot	0	
	C. 8-INCH DIAMETER	40	Per Foot		Per Foot	0	
	D. 10-INCH DIAMETER	50	Per Foot		Per Foot	0	
14	INSTALLATION OF PROTECTIVE CASINGS						
14A	FLUSH MOUNT SURFACE CASING						
	(1) FLUSH MOUNT WITH LOCKING COVER, DRAIN HOLE SET IN A 2'X2' CONCRETE PAD EXTENDING AT LEAST 6 INCHES BELOW GROUND SURFACE						
	A. 4-INCH ID	200	Per Casing		Per Casing	0	
	B. 6-INCH ID	200	Per Casing		Per Casing	0	
	C. 8-INCH ID	200	Per Casing	2	Per Casing	400	
14B	ABOVE GRADE						
	(1) 6-Foot Protective Surface Casing, with Locking Cover, DrainHole set in a 2X2 foot cement pad extending at least a footbelow ground surface.						
	A. 4- INCH ID	200	Per Casing		Per Casing	0	
	B. 6-INCH ID	250	Per Casing		Per Casing	0	
	C. 8-INCH ID	300	Per Casing		Per Casing	0	
14C	KEYED ALIKE LOCKS	10	Per Lock	2	Per Lock	20	
15	CONTAINERIZATION OF DRILLING MATERIAL AND STAGING (ON PALLETS)						
	A. PROVIDE CLEAN EMPTY DOT APPROVED 55 GALLON DRUMS WITH SEALS, BUNGS, AND LIDS	50	Per 55 Gallon Drum	10	Per 55 Gallon Drum	500	
	B. PROVIDE CONTAMINMENT AND STAGING OF USED DISPOSABLE PPE CLOTHING ONSITE ON PALLETS	50	Per 55 Gallon Drum		Per 55 Gallon Drum	0	
	C. FILLING, MOVING, STAGING 55 GALLON DRUMS ON-SITE ON PALLETS	75	Per 55 Gallon Drum	10	Per 55 Gallon Drum	750	
	D. MOVE FILLED DRUMS TO SECONDARY LOCATION WITHIN 1 MILE OF DRILL SITE	100	Per 55 Gallon Drum		Per 55 Gallon Drum	0	
16	WELL DEVELOPMENT						

	A. BAILING	45	Per Hour	0	Per Hour	0
	B. PUMP AND SURGE (submersible, centrifugal)	65	Per Hour	12	Per Hour	780
	C. AIR LIFTING	110	Per Hour		Per Hour	0
17	WELL ABANDONMENT					
18	BULLDOZER WITH OPERATOR FOR CLEARING/SITE ACCESS (bulldozer with 6 foot blade)					
19	BACKHOE/ EXCAVATOR WITH OPERATOR FOR TEST PIT/ TRENCH EXCAVATION					
	A. MOBILIZATION AND DEMOBILIZATION	400	Lump Sum		Lump Sum	0
	B. RUBBER TIRE (10 FOOT EXCAVATION IN DEPTH)	90	Per Hour		Per Hour	0
	C. TRACKED (20-FOOT EXCAVATION IN DEPTH)	130	Per Hour		Per Hour	0
	D. DECONTAMINATION BETWEEN LOCATIONS	130	Lump Sum Per Location		Lump Sum Per Location	0
20	ONSITE RESTORATION					
21	SPECIALTY ITEMS					
21A	Packer testing equipment including labor and equipment for testing using single or double packers, and interval gas sampling between straddle packer units					
	(1) NQ/NX DIAMETER BOREHOLE	190	Per Hour		Per Hour	0
	(2) HQ/HX DIAMETER BOREHOLE	190	Per Hour		Per Hour	0
21B	PUMP TEST- Labor and equipment including one laborer, pump and generator to provide continuous pumping for a min. 4- hours test in a 100-foot well 100 feet of discharge piping					
	(1) 0-50 GALLON PER MINUTE TEST	65	Per Hour	48	Per Hour	3,120
	(2) 50-100 GALLON PER MINUTE TEST	90	Per Hour		Per Hour	0
	(3) 100-200 GALLON PER MINUTE TEST	125	Per Hour		Per Hour	0
21C	WATER HAULING-When on-site water is insufficient or unavailable provide additional laborer and vehicle with minimum 500-gallon capacity to supply portable water to drill rig	250	Per Day		Per Day	0
22	STANDBY TIME	200	Per Hour	4	Per Hour	800
23	LABOR CHARGE for services not listed in the Price Quotation Schedule		Per Hour		Per Hour	
	A. SUPERVISOR RATE	90	Per Hour		Per Hour	0
	B. LABORER RATE	65	Per Hour		Per Hour	0
24	HEALTH AND SAFETY					
25	Price Increase or Optional Additional 12 month period (indicate which items would be afected)	0.00%	Percent		Percent	
				Subtotal		$18,980
				Management Fee		$664
				Total		$19,644

SCHEDULE 2.11 (f) 2
UNIT PRICE SUBCONTRACTS
93 Main Street Site
Work Assignment Number D003600-40

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
MITKEM, Inc. (MBE)	Sample Analysis	$38,085	$1,333

	Item	Method	Maximum Reimbursement Rate	Expedited Turnaround Multiplier	Estimated No. of Units	Total Estimated Costs
Surface Soils	VOCs	OLMO4.2	$110.00 /sample	1	8	$880
	SVOCs	OLMO4.2	$225.00 /sample	1	8	$1,800
	Pesticides/PCBs	OLMO4.2	$130.00 /sample	1	8	$1,040
	TAL Metals and Cyanide	OLMO4.2	$110.00 /sample	1	8	$880
Subsurface Soils	VOCs	OLMO4.2	$110.00 /sample	1	36	$3,960
	SVOCs	OLMO4.2	$225.00 /sample	1	36	$8,100
	Pesticides/PCBs	OLMO4.2	$130.00 /sample	1	36	$4,680
	TAL Metals and Cyanide	OLMO4.2	$110.00 /sample	1	3	$330
Ground Water	VOCs	OLMO4.2	$110.00 /sample	1	8	$880
1st round	SVOCs	OLMO4.2	$200.00 /sample	1	8	$1,600
	Pesticides/PCBs	OLMO4.2	$120.00 /sample	1	8	$960
	TAL Metals and Cyanide	OLMO4.2	$110.00 /sample	1	8	$880
Ground Water	VOCs	OLMO4.2	$110.00 /sample	1	2	$220
pumping test	SVOCs	OLMO4.2	$200.00 /sample	1	2	$400
	Pesticides/PCBs	OLMO4.2	$120.00 /sample	1	2	$240
	TAL Metals and Cyanide	OLMO4.2	$110.00 /sample	1	2	$220
	Alkalinity	EPA 310.1	$15.00 /sample	1	2	$30
	Anions (NO3, SO4, Cl, Br, F)	EPA 300.0	$75.00 /sample	1	2	$150
	Cations (K, Na, Ca, Mg, Fe, Mn, Ba)	EPA 200.7	$90.00 /sample	1	2	$180
	Total Organic Carbon	EPA 415.1	$35.00 /sample	1	2	$70
	Dissolved Organic Carbon	EPA 415.1	$45.00 /sample	1	2	$90
	Total Dissolved Solids	EPA 160.1	$15.00 /sample	1	2	$30
	Total Suspended Solids	EPA 160.2	$15.00 /sample	1	2	$30
Waste Soil and Debris						
	TCLP		$750.00 /sample	1	3	$2,250
QA/QC Samples	Blanks					
	Trip Blanks	OLMO4.2	$110.00 /sample	1	2	$220
Groundwater	Matrix Spike					
	VOCs	OLMO4.2	$110.00 /sample	1	2	$220
	SVOCs	OLMO4.2	$225.00 /sample	1	2	$450
	Pesticides/PCBs	OLMO4.2	$130.00 /sample	1	2	$260
	Metals and Cyanide	OLMO4.2	$110.00 /sample	1	2	$220
	Matrix Spike Duplicate					
	VOCs	OLMO4.2	$110.00 /sample	1	2	$220
	SVOCs	OLMO4.2	$225.00 /sample	1	2	$450
	Pesticides/PCBs	OLMO4.2	$130.00 /sample	1	2	$260
	Metals and Cyanide	OLMO4.2	$110.00 /sample	1	2	$220
	Matrix Spike Blank					
	VOCs	OLMO4.2	$110.00 /sample	1	2	$220
	SVOCs	OLMO4.2	$225.00 /sample	1	2	$450
	Pesticides/PCBs	OLMO4.2	$130.00 /sample	1	2	$260
	Metals and Cyanide	OLMO4.2	$110.00 /sample	1	2	$220
Soil, Sediment	Matrix Spike					
	VOCs	OLMO4.2	$110.00 /sample	1	3	$330
	SVOCs	OLMO4.2	$225.00 /sample	1	3	$675
	Pesticides/PCBs	OLMO4.2	$130.00 /sample	1	3	$390
	Metals and Cyanide	OLMO4.2	$110.00 /sample	1	1	$110
	Matrix Spike Duplicate					
	VOCs	OLMO4.2	$110.00 /sample	1	3	$330
	SVOCs	OLMO4.2	$225.00 /sample	1	3	$675
	Pesticides/PCBs	OLMO4.2	$130.00 /sample	1	3	$390
	Metals and Cyanide	OLMO4.2	$110.00 /sample	1	1	$110
	Matrix Spike Blank					
	VOCs	OLMO4.2	$110.00 /sample	1	3	$330
	SVOCs	OLMO4.2	$225.00 /sample	1	3	$675
	Pesticides/PCBs	OLMO4.2	$130.00 /sample	1	3	$390
	Metals and Cyanide	OLMO4.2	$110.00 /sample	1	1	$110

SUBTOTAL	**$38,085**
SUBCONTRACT MANAGEMENT FEE	**$1,333**
TOTAL	**$39,418**

SCHEDULE 2.11 (f)1
UNIT PRICE SUBCONTRACTS
93 Main Street Site
Work Assignment Number D003600-40

NAME OF SUBCONTRACTOI	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Jamaica Blue Print Co., Inc.	Reproduction Services	**$8,831.55**	**$0.00**

Item	Maximum Reimbursement Rate	Estimated No. of Units	Total Estimated Costs
Drawings			
Item 1 Bound 30" by 42" Blue Prints, Each Set Consisting of 17 Sheets	$18.58	8	$148.64
Item 2 Bound 30" by 42" Blue Prints, Each Set Consisting of 17 Sheets	$27.68	5	$138.40
Item 3 Bound 30" by 42" Blue Prints, Each Set Consisting of 17 Sheets	$11.65	83	$966.95
Specifications			
Item 4 Bound Books, Each Consisting of 1000 Double-Sided Sheets	$118.30	8	$946.40
Item 5 Bound Books, Each Consisting of 1000 Double-Sided Sheets	$119.08	5	$595.40
Item 6 Bound Books, Each Consisting of 1000 Double-Sided Sheets	$72.72	83	$6,035.76
		Total	$8,831.55

SCHEDULE 2.11 (f)4
UNIT PRICE SUBCONTRACTS
93 Main Street Site
Work Assignment Number D003600-40

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MANAGEMENT FEE
Environmental Products and Services, Inc.	Water Disposal	$8,490.00	$0.00

Item	Maximum Reimbursement Rate	Estimated No. of Units	Total Estimated Costs
1. Transportation and disposal of water (pumping test/development)			
a. Tank spot fee	$950.00 /event	1 event	$950.00
b. Tank Rental (10,000 gallon tank)	$40.00 /day	30 days	$1,200.00
c. Transportation	$1,100.00 /3,000 gal load	2 loads	$2,200.00
d. Disposal	$0.39 /gallon	6,000 gallons	$2,340.00
e. Tank Removal	$950.00 /event	1 event	$950.00
f. Tank Cleaning	$850.00 /event	1 event	$850.00
2. Transportation and disposal of drill cuttings (non-hazardous)			
a. Rolloff spot fee (30 cu.yd.)	$125.00 /event	event	$0.00
b. Rolloff Rental	$12.00 /day	days	$0.00
c. Transportation	$225.00 /load	load	$0.00
d. Disposal - hazardous soil F039 - Subtitle C	$27.00 /ton	tons	$0.00

SUBTOTAL	$8,490.00
SUBCONTRACT MANAGEMENT FEE	$0.00
TOTAL	$8,490.00

93 Main Street Site
Work Assignment Number D003600-40
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	$77,352	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$122,448	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$199,801	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$4,745	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$3,840	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$8,585	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$135,925	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$344,310	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$16,783	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$361,094	0.00

Project Manager (Engineer) _____ Date _____

Engineer: Dvirka & Bartilucci

Date Prepared:
Billing Period:
Invoice No.:

93 Main Street Site
Work Assignment Number D003600-40

SCHEDULE 2.11(g) SUPPLEMENTAL
MONTHLY COST CONTROL REPORT
SUBCONTRACTS

	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	Managemnt Fee Budget	Managemnt Fee Paid	Total Costs To Date
1	YEC, Inc. (MBE)	Survey new points	0.00	0.00	0.00	$2,394			
2	YEC, Inc. (MBE)	Property Survey	0.00	0.00	0.00	$7,667			
3	To b e determined	Treatability study	0.00	0.00	0.00	$45,000			
4	Ecologic (WBE)	Pumping Test ass	0.00	0.00	0.00	$4,480			
5	Parratt-Wolff, Inc.	Borings and Well	0.00	0.00	0.00	$18,980	$664		
6	MITKEM, Inc. (MBE)	Sample Analysis	0.00	0.00	0.00	$38,085	$1,333		
7	Environmental Products	Water Disposal	0.00	0.00	0.00	$8,490	$0		
8	Jamaica Blue Print Co.	Reproduction	0.00	0.00	0.00	$8,832	$0		
	Total					$133,928	$1,997		

93 Main Street Site
Work Assignment Number D003600-40
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

	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	$7,767	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$12,294	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$20,061	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$550	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$180	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$730	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	$20,791	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$1,685	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$22,476	0.00

Project Manager (Engineer) _____ Date _____

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

	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	$15,986	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$25,305	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$41,291	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$3,820	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$2,980	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$6,800	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$82,093	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$130,184	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$3,468	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$133,652	0.00

Project Manager (Engineer) _____ Date _____

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

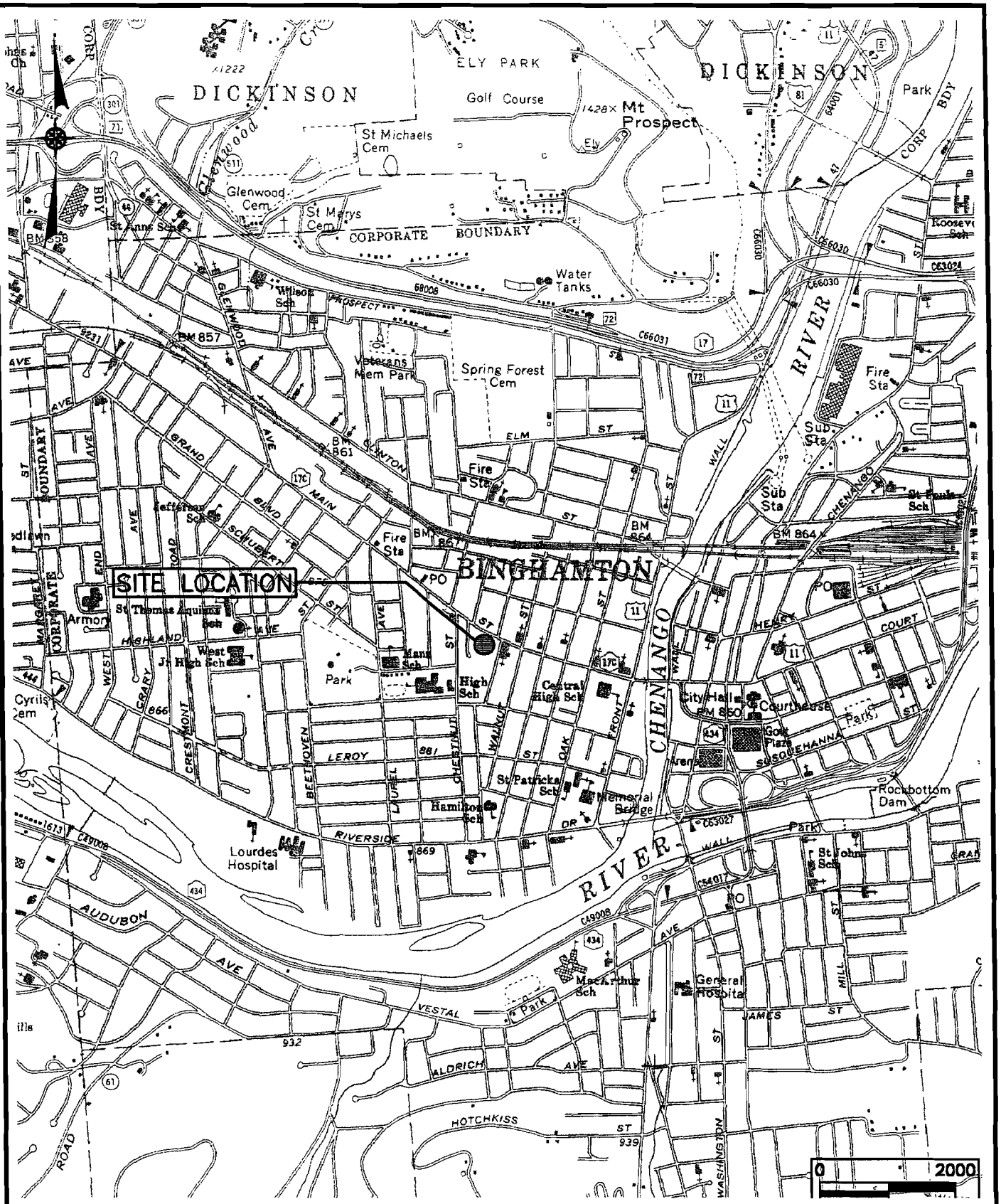
	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$5,522	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$8,741	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$14,263	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	$0	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$0	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$45,000	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$59,263	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$1,198	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$60,461	0.00

Project Manager (Engineer) _____ Date _____

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

	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	$41,620	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$65,885	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$107,505	0.00
4. Travel	0.00	0.00	0.00	0.00	0.00	0.00	$375	0.00
5. Other Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$680	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$1,055	0.00
7. Subcontractors	0.00	0.00	0.00	0.00	0.00	0.00	$8,832	0.00
8. Total Work Assignment Cost	0.00	0.00	0.00	0.00	0.00	0.00	$117,392	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$9,030	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$126,422	0.00

Project Manager (Engineer) _____ Date _____



SOURCE: UNITED STATES GEOLOGICAL SURVEY BINGHAMTON WEST QUADRANGLE

93 MAIN STREET SITE REMEDIAL DESIGN
BINGHAMTON, NEW YORK

SITE LOCATION MAP

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

FIGURE 1-1

93 Main Street Site
Engineer: Dvirka & Bartilucci
Task No./Name: 5/Pre-Award Services
Complete: 0.00%

SCHEDULE 2.11(g)

Date Prepared:
Billing Period:
Invoice No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

	A Costs Claimed This Period	B Paid To Date	C Total Disallowed To Date	D Total Costs Incurred To Date (A+B+B1)	E Estimated Costs To Completion	F Total Work Assignment Price (A+B+E)	G Approved Budget	H Estimated Under/(Over) (G-F)
1. Direct Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$6,458	0.00
2. Indirect	0.00	0.00	0.00	0.00	0.00	0.00	$10,223	0.00
3. Subtotal Direct Salary Costs and Indirect Costs	0.00	0.00	0.00	0.00	0.00	0.00	$16,681	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	$0	0.00
6. Subtotal Direct Non-Salary Costs	0.00	0.00	0.00	0.00	0.00	0.00	$0	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	$16,681	0.00
9. Fixed Fee	0.00	0.00	0.00	0.00	0.00	0.00	$1,401	0.00
10. Total Work Assignment Price	0.00	0.00	0.00	0.00	0.00	0.00	$18,082	0.00

Project Manager (Engineer) _____ Date _____

Scedule 2.11 (h)

Date Prepared:

93 Main Street Site

Billing Period

Work Assignment Number D003600-40

Invoice No.

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/ 10	0/ 0	0/ 14	0/ 70	0/ 86	0/ 0	0/ 0	0/ 10	0/ 10	0/ 190
Task 2	0/ 4	0/ 0	0/ 16	0/ 92	0/ 238	0/ 0	0/ 64	0/ 22	0/ 22	0/ 436
Task 3	0/ 0	0/ 0	0/ 4	0/ 64	0/ 24	0/ 0	0/ 40	0/ 24	0/ 24	0/ 156
Task 4	0/ 12	0/ 0	0/ 164	0/ 260	0/ 22	0/ 0	0/ 608	0/ 84	0/ 84	0/ 1150
Task 5	0/ 6	0/ 0	0/ 0	0/ 80	0/ 26	0/ 0	0/ 40	0/ 16	0/ 16	0/ 168
Total Hours	0/ 32	0/ 0	0/ 198	0/ 566	0/ 396	0/ 0	0/ 752	0/ 156	0/ 156	0/ 2100

MBE/WBE
UTILIZATION PLAN
SUMMARY
93 Main Street Site
Work Assignment Number D003600-40

Areas to be Subcontracted	Subcontractor Name	MBE/WBE	Total Subcontract Value	% MBE/WBE Utilization
Survey new points	YEC, Inc. (MBE)	MBE	$2,394	0.7%
Property Survey	YEC, Inc. (MBE)	MBE	$7,667	2.1%
Sample Analysis	MITKEM, Inc. (MBE)	MBE	$38,085	10.5%
Pumping Test Assistance	Ecologic (WBE)	WBE	$4,480	1.2%
Reproduction	Jamaica Blue Print Co. (WBE)	WBE	$8,832	2.4%
Total MBE Utilization	MBE Subcontract Value / Total Contract Value	=	$48,146 / $316,094 *	15.2%
Total WBE Utilization	WBE Subcontract Value / Total Contract Value	=	$13,312 / $316,094 *	4.2%

* - Total contract value excludes $45,000 reserved for treatability study subcontractor that has yet to be determined.