WORK PLAN
REMEDIAL DESIGN
Pall Corporation (1-30-066)
30-36 Sea Cliff Avenue, Glen Cove
Nassau County, New York

Prepared for

New York State Department of Environmental Conservation

Prepared by:

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Section 1
Introduction

This Work Plan for the Pall Corporation site (Pall) was prepared by Camp Dresser & McKee (CDM) for the New York State Department of Environmental Conservation (NYSDEC) under the Engineering Services for Design and Construction Oversight, Standby Contract No. D006131. The Work Plan was developed in accordance with the *"Standby Contract Work Assignment No. D006131-4, Pall Corporation - Remedial Design (Site No. 130053B)"*.

The major focus of this work assignment (WA) is for the remedial design for remediation of contaminated soils and groundwater in Operable Unit No. 1 that includes the surface and shallow subsurface contamination as outlined in the March 2004 Record of Decisions (ROD) for the Site.

This Work Plan is comprised of the following sections and subsection:

- **Section 1-Introduction**

  This section presents a brief site description and history, the location, operational and remedial history, and the project objectives.

- **Section 2-Scope of Work**

  This section presents a detailed breakdown of the scope of work for the following major tasks associated with this WA:

  - Task 1 - Work Plan Development, Site Visit, and Existing Data Review
  - Task 2 – Pre-Design Sampling and Testing
  - Task3 – Conceptual Site Model
  - Task 4 – Remedial Design

- **Section 3-Project Schedule**

  A proposed project schedule for the performance of the above tasks is presented in this section.

- **Section 4-Budget Estimate**

  A detailed WA budget is presented in Appendix B, the project Schedule 2.11, itemized by tasks and sub-tasks in accordance with the CDM's budget reporting requirements, cost rates and factors contained in the base contract.

- **Section 5-Subcontracting**

This section identifies the services provided by CDM subcontractors including the name and location of each proposed subcontractor under this WA.

- **Section 6- MBE/WBE Utilization Plan**

  The Minority Business Enterprise (MBE) and Woman Business Enterprise (WBE) Utilization Plan is presented in this section. CDM's subcontractors have been selected to provide quality and cost-effective services while also making a good faith effort to achieve the contract-specific MBE/WBE utilization goals.

The following appendices are also included in this Work Plan:

- **Appendix A - Health and Safety Plan**

  The site specific Health and Safety Plan (HASP) presented in Appendix A specifies the health and safety procedures to ensure safe work practices are employed through the length of the project. CDM has submitted our Corporate Health and Safety Program Manual to NYSDEC under separate cover.

- **Appendix B - Schedule 2.11s**

  The Schedule 2.11s for the Pall site are presented in Appendix B and contain a detailed cost estimate by task and subtask of all work elements contained in this work assignment.

- **Appendix C – Subcontractor Pricing Back-up**

- **Appendix D - M/WBE-EEO Work Plan**

1.1 Site Information

The following subsections provide a brief description of the Pall Corporation site, herein referred to as "the Site", and provide a brief overview of the operational history.

The Site is located at 30-36 Sea Cliff Avenue in the City of Glen Cove, Nassau County, New York. The Site is approximately 4.6 acres in size and contains two industrial buildings. The 30 Sea Cliff is currently unoccupied and August Thomsen occupies 36 Sea Cliff where they currently manufacture pastry bags. The remainder of the site is mainly paved asphalt. Residential, commercial and industrial properties are located in the vicinity of the Site. A day care center borders the Site on the north, Glen Cove Creek forms the border to the west, the Glen Cove Arterial Highway to the east and Sea Cliff Ave to the south.

The 30 Sea Cliff building was constructed in 1918 and used as an ice house. Pall Corporation purchased the building in 1953 and occupied the building until 1999.

Pall constructed 36 Sea Cliff in 1958 and occupied that building until 1977 when Pall sold it to August Thomsen.

Under the State Superfund Program, a remedial investigation was conducted between February 1998 and July 2000 and a Feasibility Report in October 2001. A pilot study test and report was completed in 2003.

Section 2
Scope of Work

2.1 Task 1 - Work Plan Development, Site Visit, and Data Review

2.1.1 Work Plan Development and Site Visit

This Work Plan outlines in detail the tasks to be completed as part of the Pall Corporation remedial design project. It includes a site specific Health and Safety Plan (HASP) presented in Appendix A. The HASP describes the site health and safety for the field activities that will be performed. CDM's Generic QAPP has been submitted and approved by NYSDEC and is not included in this document.

The following sections and subsections clearly define CDM's scope of work as defined in work assignment D006131-4 dated August 13, 2008 and discussed during our initial meeting with NYSDEC's project manager, Mr. Jeff Dyber and subsequent meeting and site walk on September 9, 2008. In addition, this work plan also includes the Schedule 2.11 cost breakdown for each task in Appendix B.

2.1.2 Background Review

CDM will review the background information for the Site that includes at a minimum the following documents:

- Phase II Remedial Investigation Report, July 2000;
- Feasibility Study Report, October 2001;
- March 2004 Record of Decision;
- Final In-situ Chemical Oxidation, Phase I Pilot Test Report, October 2003;
- In-Situ Chemical Oxidation Phase II Pilot Test and Source Evaluation Report, September 2006.
- Other site related documents provided by NYSDEC on the Photocircuits Site.

This information will be reviewed by the project manager and other key personnel that will be involved with remediation oversight.

2.2 Task 2 – Pre-Design Sampling and Testing

CDM has reviewed data for both the Pall site and information that was made available for the Photocircuits site. There are data gaps that exist both on the Pall site and between the Pall and Photocircuits sites that need to be evaluated prior to a full design and remediation being implemented. The following sections and subsections outline CDM's approach to closing the data gaps so a design can be completed.

The tasks that are outlined below included the following:

- Pre-design groundwater measurement, sampling, and analysis both on and off-site at the following wells; MW-2GS/I/D, MW-2A/I/D, MW-10S/P/D,

MW-12PS/I/D, MW-4PS/I/D, MW-8PS/I, MW-8, MW-14PCD, and MW-6. Wells may be added or deleted depending on observed field conditions.

- Soil sampling and analysis at several source areas at the Pall site to fill in data gaps
- Hydraulic testing that may include pump tests and/or tracer testing both on and off-site.
- Development of a site conceptual model

CDM's Generic Quality Assurance Project Plan (QAPP) and Corporate Health and Safety Plan have been provided to NYSDEC under a separate cover. The QAPP provides detailed means and methods for site characterization activities.

All investigation derived waste (IDW) generated as part of the pre-remedial design will be handled by an IDW subcontractor. Prior to transportation and disposal of IDW from the site, CDM will submit the transporter and disposal facility name and EPA ID numbers to the NYSDEC PM. CDM is proposing to use Innovative Recycling Technologies, Inc. for IDW transportation and disposal

2.2.1 Groundwater Measurement, Sampling and Analysis

Groundwater samples were last collected at the site in 2006; therefore a round of groundwater samples from a limited number of wells will be collected and analyzed for the contaminants of concern at the site, i.e. volatile organic compounds (VOC) including Freon. Table 2-1 provides a summary of the samples to be collected and the analytical methods. The objective of this sampling event is to confirm that the nature and extent of groundwater contamination is substantially similar to what was found previously so that an effective, efficient remediation can be designed.

A total of 12 monitoring wells will be sampled at the Pall site and up to 8 wells at the Photocircuit site. Figure 3-1, taken from the Dvirka and Bartilucci RI/FS Work Plan, shows the proposed wells to be sampled at the Pall site. Prior to groundwater sampling, a synoptic round water level measurements on the Pall, Photocircuits and Glen Cove properties will be performed for hydraulic head mapping and interpretation. At a minimum, the depth to water at all monitoring wells at each site will be measured; however, the wells that were installed at Pall for the pilot studies (prefix "PT") may not be measured due to the large number of such wells in a small area. The field team will gauge as many wells as possible in one day.

Groundwater sampling procedures are detailed in the Generic QAPP. Groundwater will be sampled by low-flow methods and samples will be submitted to a certified laboratory for analysis for VOC analysis. Samples for bio-geochemical parameters will be collected via low-flow sampling prior to VOC sample collection. A flow-through cell will be used with the field meter probe positioned inside. Field meter parameters will include: pH, dissolved oxygen, redox potential, and conductivity. The final, stabilized field meter readings will be reported. Ferrous iron will be measured for each sample using a field test kit by Hach. The following standard laboratory analyses will be performed in addition to VOCs and Freon: TOC, DOC,

COD, BOD, nitrate, sulfate, phosphate, total alkalinity, total iron, and Priority Pollutant metals. Lastly, the following analyses with very low detection limits will be performed for methane, ethane, and ethene.

2.2.2 Soil Boring Sampling and Analysis

Additional soil borings will be performed using direct push drilling methods to investigate potential source areas for residual soil contamination in the vadose zone, and investigation of the deeper strata to determine the bottom of the upper glacial aquifer. Twenty one test boring locations are proposed as shown on Figures 3-3 and 4-2 taken from the Enviroscience Phase II RI

Soil borings will be advanced by direct push drilling methods. Drilling and sampling will be performed in accordance with the Generic QAPP. Each soil sample will be characterized by an on-site CDM geologist. Depth, soil type, moisture, evidence of contamination (photoionization detector readings, visual evidence etc.) will be recorded. Soil borings will be advanced to a depth of approximately 30 to 40 feet; the borings will terminate on silty strata in the subsurface.

For budgetary purposes, it is assumed that this activity will require ten days in the field. Up to two soil samples in each of boreholes will be analyzed for VOCs, including Freon. In addition, a maximum of six soil samples (two from each depth interval of interest) will be analyzed for total organic carbon (TOC) and metals. Table 2-1 provides a summary of the analytical methods and number of samples for the pre-design soil analyses.

Soil borings will also be performed on grids at three areas in order to fill in apparent data gaps. These data gaps include:

- Delineation is required around previous boring 5-SB-15, where tetrachloroethylene (PCE) was found at a concentration of 950 mg/kg, post SVE remediation at this location. Boring 5-SB-15 was installed at the west corner of a grid; additional delineation samples are necessary to the northwest and southwest of this location to fully delineate this soil contamination.

- Characterization is required in the vicinity of the former TCE tank at the northwest corner of the August Thomsen building; Enviro-Sciences, Inc. determined that this area is a possible Freon source; however, it is not clear that Freon was typically analyzed in soil samples.

- Characterization and delineation are required in the vicinity of the metal shed drum storage area; where significant Freon has been detected in groundwater (150 ppm in SGB-21A and MW-4P). This location is upgradient of the former TCE tank area.

2.2.2.1 Borehole Clearing

Surface geophysical surveys will be used to clear boring locations of utilities in areas where the one-call service does not mark out utilities (i.e., the interior portions of private property), and to determine the northern limit of buried metal identified during the previous geophysical survey.

Supplemental geophysical surveys will be performed in accordance with the QAPP. The surveys will utilize ground penetrating radar (GPR) and electromagnetic conductivity (EC) or other applicable methods. Methods will be selected to identify underground utilities, water lines, buried drums, underground storage tanks and/or any large anomalies such as conduits. In the case of drilling locations, subsurface utilities will be marked within 15 feet of each proposed location to allow for the relocation of borings if necessary, for example due to refusal.

2.2.3 Review of Existing Hydraulic Testing Data

CDM will review the hydraulic data from the pilot tests conducted by APEX and Enviro-Sciences, Inc. The objective of this review is to evaluate horizontal and/or vertical hydraulic conductivity of the strata on site. A preliminary review of this data indicates that it may be possible to evaluate the horizontal hydraulic conductivity of the shallow and/or intermediate zones.

2.2.4 Hydraulic Testing - Aquifer Testing

A series of short pumping tests will be performed in order to further evaluate the horizontal and vertical hydraulic conductivity at the site. Information from the review of existing data will be incorporated into the test design if possible. The aquifer testing will be preceded by one week of antecedent monitoring at two well clusters (shallow-intermediate-deep). Following the antecedent monitoring, a series of short-term pumping tests will be performed. Each test will be performed by pumping an intermediate monitoring well approximately four hours while water levels are monitored in the pumping well, adjacent monitoring wells in the cluster, and monitoring wells in a nearby cluster.

A total of six pressure transducers, and an atmospheric pressure recorder, will be deployed at the site for two weeks (antecedent period plus pumping test period). In addition, a rain gauge will be deployed at the site and monitored daily. For costing purposes, it is assumed that each of five aquifer tests will require one working day, which will include a short step test in the morning to select the flow rate, followed by four hours of pumping after the well recovers to static, and recovery monitoring to 90 percent of static.

If there is sufficient existing information on well yield, it may be possible to eliminate one or more step tests. In addition, the actual pumping test durations may be shorter if water level changes of 0.3 feet or more are measured in the deeper strata (the 0.3

feet criteria is subject to change based upon ambient trends). If the tests are shortened, additional tests may be performed.

Precipitation events during the pumping periods may be cause for rescheduling the pumping tests. However, ambient monitoring during such periods will provide additional data to evaluate vertical influence. If the work is performed during freezing conditions, then temperature will be recorded periodically each day, and freezing/thawing ground conditions will also be noted.

2.2.5 Hydraulic Testing - Tracer Testing

CDM will design and perform a fluorescent tracer test to evaluate groundwater flow at the site. The objective of the tracer test is to characterize contaminant transport onto the site from an upgradient source. Upgradient groundwater at the Photocircuits site is contaminated with similar volatile organics as the Pall site, with the highest concentrations in the deeper strata. Due to a reported upward gradient at the Pall site, there is concern that the shallow and intermediate strata to be remediated will be re-contaminated by deep groundwater emanating from off-site and migrating upward into the shallower strata. The tracer test will be designed to evaluate this scenario after completion of the hydraulic testing.

Once CDM has completed the hydraulic testing and evaluated the data, we will prepare a detailed scope for the tracer testing and submit to the NYSDEC project manager for review and approval prior to implementing the testing. For costing purposes, the tracer test is assumed to require collection of groundwater samples for dye analysis for a period of 28 weeks after dye injection.

2.3 Task 3 - Site Conceptual Model

Using the existing and new information gathered in Task 2 above, CDM will develop a site conceptual model for the groundwater plumes both on- and off-site. The model will integrate groundwater hydrogeology, chemistry, and biology data to generate an understanding of plume geometry and behavior. The model will then become a critical element in CDM's design of a selected remedy.

CDM will further compile and review existing environmental data for the Pall site, Photocircuits site and general local area hydrogeology. We will make use of existing data to the maximum extent possible, contingent upon its reliability and completeness. The additional collected data by CDM during the pre-design sampling and analysis (Section 2.2) will be integrated into the site conceptual model. At a minimum, the results will allow us to identify suspected and known sources; estimate the outlines of the plumes in three dimensions; and describe plume migration and transformation behavior.

In addition to a site conceptual model, a numerical model will also be utilized. In the late 1980s, CDM developed a regional groundwater model for Nassau County to be used as a planning tool for the County. This model was updated and re-calibrated in

2003 as part of the Source Water Assessment Program for Nassau and Suffolk Counties (Figure 1). The model was calibrated to groundwater head as measured by Nassau County Department of Public Works and stream flow (including Glen Cove Creek) as measured by the USGS. The model is a three-dimensional finite element model (DYNSYSTEM) and incorporates all aquifer units from Queens and into Suffolk County.

CDM proposes to use the Nassau County groundwater model to evaluate the regional groundwater flow in the project area. The regional model grid spacing in the study area is on the order of 1,500 feet, which is too coarse for a sub-regional analysis (Figure 2). The model grid will be refined to better refine groundwater flow within the project area. In addition to adding nodes to improve horizontal discretization, model levels will be added to the model to better represent vertical groundwater flow.

The geologic stratigraphiy of the study area is fairly complex, involving numerous thin layers of silt and clay. The stratigraphic framework of the Nassau County groundwater model is represented using nine model layers, incorporating major aquifer units and geologic features. The stratigraphic framework is based on regional geologic mapping as published by the USGS and updated somewhat to project specific projects for which CDM has been previously involved. The regional hydrogeologic framework will be used for this analysis. If the project team, through further geologic interpretation, feel that a particular clay or silt layer be significant, it will be incorporated into the model as a sensitivity simulation. The refined model grid will be intersected with the Digital Elevation Model (DEM) in the area to better represent topography and baseflow to Glen Cove Creek. Groundwater head and flow direction will be compared with published head maps for verification (Figure 3).

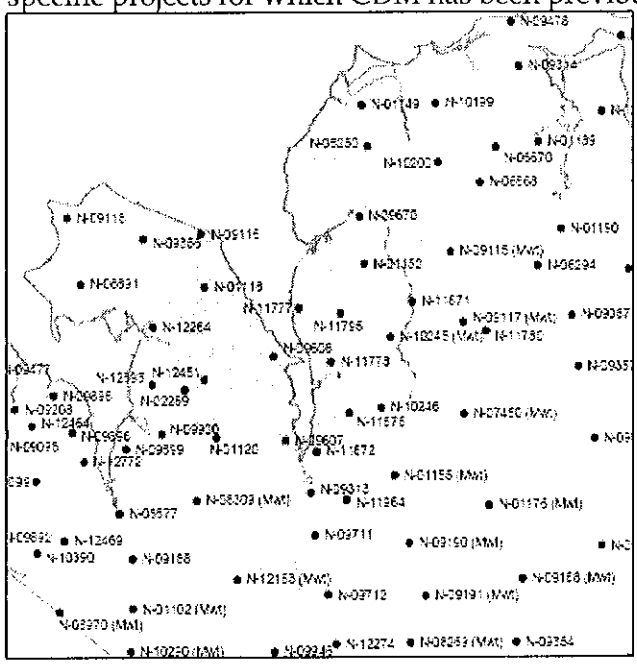


Figure 3 Water table elevations, September 2003 (from Nassau County Groundwater Monitoring Program 2000-2003 with Historical Information)

Currently, remediation pumping at the Photocircuits site is not incorporated into the model. All available remediation pumping from the site will be incorporated.

Particle Tracking Analyses

Groundwater flow direction and travel time from the Photocircuits site as well as the Pall Corporation will be evaluated using particle tracking analyses. Particles will be released from the water table as well as at depth from both sites to evaluate groundwater flow. In addition, particles will be released at the well screen of particular groundwater monitoring wells and will be allowed to flow backwards until the water table is reached. This analysis will help the project team understand possible source area(s) to different monitoring wells and may help explain contaminant sources. CDM will develop a well database for the model which will contain well coordinates and screen intervals for use in the model. A particle tracking simulation will also be conducted that releases particles at the Photocircuits site from the onset of documented groundwater contamination. It is anticipated that up to 10 particle tracking simulations will be conducted.

All groundwater model simulations will be QA/QC'd by a senior groundwater modeler. A brief technical memorandum will be prepared that documents the model results.

2.3.1 Review Pre-Design Sampling and Remedy Conceptual Design

Once CDM completes all the pre-remedial design sampling and analysis, we will conduct a final review of the new data and all existing data and prepare a conceptual design for the selected remedy. The conceptual design will be based on relevant factors including ease of implementation, applicability to the entire list of VOCs of concern, ability to achieve cleanup standards in the ROD, environmental sustainability, cost, etc. Our understanding of the plumes, based on the site conceptual model, will be critical to the conceptual design.

CDM will select an insitu remedy consistent with the ROD that will be used in the remedial design, based on identify existing on-site and off-site sources and if there is a need for source control/removal prior to site plume remediation and that will achieve the remedial goals outlined in the ROD.

If CDM determines through the conceptual design that changes are need to the selected remedy to achieve the remedial objectives outlined in the ROD, we will thoroughly review applicable insitu remedies outlined in the ROD and other available technologies based on CDM's experience and compare the pros and cons of additional treatment technologies to the current remedy.

2.4 Task 4 – Remedial Design and Bidding Services

The following tasks outline the general design process steps:

- Development of the overall design strategy
- Determination of the key design criteria
- Design analysis
- Verification, review, and approval of the design
- Development of the final design package

2.4.1 30 % Basis of Design Report/Preliminary Design

CDM will prepare a preliminary design (30%) package for NYSDEC review and comments. For the preliminary design, CDM will provide a complete drawing list and design drawings showing the preliminary layout of the proposed insitu remedy and any supporting documentation including cut sheets. A list of specifications will also be included, but no specifications will be part of this design package.

CDM will prepare a Basis of Design Report (BODR) to present the design approach and define in detail the technical parameters on which it will be based. As part of the BODR design, CDM will perform the following activities:

- Prepare design calculations, a detailed description of assumptions, a plan for minimizing impact of the public and the environment, and permitting requirements
- Provide recommendations for the project delivery strategy and scheduling
- Prepare a specifications outline that includes all specifications to be used
- Prepare preliminary drawings, including an index of proposed contract drawings and a site plan
- Describe variances from the ROD, if any

CDM will submit 3 copies of the preliminary design to NYSDEC for review and comment. CDM will meet with NYSDEC to review the 30% design and address comments.

2.4.2 60% Design and Preliminary Cost Estimate

CDM will prepare the 60% design package that will address the comments to the 30% design provided by NYSDEC. The 60% submittal will include a complete set of construction drawings and draft specifications and a revised BODR. All specifications will conform to Construction Specifications Institute (CSI) format and will include the NYSDEC boilerplate contract requirements with site-specific information completed by CDM. CDM will coordinate and cross-check all specifications and drawings and submit to the NYSDEC.

2.4.2.1 Preliminary Construction Cost Estimate

CDM will provide an Estimated Probable Cost of Construction covering each work item and activity based on engineering data. As part of this cost estimate, CDM will include one copy of the quantity takeoff sheets, including all appropriate items, with each estimate submitted.

CDM will submit 3 copies of the 60% design documents to NYSDEC for review and comment. Once comments are received, CDM will participate in a 60% design review meeting with NYSDEC.

2.4.3 Final Design and Construction Cost Estimate

CDM will prepare a Final Design and incorporate all NYSDEC review comments into the final design, as necessary. All final design documents will be stamped by a Professional Engineer registered in the State of New York. NYSDEC's approval of the final design is required before initiating the RA, unless specifically authorized by the NYSDEC. This final submittal will include a complete set of construction drawings and specifications and a basis of design report. All specifications will conform to CSI format. NYSDEC boilerplate contract requirements have been provided to CDM and CDM will complete all site-specific information required in these documents for inclusion in the final design documents. CDM will provide NYSDEC with up to 50 copies of the final design documents for bidding.

2.4.3.1 Final Cost Estimate

CDM will base the final estimated probable construction cost on the final approved plans and specifications. The final estimate will reflect current prices for labor, materials, and equipment. Unit prices, overhead, profit, and other categories will be shown as separate items. The estimate will separately identify contingencies within the defined project scope.

2.4.4 Pre-Bid Services

The following tasks outline pre-bid services to be provided by CDM.

2.4.4.1 Pre-bid Conference

CDM, in conjunction with the NYSDEC will attend the pre-bid meeting to be held at the site with the prospective bidders. The CDM PM will attend the meeting and provide technical support to the NYSDEC. CDM will assist the NYSDEC with answering questions, taking notes and assist with providing input to the meeting minutes. CDM will also prepare a Question & Answer document to be developed and submitted to all bidders in attendance.

2.4.4.2 Addenda Preparation

CDM will prepare up to two addenda as part of the pre-bid services. CDM will submit the addenda to NYSDEC for review and NYSDEC will issue the addenda to the bidders.

2.4.4.2 Bid Review

CDM will review all bids received by the NYSDEC and provide recommendation for award based on the lowest responsible bidder. We will prepare a bid summary table summarizing the cost and documents received as part of the bid package in accordance with the contract documents.

Section 3
Project Schedule

The following table provides the proposed project schedule and key milestones for this work assignment. The schedule below is based on NYSDEC proposed schedule in the work assignment documents and CDM's estimate to complete each task including review of design documents by NYSDEC.

Project Milestone	Date Completed
Issue Work Assignment (WA)	August 26, 2008
Conflict of Interest Complete	September 9, 2008
Site Walk - Initial Kick-off Meeting with NYSDEC PM to Review Scope	September 10, 2008
Review of existing data - Submit Draft Work Plan (Task 1) to NYSDEC PM for Review and Comment	January 16, 2009
NYSDEC Comment on Draft Work Plan	January 23, 2009
Submit Final Work Plan to NYSDEC	February 11, 2009
Notice to Proceed (NTP)	February 20, 2009
Task 2 – Pre-Design Sampling and Analysis	
Task 2.1 – Groundwater Measurement and Sampling	March 27, 2009
Task 2.2 – Soil Boring Supplemental Investigation	March 27, 2009
Task 2.3 – Hydraulic Testing	April 24, 2009
Task 2.4 – Tracer Testing	November 30, 2009
Task 2.5 – Pre-Design Sampling Report (not including Tracer Test Results)	September 30, 2009
Task 3 – Site Conceptual Model	May 30, 2009
Task 4 – Remedial Design*	To Be Determined

*CDM will submit a remedial design schedule to NYSDEC upon completion of the Pre-design sampling report.

Section 4
Budget Estimates

Below is CDM's proposed budget summary table and cost assumptions. Appendix B presents the detailed costs by task and subtask on the NYSDEC Schedule 2.11s.

Estimated Budget and Level of Effort (LOE) Summary
Pall Corporation Site – Supplemental SI/Site Conceptual Model
City of Glen Cove, Nassau County, New York
Site No. 1-30-053B

Task Items	Description/Cost	Dollars
1	Work Plan Development /Information Review/Site Visit/	$46,007
2	Supplemental Site Investigation	$197,199
3	Site Conceptual Model	$50,158
4	Remedial Design	$102,959
	Total Estimate Budget (Tasks 1 - 5)	**$396,324**

General Assumptions:

- All work will be performed in 2009.
- All costs are based upon the scope and schedule provided in this Work Plan. Costs associated with project delays or expedited schedules beyond CDM's control are not assumed.
- The scope, level of effort and cost is based on the NYSDEC work assignment dated August 26, 2008 and conversation with NYSDEC PM Mr. Jeffrey Dyber.
- No pilot study or bench scale testing costs have been included as part of this scope and cost.
- Access is permitted to the Photocircuits

Task 1 - Work Plan Development/Information Review/Site Visit:

- CDM will address one set of consolidated comments to the draft work plan and submit a final work plan approval.
- Project management, subcontractor procurement, scheduling, budgeting, administrative activities are included in this task.

- CDM has prepared a generic Quality Assurance Project Plan (QAPP) and Corporate Health and Safety Plan and both have been reviewed and approved by NYSDEC. The QAPP is updated as needed.

Task 2 -Pre-Design Sampling and Analysis:

- Additional information is needed to close data gaps and the sample locations for soil and groundwater are approximate and may be changed in the field.
- Access to Photocircuits site will be permitted to gauge and sample existing wells as part of the pre-design work.
- CDM has assumed a 28 week tracer test for this project

Task 3 - Site Conceptual Model:

- CDM will develop a site conceptual model using existing and new data
- We have assumed that data from Photocircuits will be included as part of the model.

Task 4 -Remedial Design:

- The remedial design cost does not include a pilot study or bench scale testing for the selected remedy, if necessary.
- Remedial design assumes an insitu remediation technology will be used to remediate the site.

Section 5
Subcontracting

The Schedule 2.11s for each subcontractor are provided in Appendix B and subcontractor pricing backup in Appendix C. CDM proposes to engage subcontractors to provide the services outlined in the following subsections.

5.1 Analytical Laboratory - Upstate Labs

CDM is proposing to use the Upstate Labs as the analytical laboratory subcontractor for the Pall site for the environmental sampling analysis task under the supplemental site work. They are located in East Syracuse, New York.

5.2 Investigation Derived Waste - Innovative Recycling Technologies

CDM is proposing to utilize Innovative Recycling to provide removal and disposal of investigation derived waste. This includes soil cuttings and all water produced under the supplemental site investigation work. They are located in Lindenhurst, New York

5.3 Data Validation - Conestoga-Rover & Associates

CDM is proposing to utilize Conestoga-Rover & Associates to provide data validation services for the analytical data collected during the environmental sampling task. They are located in Niagara Falls, NY.

5.4 Geoprobe - Aztech Technologies Inc.

CDM is proposing to utilize Aztech Technologies Inc. to provide Geoprobe services for collected soil samples by direct push during the environmental sampling task. They are located in Ballston Spa, NY.

5.5 Dye Testing Lab - Crawford Hydrology Lab

CDM is proposing to utilize Crawford to provide the dye for injection into the groundwater and analysis during groundwater testing for 28 weeks during the tracer testing. They are located Bowling Green, Kentucky.

5.6 Dye Injection - Earth Data Northeast

CDM is proposing to utilize Earth Data to inject the dye into the selected wells during the tracer testing. They are located in Exton, PA.

5.7 Geophysical Survey - Advanced Geological

CDM is proposing to utilize Advanced Geological to provide geophysical survey of site utilities prior to drilling. All Geoprobe locations will be cleared by Advanced prior to sampling. They are located in Malvern, PA.

Section 6
MBE/WBE Utilization Plan

To meet the requirements of the MBE/WBE program, CDM has prepared the following utilization plan. An M/WBE-EEO work plan is provided in Appendix D.

Under the NYSDEC Standby contracts CDM has established master service agreements with both M/WBE and non-M/WBE subcontractors for laboratory and data validation. CDM utilizes our laboratory and data validation subcontractors by rotating through the standby list as requested by the Department. CDM continues to try to identify M/WBE labs with the proper certifications in NYS to add to our list of standby laboratory subcontractors.

CDM solicited price quotes for all subcontractor services including those on our standby list and selected the lowest price subcontractors. A copy of the bid comparisons for the work assignment for all services provided are in Attachment C.

Total Dollar Value of the work assignment	**$396,324**
MBE Percentage Goal	15%
MBE Dollar Value Goal	$59,448
MBE Dollar Value Proposed	$0
MBE Percentage Proposed	0%
WBE Percentage Goal	5%
WBE Dollar Value Goal	$19,816
WBE Dollar Value Proposed	$20,697
WBE Percentage Proposed	5.2%
Combined M/WBE Percentage Goal	20%
Combined M/WBE Dollar Value Goal	$79,264
Combined M/WBE Dollar Value Proposed	$20,697
Combined MBE/WBE Percentage Proposed	5.2%

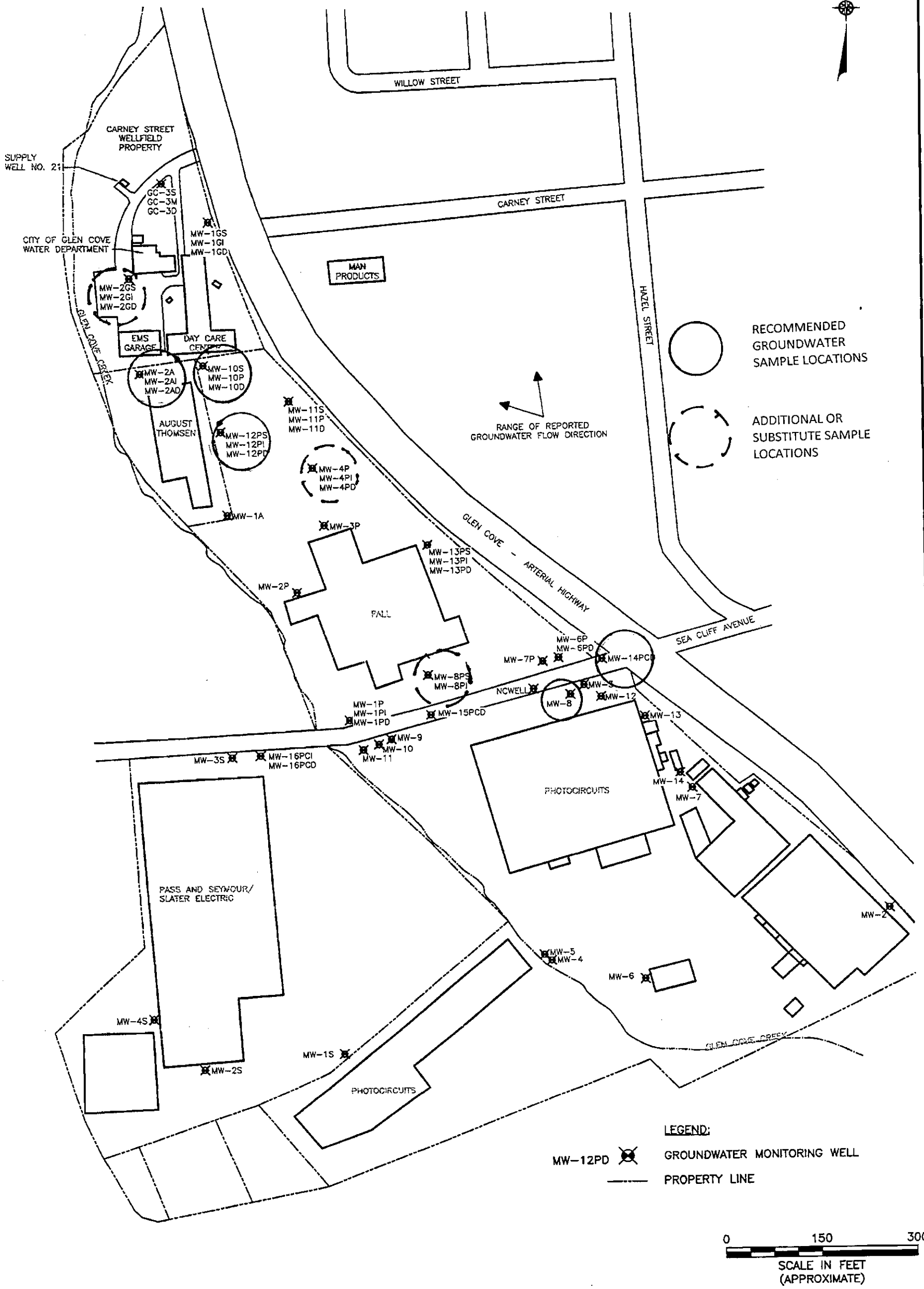
Minority and woman-owned firms are expected to participate as follows:

Services to be Provided	Subcontractor Name and Contact Information	M/WBE	Proposed Subcontract Price
Geoprobe	Aztech Technologies	WBE	$17,897
Dye Injection	LAWES	WBE	$2,800

Table 2-1
Analytical Sample Summary
Pall Corporation Site
Glen Cove, New York

Analytical Parameter	Sample Matrix	Number of Samples	Analytical Method	Field Duplicates (a)	Ambient Air Sample (b)	Field Blank (c)	Trip Blanks (d)	Container (e)	Sample Preservation	Holding Time
Task 2 - Groundwater Sampling										
Groundwater Samples from wells										
VOCs + Freon 8260B	Groundwater	18	VOA 8260B	2	–	1	1	3 - 40ml clear glass vial with Teflon septum	HCl to pH <2; Cool to 4°C	14 days
TOC	Groundwater	12	EPA 415	0	–	0	0	3 - 40ml clear glass vial with Teflon septum	HCl to pH <2; Cool to 4°C	28 days
Dissolved Organic Carbon	Groundwater	12	SM5310 or EPA 3050	0	–	0	–	3 - 40ml clear glass vial with Teflon septum	HCl to pH <2; Cool to 4°C	28 days
COD	Groundwater	12	EPA 410.4	0	–	0	–	125 ml polyethylene or glass	Cool to 4°C	28 days
BOD	Groundwater	12	EPA 405.1	0	–	0	–	2L polyethylene	Cool to 4°C	48 hours
Nitrate	Groundwater	12	EPA 353.2	0	–	0	–	250ml polyethylene	Cool to 4°C	48 hours
Sulfate	Groundwater	12	EPA 375.4	0	–	0	–	250ml polyethylene	Cool to 4°C	48 hours
Phosphate	Groundwater	12	SM4500P-E	0	–	0	–	100ml polyethylene or glass	Cool to 4°C	7 days
Total Alkalinity	Groundwater	12	EPA 310.1	0	–	0	–	300ml polyethylene or glass	Cool to 4°C	14 days
Total Iron	Groundwater	12	EPA 200	0	–	0	–	300ml polyethylene or glass	Cool to 4°C, HNO_3 to pH<2	6 months
Piority Pollutant Metals	Groundwater	12	EPA 6010	0	–	0	–	300ml polyethylene or glass	Cool to 4°C, HNO_3 to pH<2	6 months
Methane/ethane/ ethene (g)	Groundwater	12	AM20GAX	0	–	0	–	300ml polyethylene or glass	Cool to 4°C	6 months
Task 2 - Soil Sampling										
TCL VOCs + Freon	Soil	48	EPA 8260B	4	–	0	0	3 - 40ml clear glass vial	HCl to pH <2;	14 days
TOC	Soil	6	EPA 415	1	–	0	–		None	28 days
PP Metals	Soil	6	EPA 3050 (digestion) & EPA 6010	1	–	0	–		None	28 days
Task 4 - Vapor Intrusion Sampling- Five Location, one subslab & One indoor air per location and one ambient air sample per day										
VOCs	Air	15	TO-15	2	–	0	0	6-liter SUMMA canister	None	30 days
TASK 2 - IDW Disposal Samples										
Soil and drill cuttings during well EW-1 installation										
RCRA characteristics	Soil	2	RCRA characteristics	-	-	–	–	8-Ounce Glass Jars	None	30 days

Notes:
(a) A minimum of 5% of all samples will be collected in duplicate.
(b) Ambient air samples will be collected at each structure where indoor air sampling is being conducted.
(b) Groundwater field blanks are collected at a frequency of 1 per day.
(d) Trip blanks are collected at a frequency of 1 per sample cooler or 1 per every five days.
(e) Cannister should be used within 15 days of being shipped to the field for sample collection.
(f) SUMMA canisters containing samples are not spiked in the field.
(g) Microseeps laboratory -- sole source



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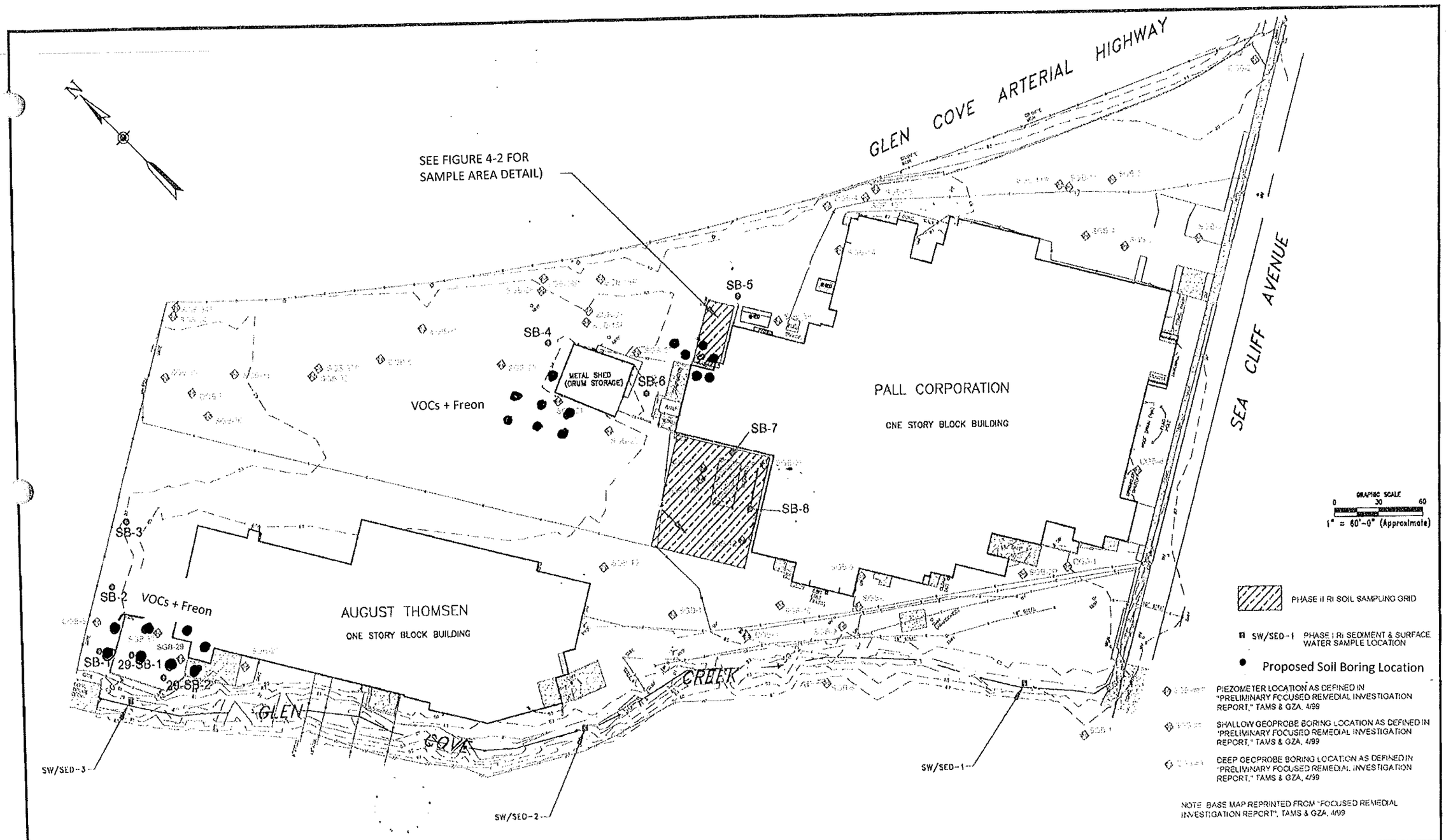
Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

PALL AND PHOTOCIRCUITS CORPORATIONS RI/FS
GLEN COVE, NEW YORK

LOCATIONS OF EXISTING MONITORING WELLS

FIGURE 3-1



ENVIRO-SCIENCES, INC.
312 EAST MAIN STREET
PATCHOGUE, NEW YORK 11772
PHONE: 631-207-9005 FAX: 631-207-3614

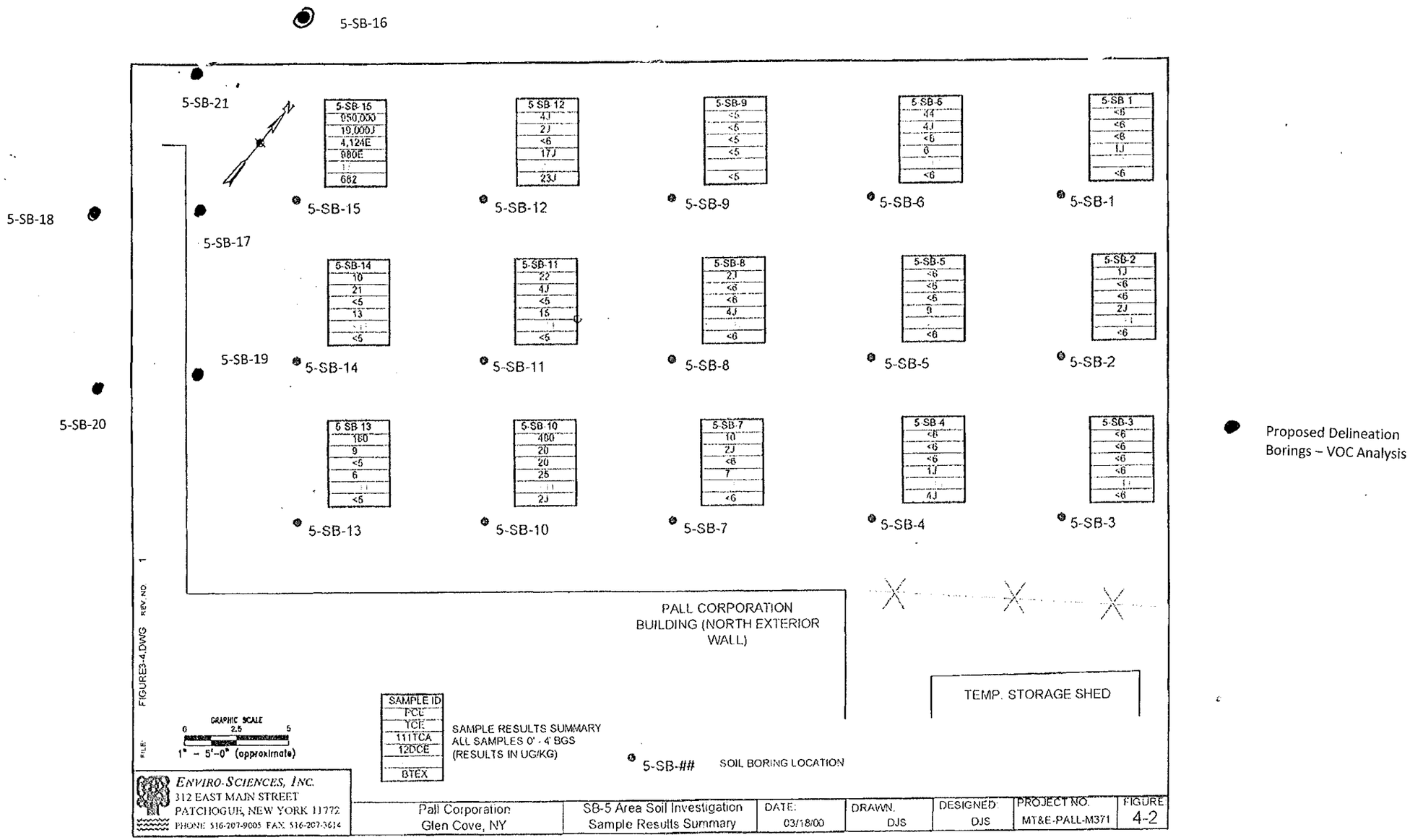
PALL

Pall Corporation
30 Sea Cliff Avenue
Glen Cove, New York 11542

Phase II Remedial Investigation Soil Boring Locations
(On-Site Investigation)

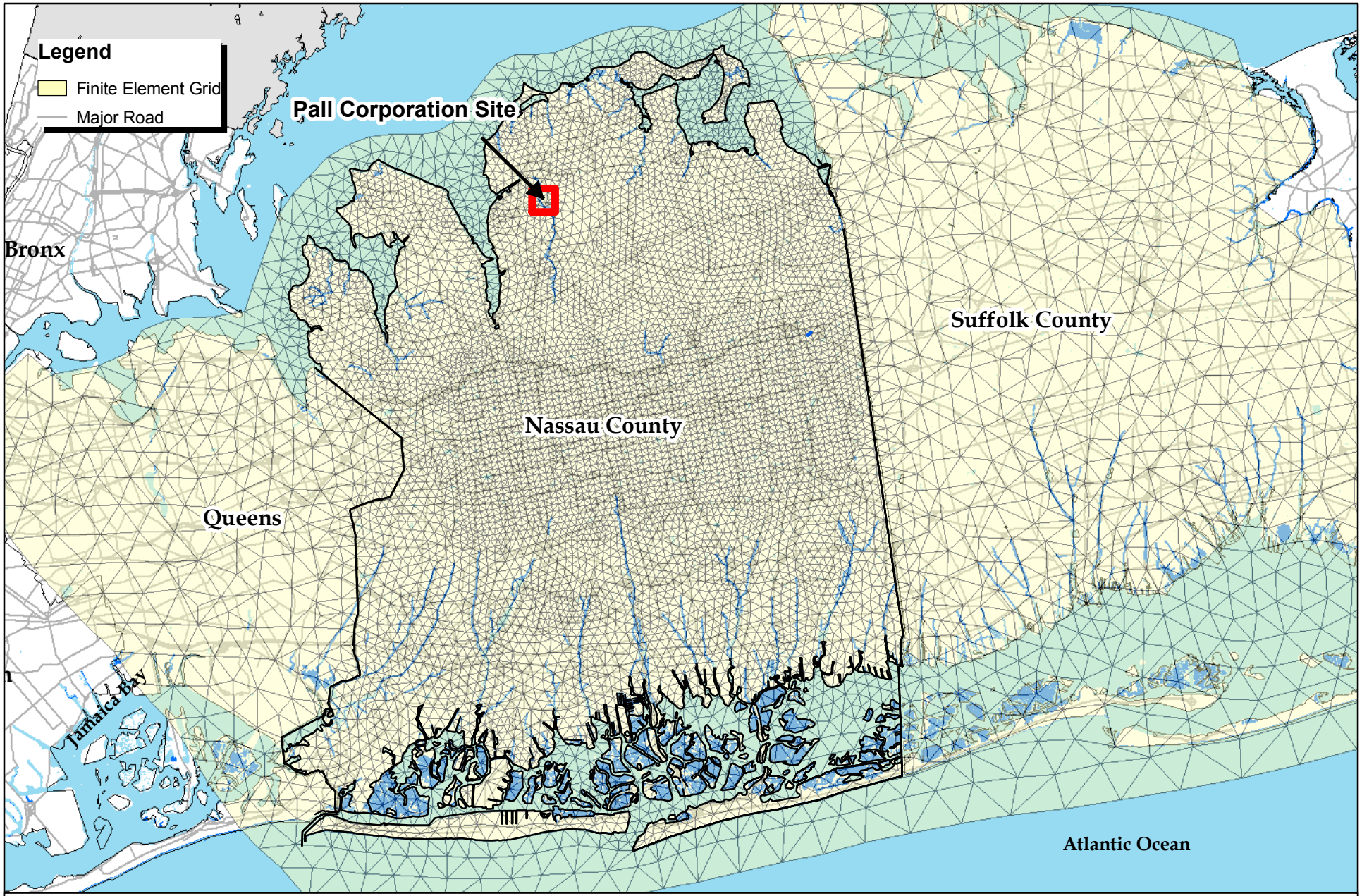
DATE:	3/12/00	DRAWN:	DJS
REV. NO.	1	DESIGNED:	DJS
PROJECT NO.	MT&E-PALL-M371	FILE:	FIGURE3-3.DWG

FIGURE: 3-3



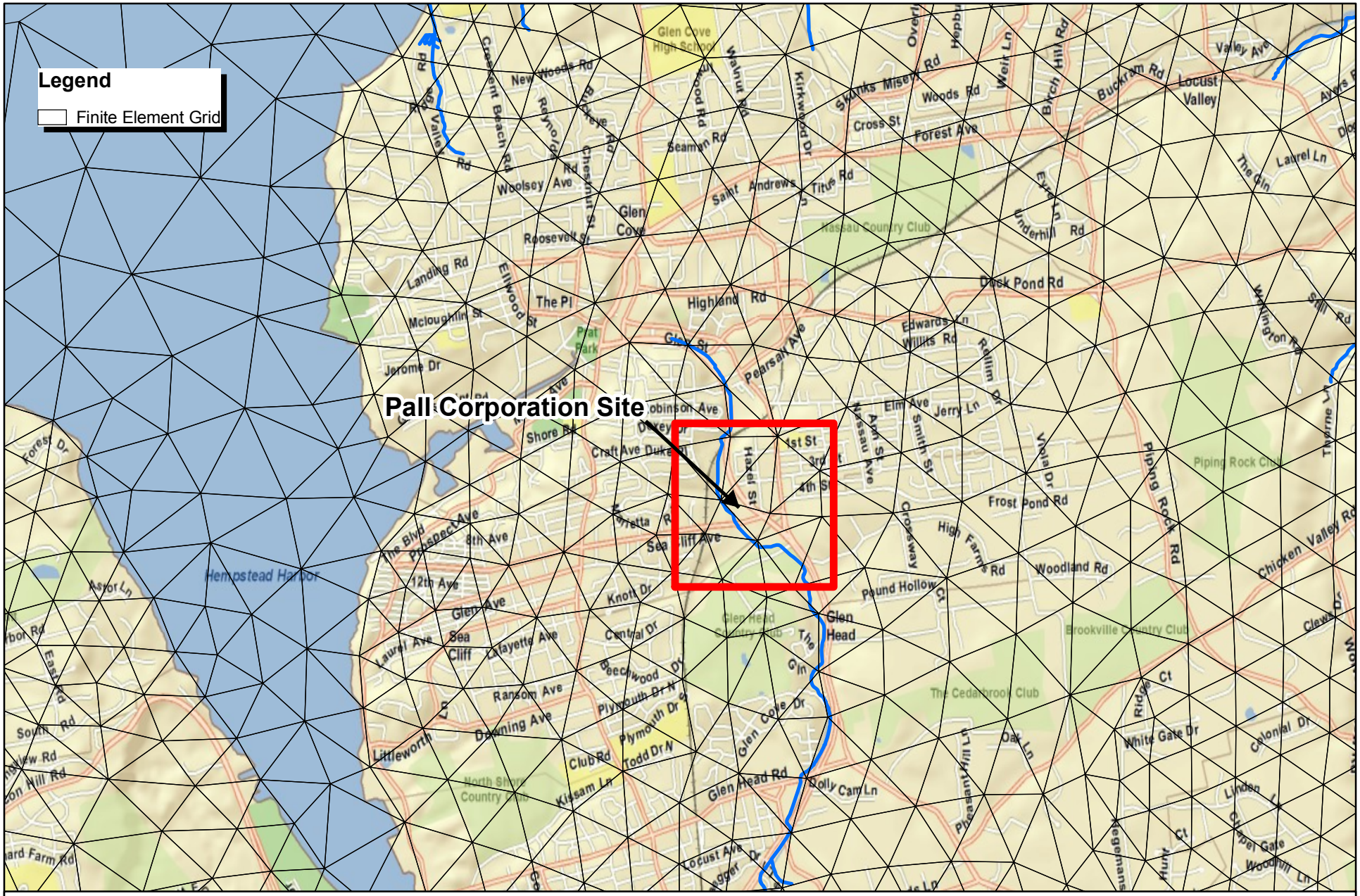
ENVIRO-SCIENCES, INC.
312 EAST MAIN STREET
PATCHOGUE, NEW YORK 11772
PHONE 516-207-9005 FAX 516-207-3614

Pall Corporation Glen Cove, NY	SB-5 Area Soil Investigation Sample Results Summary	DATE: 03/18/00	DRAWN. DJS	DESIGNED: DJS	PROJECT NO. MT&E-PALL-M371	FIGURE 4-2



CDM

Figure 1
Nassau County Regional Groundwater Model
Finite Element Grid



CDM

Figure 2
Nassau County Regional Groundwater Model
Finite Element Grid at Pall Corporation Site

Appendix A
Health and Safety Plan

HEALTH AND SAFETY PLAN FORM
CDM Health and Safety Program

This document is for the exclusive use of CDM and its subcontractors

CDM (Camp Dresser & McKee)
PROJECT DOCUMENT #: 0897

PROJECT NAME	Pall Corporation Site No: 130053B	**PROJECT#**	D-006131-4	**REGION**	PSG NER
SITE ADDRESS	30-36 Seacliff Avenue Glen Cove, NY 11542	**CLIENT ORGANIZATION** **CLIENT CONTACT** **CLIENT CONTACT PHONE #**		NYSDEC Jeffrey Dyber 518 / 402-9621	

( ) AMENDMENT TO EXISTING APPROVED H&SP?
( ) H&SP AMENDMENT NUMBER? _____ **( ) DATE OF PREVIOUS H&SP APPROVAL** _____

OBJECTIVES OF FIELD WORK:
(e.g. collect surface soil samples):

1) Measure GW elevations and sample GW monitoring wells

2) Sub-surface soil sampling using Geoprobe®

3) Hydraulic testing/pump testing

SITE TYPE: *Check as many as applicable*

Active	( )	Landfill	( )	Unknown	( )
Inactive	(X)	Uncontrolled	(X)	Military	( )
Secure	(X)	Industrial	(X)	Other (specify)	
Unsecure	( )	Recovery	( )		
Enclosed space	( )	Well Field	( )		

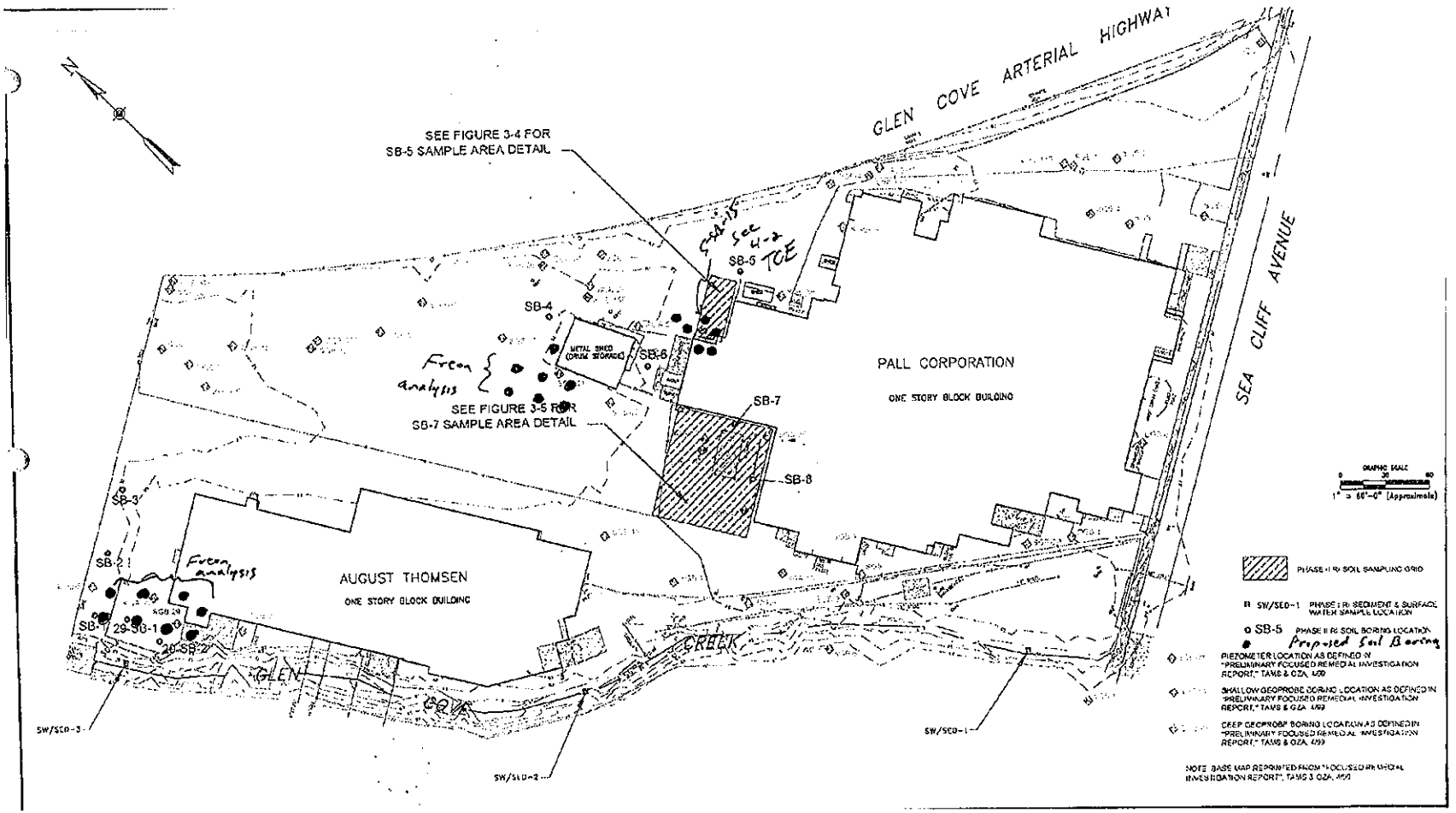
All requirements described in the **CDM Health and Safety Manual** are incorporated in this health and safety plan by reference.

PERSONNEL AND RESPONSIBILITIES NAMES OF WORK CREW MEMBERS	COMPANY or DIVISION	SUPERVISORY TRAINED?	PROJECT OR SITE RESPONSIBILITIES	Tasks On Site?
John Blaum	ERD	Yes/Level B	Work Assignment Manager	1-2-3-4-5-6
Eric Rosenzweig	ERD	Yes/Level C	Site Health & Safety Coordinator	1-2-3-4-5-6
Ricky Chenenko	ERD	Yes\Level B	2nd Health & Safety Coordinator	1-2-3-4-5-6
Phillip Dixon	WSD	No\Level C	Site Engineer	1-2-3-4-5-6
Paresh Patel	ERD	No\Level C	Site Engineer	1-2-3-4-5-6
			Site Technician	1-2-3-4-5-6
			Subcontractor	1-2-3-4-5-6

BACKGROUND REVIEW: ( ) Complete ( ) Incomplete

HEALTH AND SAFETY PLAN FORM	*This document is for the exclusive*	CDM (Camp Dresser & McKee)
CDM Health and Safety Program	*use of CDM and its subcontractors*	PROJECT DOCUMENT #:0897

SITE MAP: *Show Exclusion, Contamination Reduction, and Support Zones. Indicate Evacuation and Reassembly Points*



HEALTH AND SAFETY PLAN FORM	*This document is for the exclusive*	**CDM (Camp Dresser & McKee)**
CDM Health and Safety Program	*use of CDM and its subcontractors*	**PROJECT DOCUMENT #: 0897**

HISTORY: *Summarize conditions that relate to hazard. Include citizen complaints, spills, previous investigations or agency actions, known injuries, etc.*

The site is located in the Sea Cliff Industrial Area, an area that has been used for variable industrial processes from the 1940s to present. VOCs have been a concern at this site in the soil and groundwater due to spills associated with past practices. The contaminants of concern (COC) in both soils and groundwater are: PCE, TCE, 1,2 DCE , Vinyl Chloride, and Freon. During the Preliminary Site Assessment conducted by Nassau County Department of Public Works, the maximum groundwater PCE, TCE and 1,2 DCE concentrations have been reported as 140,000 ppb, 9,600 ppb and 15,000 ppb respectively. The NYSDEC In 1996, the NYSDEC listed the site as class 2 site in the registry of Inactive Hazardous Waste Disposal Site in New York (the Registry).The NYSDEC and the Pall Corporation entered into a Consent Order covering on-site contamination and RI/FS program. The RI was conducted between 1998 and 2000. Following the RI, two separate Insitu Chemical Oxidation pilot tests are conducted on site between 2004 and 2006. Currently NYSDCC and CDM are working on the remedial design to remediate the site for groundwater and soil contamination.

WASTE TYPES: (X) Liquid (X) Solid ( ) Sludge (X) Gas ( ) Unknown ( ) Other, specify:

WASTE CHARACTERISTICS: *Check as many as applicable.*

( ) Corrosive ( ) Flammable ( ) Radioactive

( ) Toxic (X) Volatile ( ) Reactive

( ) Inert Gas ( ) Unknown

( ) Other: _____

WORK ZONES:

The exclusion zone will include all points within 10 feet of the investigation activities or a sampling location. The contamination reduction zone will consist of a ten foot radius outside of the exclusion zone. The support zone will be a 10 foot radius outside of the CRZ. All zones are mobile, established in consideration of the prevailing wind direction and will be established and moved as work crew advances to new locations.

HAZARDS OF CONCERN: *Check as many as applicable.*

( ) Heat Stress CDM Guideline (X) Noise CDM Guideline
(X) Cold Stress CDM Guideline ( ) Inorganic Chemicals
( ) Explosive/Flammable (X) Organic Chemicals
( ) Oxygen Deficient (X) Motorized Traffic
( ) Radiological (X) Heavy Machinery
( ) Biological (X) Slips & Falls CDM Guideline
( ) Other: _____
( ) Other: _____

FACILITY'S PAST AND PRESENT DISPOSAL METHODS AND PRACTICES:

The Pall Corporation used both buildings in the manufacturing of filtration products and used and stored TCE and PCE as well as Freon at the site.

This plan incorporates CDM's procedure for: *(Click on the relevant topics to download the hazard guideline. Delete irrelevant topics.)*

Housekeeping	Traffic and Work Zone Safety	Tools and Power Equipment	Working Safely Around Geoprobes
Manual Material Handling	Excavations	Working Around Heavy Equipment	Hazardous Waste Site Controls
Electrical Safety	Ladders	Working Near or Over Water	Working Safely Around Drill Rigs
Lock Out/Tag Out	Scaffolds	Flammable and Combustible Liquids	
Compressed Gases	Mechanized Personnel Lifts	Hazardous Waste Site Decontamination	

HEALTH AND SAFETY PLAN FORM	*This document is for the exclusive*	**CDM (Camp Dresser & McKee)**
CDM Health and Safety Program	*use of CDM and its subcontractors*	**PROJECT DOCUMENT #: 0897**

DESCRIPTION AND FEATURES: *Include principal operations and unusual features (containers, buildings, dikes, power lines, hill slopes, rivers, etc.)*

The site is approximately 5 acres consisting of two one story buildings, one unoccupied and one occupied by August Thomsen Company that manufactures pastry bags. The remainder of the property is paved parking and undeveloped land. It is surrounded by industrial/commercial facilities and the Glen Cove Arterial Highway borders the East side of the site. The nearest surface water source is the Glen Cove Creek adjacent to the site to the west. The site is relatively flat. The objective of this project is to design the remedial system that would potentially remove VOCs from the site.

SURROUNDING POPULATION: (X) Residential (X) Industrial (X) Commercial ( ) Rural ( ) Urban OTHER:

HAZARDOUS MATERIAL SUMMARY: ***Highlight or bold waste types and estimate amounts by category.***

CHEMICALS: *Amount/Units:*	**SOLIDS:** *Amount/Units:*	**SLUDGES:** *Amount/Units:*	**SOLVENTS:** *Amount/Units:*	**OILS:** *Amount/Units:*	**OTHER:** *Amount/Units:*
Acids	Fly ash	Paints	Ketones	Oily Wastes	Laboratory
Pickling Liquors	Mill or Mine Tailings	Pigments	Aromatics	Gasoline	Pharmaceutical
Caustics	Asbestos	Metals Sludges	Hydrocarbons	Diesel Oil	Hospital
Pesticides	Ferrous Smelter	POTW Sludge	Alcohols	Lubricants	Radiological
Dyes or Inks	Non-Ferrous Smelter	Distillation Bottoms	Halogenated (chloro, bromo)	Polynuclear Aromatics	Municipal
Cyanides	Metals in Soils	Aluminum	Esters	PCBs	Construction
Phenols	Dioxins		Ethers	Heating Oil	Munitions
Halogens					
Other - *specify*	Other - *specify*	Other - *specify*	Other - *specify*	Other - *specify*	Other - *specify*

KNOWN CONTAMINANTS		HIGHEST OBSERVED CONCENTRATION	PEL/TLV *ppm or mg/m3 (specify)*	IDLH *ppm or mg/m3 (specify)*	Warning Concentration *(in ppm)*	SYMPTOMS & EFFECTS OF ACUTE EXPOSURE	PHOTO IONIZATION POTENTIAL
Tetrachloroethylene (PCE)	GW	140,000 ug/L	25 ppm	150 ppm	47 ppm	Irritated eyes, nose, throat, flushed	9.32
Trichloroethylene (TCE)	GW	9,600 ug/L	50 ppm	1,000 ppm	82 ppm	Vertigo, visual disturbance,	9.45
cis-1, 2-Dichloroethene (cis-DCE)	GW	15,000 ug/L	200 ppm	1,000 ppm	1.1 ppm	Irritated eyes, nose, CNS depression	10.00
Vinyl Chloride (VC)	GW	1,000 ug/L	1 ppm	Carc	NA	Weakness, Somach Pain, Cancer	10.00
Tetrachloroethylene (PCE)	S	950 mg/kg	25 ppm	150 ppm	47 ppm	Irritated eyes, nose, throat, flushed	9.32
Trichloroethylene (TCE)	S	19 mg/kg	50 ppm	1,000 ppm	82 ppm	Vertigo, visual disturbance,	9.45
cis-1, 2-Dichloroethene (cis-DCE)	S	4.21 mg/kg	200 ppm	1,000 ppm	1.1 ppm	Irritated eyes, nose, CNS depression	10.00
Tetrachloroethylene (PCE)	A	6.6 ug/m3	25 ppm	150 ppm	47 ppm	Irritated eyes, nose, throat, flushed	9.32

NA = Not Available **NE = None Established** **U = Unknown**

Verify your access to an MSDS for each chemical you will use at the site.

S = Soil SW = Surface Water T = Tailings W = Waste TK = Tanks SD = Sediment
A = Air GW = Ground Water SL = Sludge D = Drums L = Lagoons OFF = Off-Site

HEALTH AND SAFETY PLAN FORM CDM Health and Safety Program	*This document is for the exclusive use of CDM and its subcontractors*	CDM (Camp Dresser & McKee) PROJECT DOCUMENT #: 0897	
SPECIFIC TASK DESCRIPTIONS	**Disturbing the Waste?**	**TASK - SPECIFIC HAZARDS**	**HAZARD & SCHEDULE**
1 Measure GW elevations and sample GW monitoring wells.	Intrusive	Slip, Trip, Fall, contamination exposure to skin etc. Use golves when collecting GW samples.	Low Hazard
	Non-intrusive		
2 Sub-surface soil sampling using Geoprobe®	Intrusive	Slip, Trips, Falls, heavy equipment hazards. Use hard hat in the areas in the vicinity of Geoprobe®	Moderate Hazard
	Non-intrusive		
3 Hydraulic/Pump testing.	Intrusive	Use gloves when conducting the pump test.	Low Hazard
	Non-intrusive		
4	Intrusive		
	Non-intrusive		
5	Intrusive		
	Non-intrusive		
6	Intrusive		
	Non-intrusive		
SPECIALIZED TRAINING REQUIRED: **None**		**SPECIAL MEDICAL SURVEILLANCE REQUIREMENTS:** **None**	
OVERALL HAZARD EVALUATION: ( ) High ( ) Medium (X) Low ( ) Unknov *(Where tasks have different hazards, evaluate each.)*			
JUSTIFICATION: Overall hazard is low due to VOC concentrations in the soils and groundwater being low in the proposed work area.			
FIRE/EXPLOSION POTENTIAL: ( ) High ( ) Medium (X) Low ( ) Unknown			

HEALTH AND SAFETY PLAN FORM | *This document is for the exclusive* | **CDM (Camp Dresser & McKee)**

CDM Health and Safety Program | *use of CDM and its subcontractors* | **PROJECT DOCUMENT #: 0897**

PROTECTIVE EQUIPMENT: *Specify by task. Indicate type and/or material, as necessary. Group tasks if possible. Use copies of this sheet if needed.*

BLOCK A

TASKS: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10
LEVEL: A - B - C - D - Modified
(X) Primary ( ) Contingency

Respiratory: (X) Not needed
( ) SCBA, Airline:
( ) APR:
( ) Cartridge:
( ) Escape Mask:
( ) Other:

Head and Eye: ( ) Not needed
(X) Safety Glasses:
( ) Face Shield:
( ) Goggles:
(X) Hard Hat:
( ) Other:

Boots: ( ) Not needed
(X) Steel-Toe ( ) Steel Shank
( ) Rubber ( ) Leather
( ) Overboots:

Prot. Clothing: (X) Not needed
( ) Encapsulated Suit:
( ) Splash Suit
( ) Apron:
( ) Tyvek Coverall or
( ) Saranex Coverall
( ) Cloth Coverall:
( ) Other:

Gloves: ( ) Not needed
( ) Undergloves:
(X) Gloves: Nitrile
( ) Overgloves:

Other: specify below
( ) Tick Spray
( ) Flotation Device If Over Water
(X) Hearing Protection
(X) Sun Screen

BLOCK B

TASKS: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10
LEVEL: A - B - C - D - Modified
( ) Primary (X) Contingency

Respiratory: ( ) Not needed
( ) SCBA, Airline:
( ) APR:
( ) Cartridge:
( ) Escape Mask:
( ) Other:

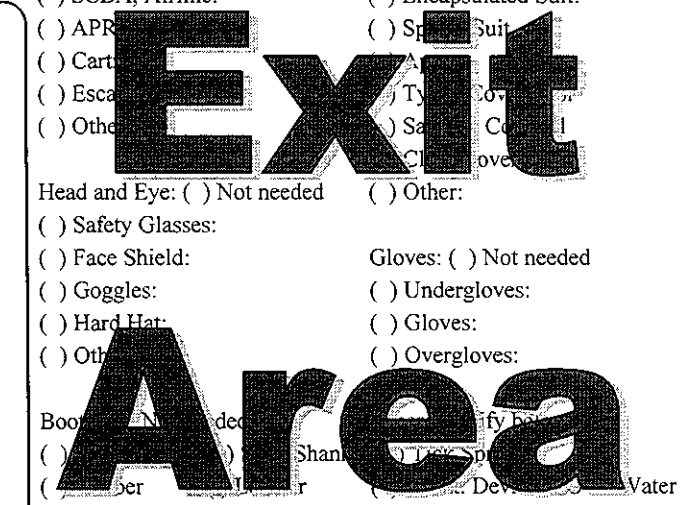
Head and Eye: ( ) Not needed
( ) Safety Glasses:
( ) Face Shield:
( ) Goggles:
( ) Hard Hat:
( ) Other:

( ) Overboots: Latex

Prot. Clothing: ( ) Not needed
( ) Encapsulated Suit:
( ) Other:

Gloves: ( ) Not needed
( ) Undergloves:
( ) Gloves:
( ) Overgloves:

( ) Hearing Protection
( ) Sun Screen



BLOCK C

TASKS: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10
LEVEL: A - B - C - D - Modified
( ) Primary ( ) Contingency

Respiratory: ( ) Not needed
( ) SCBA, Airline:
( ) APR:
( ) Cartridge:
( ) Escape Mask:
( ) Other:

Head and Eye: ( ) Not needed
( ) Safety Glasses:
( ) Face Shield:
( ) Goggles:
( ) Hard Hat:
( ) Other:

Boots: ( ) Not needed
( ) Steel-Toe ( ) Steel Shank
( ) Rubber ( ) Leather
( ) Overboots:

Prot. Clothing: ( ) Not needed
( ) Encapsulated Suit:
( ) Splash Suit
( ) Apron:
( ) Tyvek Coverall
( ) Saranex Coverall
( ) Cloth Coverall:
( ) Other:

Gloves: ( ) Not needed
( ) Undergloves:
( ) Gloves:
( ) Overgloves:

Other: specify below
( ) Tick Spray
( ) Flotation Device
( ) Hearing Protection
( ) Sun Screen

BLOCK D

TASKS: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10
LEVEL: A - B - C - D - Modified
( ) Primary ( ) Contingency

Respiratory: ( ) Not needed
( ) SCBA, Airline:
( ) APR:
( ) Cartridge:
( ) Escape Mask:
( ) Other:

Head and Eye: ( ) Not needed
( ) Safety Glasses:
( ) Face Shield:
( ) Goggles:
( ) Hard Hat:
( ) Other:

Boots: ( ) Not needed
( ) Steel-Toe ( ) Steel Shank
( ) Rubber ( ) Leather
( ) Overboots:

Prot. Clothing: ( ) Not needed
( ) Encapsulated Suit:
( ) Splash Suit
( ) Apron:
( ) Tyvek Coverall
( ) Saranex Coverall
( ) Cloth Coverall:
( ) Other:

Gloves: ( ) Not needed
( ) Undergloves:
( ) Gloves:
( ) Overgloves:

Other: specify below
( ) Tick Spray
( ) Flotation Device
( ) Hearing Protection
( ) Sun Screen

This health and safety plan form constitutes hazard analysis per 29 CFR 1910.132

HEALTH AND SAFETY PLAN FORM	*This document is for the exclusive*	CDM (Camp Dresser & McKee)
CDM Health and Safety Program	*use of CDM and its subcontractors*	PROJECT DOCUMENT #: 0897

MONITORING EQUIPMENT: *Specify by task. Indicate type as necessary. Attach additional sheets if needed.*

INSTRUMENT	TASK	ACTION GUIDELINES		COMMENTS
Combustible Gas Indicator	1-2-3-4-5-6-7-8	0-10% LEL 10-25% LEL >25% LEL 21.0% O2 <21.0% O2 <19.5% O2	*No explosion hazard* *Potential explosion hazard; notify SHSC* *Explosion hazard; interrupt task/evacuate* *Oxygen normal* *Oxygen deficient; notify SHSC* *Interrupt task/evacuate*	(X) Not Needed
Radiation Survey Meter	1-2-3-4-5-6-7-8	3 x Background: >2mR/hr:	*Notify HSM* *Establish REZ*	(X) Not Needed
Photoionization Detector _10.6_eV Lamp Type___	[1-2-3]-4-5-6-7-8	*Specify:* 0 to 5 ppm: Level D. >5 ppm: Leave area. Call HSM		( ) Not Needed Monitor breathing zone continuously. Compare action levels to time-averaged breathing zone measurements
Flame Ionization Detector Type_____	1-2-3-4-5-6-7-8	*Specify:*		(X) Not Needed
Single Gas Type_____ Type_____	1-2-3-4-5-6-7-8	*Specify:*		(X) Not Needed
Respirable Dust Monitor Type_____ Type_____	1-2-3-4-5-6-7-8	*Specify:*		(X) Not Needed
Other *Specify:* Type_____ Type_____	[1-2-3]-4-5-6-7-8	*Specify:* If team notices unusual odors or irritation of the eye or throat, they will leave the area.		( ) Not Needed
Other *Specify:* Type_____ Type_____	1-2-3-4-5-6-7-8	*Specify:*		( ) Not Needed

DECONTAMINATION PROCEDURES

ATTACH SITE MAP INDICATING EXCLUSION, DECONTAMINATION, & SUPPORT ZONES AS PAGE TWO

Personnel Decontamination	**Sampling Equipment Decontamination**	**Heavy Equipment Decontamination**
Summarize below or attach diagram;	*Summarize below or attach diagram;*	*Summarize below or attach diagram;*
Team members will remove their protective clothing in the following order: 1. Equipment drop. 2. Glove removal 3. Hand and face wash. Remove gloves after each sample ( ) Not Needed	Sampling equipment will be decontaminated by: 1. Gross mechanical removal of dirt. 2. Detergent in water wash. 3. Potable water rinse. 4. Distilled water rinse. ( ) Not Needed	CDM will require heavy equipment contractors to decontaminate their equipment before it leaves the site. ( ) Not Needed
Containment and Disposal Method	**Containment and Disposal Method**	**Containment and Disposal Method**
Disposable protective equipment will be disposed of in CDM dumpster, unless heavily contaminated. If heavily contaminated, disposable equipment will be contained in drums and left on site for proper disposal.	Sampling equipment cleaning water solutions will be allowed to drain to the groundwater. If heavily contaminated, disposable equipment will be contained in drums and left on site for proper disposal.	Decontamination fluids will be released to the ground, unless heavily contaminated. If heavily contaminated, contractor will contain the waste in drums, and left on site for proper disposal.

HAZARDOUS MATERIALS TO BE BROUGHT ONSITE

Preservatives		*Decontamination*		*Calibration*	
( ) Hydrochloric Acid	( ) Zinc Acetate	(X) Alconox ™	( ) Hexane	(X) 100 ppm isobutylene	( ) Hydrogen Sulfide
( ) Nitric Acid	( ) Ascorbic Acid	( ) Liquinox ™	( ) Isopropanol	( ) Methane	( ) Carbon Monoxide
( ) Sulfuric Acid	( ) Acetic Acid	( ) Acetone	( ) Nitric Acid	( ) Pentane	( ) pH Standards
( ) Sodium Hydroxide	( ) Other:	( ) Methanol	( ) Other:	( ) Hydrogen	( ) Conductivity Std
		( ) Mineral Spirits		( ) Propane	( ) Other:

HEALTH AND SAFETY PLAN FORM *This document is for the exclusive* **CDM (Camp Dresser & McKee)**

CDM Health and Safety Program *use of CDM and its subcontractors* **PROJECT DOCUMENT #:**

EMERGENCY CONTACTS

Water Supply	
Site Telephone	
EPA Release Report #:	800 / 424 - 8802
CDM 24-Hour Emergency #:	CED 732 / 539 - 8128
Facility Management	
Other (specify): Underground Utility	800 / 962 - 7962
CHEMTREC Emergency #:	800 / 424 - 9300

SAFETY NARRATIVE: *Summarize below*

If CDM work team observes hazards for which they have not prepared, they will withdraw from the area and call the CDM Project Manager

SHSC will designate evacuation routes. Teams will cease work if they see lightning or thunder storms in the area.

CDM may rely on instruments operated by contractor personnel only upon HSM approval. If contractor directs a higher level of protection than this plan does, CDM personnel will wear that level. CDM personnel may choose to wear more protection than directed by this plan.

Contractor will be expected to inspect the drill rig and certify its suitability for the project to the CDM site health and safety coordinator.

If work team encounters pure perchloroethylene, the safety procedures described in this safety plan should protect them adequately. Team members will avoid contact, and minimize their exposure to the vapors emitted.

HEALTH AND SAFETY PLAN APPROVALS (H&S Mgr must sign each plan)

Prepared by	Paresh Patel/Edison	Date	21-Jan-09
HSC Signature		Date	
HSM Signature		Date	Feb 09, 2009

EMERGENCY CONTACTS	**NAME**	**PHONE**
Health and Safety Manager	Chris Marlowe	732 / 590 - 4632
Project Manager	John Blaum	518/782-4509
Site Safety Coordinator	Eric Rosenzweig	518/782-4558
Client Contact	Jeffrey Dyber	518 / 402-9621
Other *(specify)*		
Environmental Agency		
State Spill Number	New York	(800) 457 - 7362
Fire Department		911
Police Department		911
State Police		911
Health Department		
Poison Control Center	Nationwide	800 / 222 - 1222
Occupational Physician	Dr. Jerry Berke	800/350 - 4511

MEDICAL EMERGENCY **PHONE**

Nam North Shore Hospital

Phoi 516 674-7501

Add ss: 101 Saint Andrews Lane, Glen Cove, NY 11542

Route to Hospital:

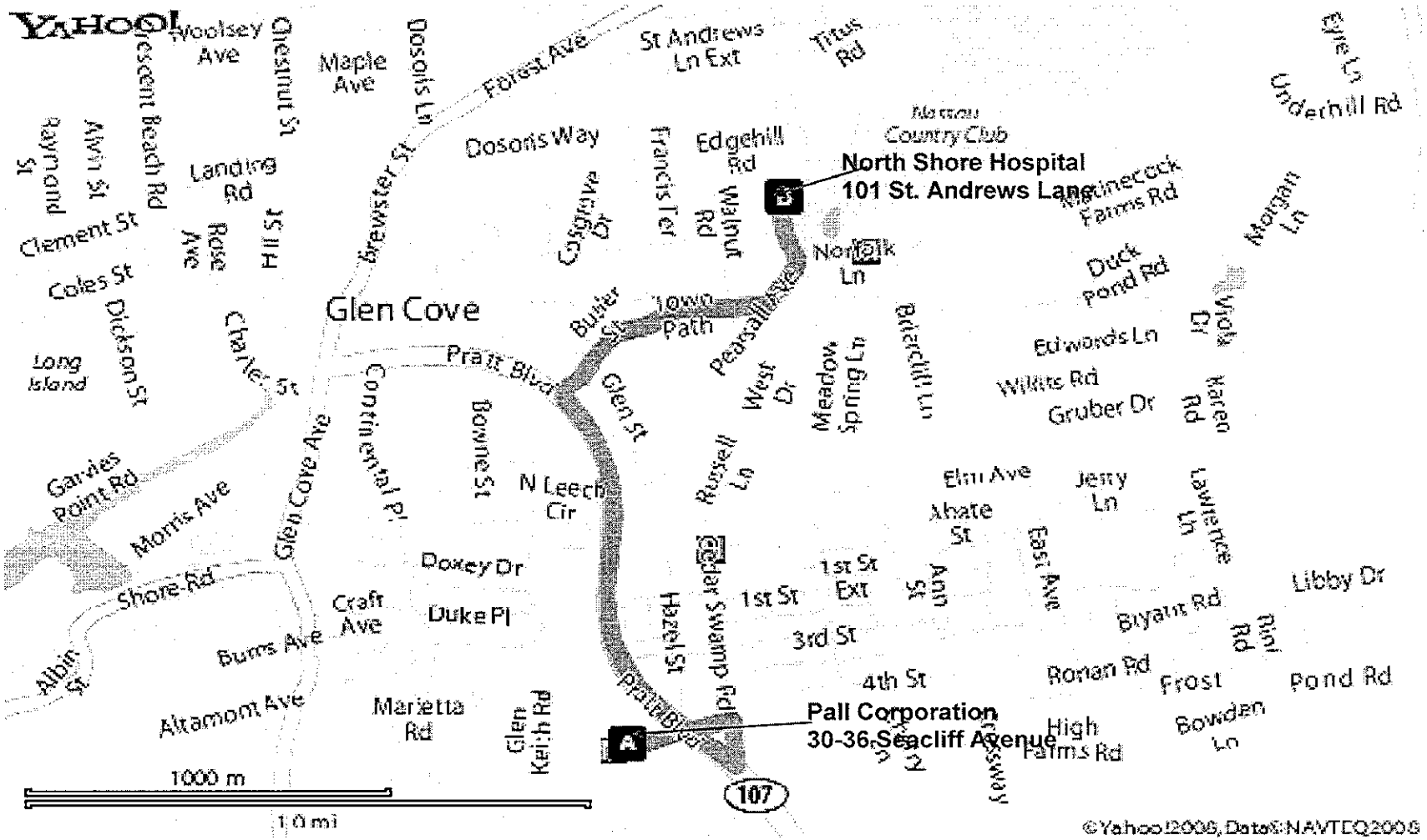
1. Start at 30 SEA CLIFF AVE, GLEN COVE going towardHAZEL ST go 0.14 mi
2. Continue on C. COLUMBUS AVE go 317 ft
3. Turn Right on CEDAR SWAMP RD go 0.1 mi
4. Turn Right on PRATT BLVD(RT-107 N) go 0.85 mi
5. Turn Right on PRATT BLVD go 264 ft
6. Bear Left on TOWN PATH go 0.41 mi
7. Bear Left on PEARSALL AVE go 0.1 mi
8. Continue on ST ANDREWS LN go 0.14 mi
9. Arrive at 10 SAINT ANDREWS LN, GLEN COVE, on the Right

Distance to Hospital 1.85 miles

HEALTH AND SAFETY PLAN FORM
CDM Health and Safety Program
ROUTE TO HOSPITAL MAP:

This document is for the exclusive use of CDM and its subcontractors

CDM (Camp Dresser & McKee)
PROJECT DOCUMENT #:0897



HEALTH AND SAFETY PLAN SIGNATURE FORM

CDM Health and Safety Plan

All site personnel must sign this form indicating receipt of the H&SP. Keep this original on site. It becomes part of the permanent project files. Send a copy to the Health and Safety Manager (HSM).

SITE NAME/NUMBER: Pall Corporation - 0897

DIVISION/LOCATION: ERD/Albany Office

CERTIFICATION:

I understand, and agree to comply with, the provisions of the above referenced H&SP for work activities on this project. I agree to report any injuries, illnesses or exposure incidents to the site Health and Safety Coordinator (SHSC). I agree to inform the SHSC about any drugs (legal and illegal) that I take within three days of site work.

PRINTED NAME	SIGNATURE	DATE

Appendix B
Schedule 2.11s

Schedule 2.11(a)

Summary of Work Assignment Price

Work Assignment Number D006131-4 - Pall Corporation

1) Direct Salary Costs (Schedules 2.10(a) and 2.11(b))			$101,218
2) Indirect Costs (Schedule 2.10(g))			$169,945
3) Direct Non-Salary Costs (Schedules 2.10(b)(c)(d) and 2.11(c)(d))			$31,890
4) Subcontract Costs			
Cost-Plus-Fixed-Fee Subcontracts (Schedule 2.10(e) and 2.11(e))			
Name of Subcontractor	**Services To Be Performed**		**Subcontract Price**
i) None			
A) Total Cost-Plus-Fixed-Fee Subcontracts		$0	
Unit Price Subcontracts (Schedule 2.10 (f) and 2.11 (f))			
Name of Subcontractor	**Services To Be Performed**		**Subcontract Price**
i) Upstate Labs	Analytical Services		$7,679
ii) CRA	Data Validation		$1,590
iii) Aztech	Geoprobe		$17,897
iv) Crawford	Lab - dye testing		$19,168
v) Land, Air, Water Env. Services Inc.	Dye Injection		$2,800
vi) Advanced Geological	Geophysical Survey		$3,800
vii) Inovative Recycling Technologies Inc.	IDW		$18,440
B) Total Unit Price Subcontracts		$71,374	
5) Subcontract Management Fee		$2,915	
6) Total Subcontract Costs (lines 4A + 4B + 5)			$74,289
7) Fixed Fee (Schedule 2.10(h))			$18,981
8) Total Work Assignment Price (Lines 1 + 2 + 3 + 6 + 7)			$396,324

Engineer/Contract # D006131
Project Name Pall Corporation
Work Assignment No. 4

Date Prepared: _____

Schedule 2.11(b)
Direct Labor Hours Budgeted

Labor Classification	*IX*		*VIII*		*VII*		*VI*		*V*		*IV*		*III*		*II*		*I*		*Tech. Support*		*Admin Support*		*Total No. of Direct Labor Hours and Costs Budgeted*	
Year 2009	$66.26		$60.35		$52.90		$46.67		$39.36		$33.38		$29.07		$25.92		$21.75	$21.45	$21.45		$21.45			
Description	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Task 1 - Work Plan Development and Project Meetings																								
Task 1.1 Work Plan Development - Site Visit	1	$66	2	$121	8	$423	60	$2,800	0	$0	20	$668	20	$581	0	$0	0	$0	0	$0	4	$86	115	$4,745
Task 1.2 Background Information Review	1	$66	4	$241	50	$2,645	66	$3,080	32	$1,260	48	$1,602	65	$1,890	0	$0	0	$0	0	$0	8	$172	274	$10,956
Task Subtotals	**2**	**$133**	**6**	**$362**	**58**	**$3,068**	**126**	**$5,880**	**32**	**$1,260**	**68**	**$2,270**	**85**	**$2,471**	**0**	**$0**	**0**	**$0**	**0**	**$0**	**12**	**$257**	**389**	**$15,701**
Task 2 - Pre-Design Sampling & Testing																								
Task 2.1 Groundwater Measurement and Sampling	0	$0	0	$0	4	$212	8	$373	0	$0	40	$1,335	40	$1,163	0	$0	0	$0	0	$0	2	$43	94	$3,126
Task 2.2 Supplemental Soil Boring Investigation	0	$0	0	$0	4	$212	8	$373	0	$0	100	$3,338	20	$581	0	$0	0	$0	0	$0	2	$43	134	$4,547
Task 2.3 Review of Existing Hydraulic Data	0	$0	4	$241	4	$212	8	$373	0	$0	20	$668	40	$1,163	0	$0	0	$0	0	$0	2	$43	78	$2,700
Task 2.4 Hydraulic Testing	0	$0	0	$0	4	$212	14	$653	0	$0	72	$2,403	72	$2,093	0	$0	0	$0	0	$0	2	$43	164	$5,404
Task 2.5 Tracer Testing	0	$0	0	$0	20	$1,058	20	$933	26	$1,023	10	$334	256	$7,442	0	$0	0	$0	0	$0	2	$43	334	$10,833
Task 2.6 Supplemental Report	0	$0	2	$121	24	$1,270	40	$1,867	0	$0	115	$3,839	32	$930	0	$0	0	$0	0	$0	8	$172	229	$8,369
Task Subtotals	**0**	**$0**	**6**	**$362**	**60**	**$3,174**	**98**	**$4,574**	**26**	**$1,023**	**357**	**$11,917**	**460**	**$13,372**	**0**	**$0**	**0**	**$0**	**0**	**$0**	**8**	**$172**	**18**	**$386**	**1033**	**$34,980**
Task 3 - Site Conceptual Model																								
Task 3.1 Conceptual Model Development	1	$66	2	$121	40	$2,116	55	$2,567	0	$0	60	$2,003	30	$872	0	$0	0	$0	16	$343	4	$86	208	$8,174
Task 3.2 Comparison & Selection of Remedial Alternative	0	$0	2	$121	60	$3,174	62	$2,894	0	$0	48	$1,602	32	$930	0	$0	0	$0	12	$257	8	$172	224	$9,150
Task Subtotals	**1**	**$66**	**4**	**$241**	**100**	**$5,290**	**117**	**$5,460**	**0**	**$0**	**108**	**$3,605**	**62**	**$1,802**	**0**	**$0**	**0**	**$0**	**28**	**$601**	**12**	**$257**	**432**	**$17,323**
Task 4 - Remedial Design																								
Task 4.1 Preliminary Design (30%)	2	$133	16	$966	24	$1,270	32	$1,493	0	$0	40	$1,335	80	$2,326	0	$0	0	$0	24	$515	4	$86	222	$8,123
Task 4.2 Intermediate Design (60%)	1	$66	8	$483	16	$846	40	$1,867	16	$630	100	$3,338	120	$3,488	0	$0	0	$0	24	$515	8	$172	333	$11,405
Task 4.3 Final Design (100%)	2	$133	8	$483	8	$423	16	$747	0	$0	32	$1,068	72	$2,093	0	$0	0	$0	2	$43	2	$43	142	$5,032
Task 4.4 Bidding Assistance	0	$0	0	$0	0	$0	24	$1,120	0	$0	30	$1,001	60	$1,744	0	$0	0	$0	0	$0	4	$86	118	$3,951
Task 4.5 Construction Cost Estimate	1	$66	2	$121	64	$3,386	8	$373	0	$0	8	$267	8	$233	0	$0	0	$0	8	$172	4	$86	103	$4,703
Task Subtotals	**6**	**$398**	**34**	**$2,052**	**112**	**$5,925**	**120**	**$5,600**	**16**	**$630**	**210**	**$7,010**	**340**	**$9,884**	**0**	**$0**	**0**	**$0**	**58**	**$1,244**	**22**	**$472**	**918**	**$33,214**
Total Hours	9		50		330		461		74		743		947		0		0		94		64		2772	
Total Direct Labor Cost ($)		$596		$3,018		$17,457		$21,515		$2,913		$24,801		$27,529		$0		$0		$2,016		$1,373		$101,218

Engineer/Contract D006131

Project Name Pall Corporation

Work Assignment No. 4

Date Prepared: _____

Schedule 2.11(b-1)
Direct Administrative Labor Hours Budgeted

Labor Classification	*IX*	*VIII*	*VII*	*VI*	*V*	*IV*	*III*	*II*	*I*	*Tech. Support*	*Admin. Support*	*Total No. of Direct Labor Hrs.*
Task 1 Work Plan Development/Information Review/Site Visit	1	2	1	2	0	0	0	0	0	0	12	18
Task 2 Pre-Design Sampling & Analysis	0	1	1	2	0	0	0	0	0	0	18	22
Task 3 Site Conceptual Model	1	2	1	2	0	0	0	0	0	0	12	18
Task 4 Remedial Design	3	4	1	2	0	0	0	0	0	0	22	32
TOTAL HOURS	5	9	4	8	0	0	0	0	0	0	64	90

Contract/Project administrative hours would include (subject to contract allowability) but not necessarily be limited to the following activities:

1) Work Plan Budget Development
   > Conflict of Interest Check
   > Budget schedules & supporting documentation
2) Review work assignment (WA) progress
   > Conduct progress reviews
   > Prepare monthly project report
   > Update WA progress schedule
   > Prepare M/WBE Utilization Report
3) Contractor Application for Payment (CAP)
   > Oversee and prepare monthly CAP
4) Program Management
   > Prepare monthly cost control report
   > Cost control reviews
<> Staffing Plans
   >Manage subcontracts
   > NSPE list update
   > Equipment inventory
5) Miscellaneous
   > Conduct Health and Safety Reviews
   > Word processing and graphic artists
   > Report editing

Contract/Project Administration hours would **not** include:
1) QA/QC reviews
2) Techincal oversight by management
3) Develop subcontracts
4) Work plan development
5) Review of deliverables

Schedule 2.11 (c)

Direct Non-Salary Costs
Work Assignment Number **D006131-4 - Pall Corporation**

	Item	Max. Reimbursement * Rate (Specify Unit)	Est. No. of Units	Total Estimated Cost
A)	Other			
	1) Mailings/FedEx	LS	1	$3,500.00
	2) Outside Printing	LS	1	$7,500.00
B)	Miscellaneous			
	1) Meals (per day)	$64.00	40	$2,560.00
	2) Lodging (per day)	$162.00	40	$6,480.00
	3) Mileage (per mile)	$0.550	10000	$5,500.00
	4) LVE (per manhour)	$1.00	640	$640.00
	5) PPE (Level D per day)	$15.00	80	$1,200.00
			Total Direct Non-Salary Costs	$27,380.00

Work Assignment No. D006131-4 Pall Corporation

Schedule 2.11(d) 3

Maximum Reimbursement Rate for Vendor Rented Equipment

Item	Unite Rate	Est. Usage (weeks)	Est. Rental Cost ($) (Col. 2 x 3)
PID (per week)	$105	4	$420
YSI meter	$500	1	$500
Peristalic Pump/low flow pump (2)	$200	2	$400
Water Level Meter	$50	4	$200
CGI	$75	4	$300
Generator	$100	2	$200
Pressure Transducers (6 units for two weeks)	$125	12	$1,500
Logger programming device (rugged reader)	$100	1	$100
Submersible pump for Hydraulic testing	$160	1	$160
Barometric presssure transducer	$60	1	$60
Water meter (flow)	$30	1	$30
		TOTAL:	**$3,870**

* Reimbursement will be made at the Maximum Reimbursement rate or the actual rental rate, whichever is less.

Work Assignment No. D006131-4

Schedule 2.11(d) 5

Consumable Supplies

Item	Estimated Quantity	Unit Cost ($)	Total Budgeted Cost (Col. 2 x3) ($)
Poly Tubing (feet)	1000	$0.50	$500.00
Disposable Bailers (2 cases - 24 per case)	2	$70.00	$140.00
XXXXXXXXXXXXXXX	0	$0.00	$0.00
		TOTAL	**$640.00**

Schedule 2.11 (f)
Pall Corporation
Unit Price Subcontracts
Work Assignment Number D006131-4

Name of Subcontractor	Services to be Performed	Subcontract Price	Subcontractor Fee
Aztech Technologies Inc.	**Geoprobe Services**	$17,897	895

Item/Description	Quantity	Units	Unit Price	Total
Mob/Demob	10	days	$2,725.00	$2,725.00
Senior Technician/Driller		per hour		incl
Technician		per hour		incl
Permits		LS		n/a
Rig Mileage Rate		per mile		incl
Per Diem Rate		per day		incl
Prevailing Wage Upcharge		per day		n/a
Support Truck Mileage Rate		per mile		n/a
Utility Clearance		LS		incl
Drill Rig and Crew				
Track Drill Rig & Crew (1 man crew)	10	per day	$1,050.00	10500
Overtime Rate		per hour	$135.00	
Soil Sampling & Temporary Monitoring Wells				
standard Macro Core Soil Samples with Acetate Liners	180	each	$6.00	1080
1" Sch40 PVC Riser		per foot	--	
1" Sch40 PVC 010 Slot Screen to be pulled up in 10-foot increments for groundwater profiling		per foot	--	
1" PVC Cap		each	--	
Sand and Bentonite Grouting of hole to ground surface	720	per foot	$1.50	1080
Groundwater Sample	0	each	$5.00	0
Disposable points for sampling, if required	0	each	$5.00	0
Soil Vapor Point Installation				
Shallow Soil Vapor Point Installation (0-8')*	4	each	$83.00	332
Deep Soil Vapor Point Installation (8'-16')*		each		
Miscellaneous				
Decontamination	4	per hour	$80.00	320
Standby Time	2	per hour	$80.00	160
55-Gallon DOT Drum	12	each	$48.00	576
poly tubing	incl	incl		
Subtotal				**$16,773**

8% third year cost increase - as per contract (excludes mob/demob cost)

TOTAL				**$17,897**

Schedule 2.11 (f)
Pall Corporation Site
Unit Price Subcontracts
Work Assignment Number D006131-4

Name of Subcontractor Upstate
Services to be Performed Laboratory
Subcontract Price $7,679
Management Fee $0

Item	Max. Reimbursement Rate	Specify Unit	Est. No. of Units	Total Est. Cost
Groundwater Sampling				
LABORATORY ANALYSIS				
TCL VOCs +Freon 8360B	$60.00	Sample	18	$1,080
Total Organic Carbon (TOC)	$9.45	Sample	12	$113
Dissolved Organic Carbon	$9.45	Sample	12	$113
Chemical Oxygen Demand	$7.10	Sample	12	$85
Biological Oxygen Demand	$7.70	Sample	12	$92
Nitrate	$5.90	Sample	12	$71
Sulfate	$4.75	Sample	12	$57
Phosphate	$7.70	Sample	12	$92
Total Alkalinity	$8.85	Sample	12	$106
Total Iron	$3.55	Sample	12	$43
Priority Pollutant Metals	$65.50	Sample	12	$786
Methane/ethane/ethene	$75.00	Sample	12	$900
			Subtotal	**$3,539**
Soil Sampling				
LABORATORY ANALYSIS				
TCL VOCs +Freon 8360B	$60.00	Sample	48	$2,880
Total Organic Carbon (TOC)	$10.05	Sample	6	$60
Priority Pollutant Metals	$74.95	Sample	6	$450
			Subtotal	**$3,390**
Task 2C - RCRA Characteristics				
SAMPLING EQUIPMENT				
LABORATORY ANALYSIS				
RCRA Characteristics	$375.00	Sample	2	$750
			Subtotal	**$750**
			Subtotal-Subcontract Price	**$7,679**
			Subcontract Management Fee*	**$0**
			TOTAL	**$7,679**

* A subcontract management fee of 5% has been included for W/MBE subcontracts.

Schedule 2.11 (f)
Pall Corporation Site
Unit Price Subcontracts - Tracer Testing
Work Assignment Number D006131-4

Name of Subcontractor Crawford
Services to be Performed Laboratory - Tracer Testing
Subcontract Price $19,168
Management Fee $958

Item	Max. Reimbursement Rate	Specify Unit	Est. No. of Units	Total Est. Cost
Dye Tracer Study				
LABORATORY ANALYSIS				
Provide Dye - fluorescein	$30.00	pound	25	$750
Provide Dye - eosine	$40.00	pound	35	$1,400
Background analysis - charcoal	$45.00	sample	30	$1,350
Background analysis - water	$43.50	sample	6	$261
Test samples - charcoal	$25.00	sample	412	$10,300
Test samples - water	$18.50	sample	83	$1,536
Dye Receptors	$4.50	sample	442	$1,989
grab sample vials	$1.00	sample	442	$442
Charcoal Blanks	$4.00	sample	30	$120
Charcoal Blanks Analysis	$25.00	sample	30	$750
Shipping Dye mixed with water	$240.00	each	1	$240
Shipping Supplies	$30.00	each	1	$30
			Subtotal	**19,168**
			Subtotal-Subcontract Price	**$19,168**
			Subcontract Management Fee*	**$958**
			TOTAL	**$20,126**

* A subcontract management fee of 5% has been included for subcontractors over $10,000.

Schedule 2.11 (f)
Pall Corporation Site
Unit Price Subcontracts
Work Assignment Number D006131-4

Name of Subcontractor CRA
Services to be Performed Data Validation
Subcontract Price $1,590
Management Fee $0

Item	Max. Reimbursement Rate	Specify Unit	Est. No. of Units	Total Est. Cost
Groundwater Sampling				
LABORATORY ANALYSIS				
TCL VOCs +Freon 8360B	$10.00	Sample	18	$180
Total Organic Carbon (TOC)	$5.00	Sample	12	$60
Dissolved Organic Carbon	$5.00	Sample	12	$60
Chemical Oxygen Demand	$5.00	Sample	12	$60
Biological Oxygen Demand	$5.00	Sample	12	$60
Nitrate	$5.00	Sample	12	$60
Sulfate	$5.00	Sample	12	$60
Phosphate	$5.00	Sample	12	$60
Total Alkalinity	$5.00	Sample	12	$60
Total Iron	$5.00	Sample	12	$60
Priority Pollutant Metals	$10.00	Sample	12	$120
Methane/ethane/ethene	$9.00	Sample	12	$108
			Subtotal	**$948**
Soil Sampling				
LABORATORY ANALYSIS				
TCL VOCs +Freon 8360B	$10.00	Sample	48	$480
Total Organic Carbon (TOC)	$7.00	Sample	6	$42
Priority Pollutant Metals	$10.00	Sample	6	$60
			Subtotal	**$582**
Task 2C - RCRA Characteristics				
SAMPLING EQUIPMENT				
LABORATORY ANALYSIS				
RCRA Characteristics	$30.00	Sample	2	$60
			Subtotal	**$60**
			Subtotal-Subcontract Price	**$1,590**
			Subcontract Management Fee*	**$0**
			TOTAL	**$1,590**

* A subcontract management fee of 5% has been included for W/MBE subcontracts.

Schedule 2.11 (f)
Pall Corporation Site
Unit Price Subcontracts
Work Assignment Number D-006131-4

Name of Subcontractor	Services to be Performed	Subcontract Price	Management Fee
Land, Air, Water Env. Services	Tracer Test Injection	$2,940.00	$140.00

Item	Unit Rate	Units	Est. No. of Units	Total Est. Cost
Mobilization/Demobilization	$400	LS	1	$400.00
2-man crew, rig, truck, tank & equip	$2,300	day	1	$2,300.00
Modified Level D	$50	man	2	$100.00
			Subtotal	**$2,800.00**

Subtotal-Subcontract Price	**$2,800.00**
Subcontract Management Fee*	**$140.00**
TOTAL	**$2,940.00**

*** A subcontract management fee of 5% has been included for subcontrac**

Schedule 2.11 (f)
Pall Corporation Site
Unit Price Subcontracts
Work Assignment Number D-006131-4

Name of Subcontractor	Services to be Performed	Subcontract Price	Management Fee
Advanced Geological Services	Geophysical Survey	$3,800.00	$0.00

Item	Unit Rate	Units	Est. No. of Units	Total Est. Cost
Geophysical Survey Services - 2 days	$1,900	day	2	$3,800.00
			Subtotal	**$3,800.00**
Subtotal-Subcontract Price				**$3,800.00**
Subcontract Management Fee*				**$0.00**
TOTAL				**$3,800.00**

*** A subcontract management fee of 5% has been included for subcontr**

Schedule 2.11 (f)
Pall Corporation Site
Unit Price Subcontracts
Work Assignment Number D-006131-4

Name of Subcontractor	Services to be Performed	Subcontract Price	Management Fee
Inovative Recycling Technologies, Inc	IDW Removal	$18,440.00	$922.00

Item	Unit Rate	Units	Est. No. of Units	Total Est. Cost
Two 4,000 Gallon Tanks for Hydraulic Testing				
Mobilization	$825	Each	2	$1,650.00
Daily Rental	$27	per day	120	$3,240.00
Tank Cleaning	$900	Each	2	$1,800.00
Demobilization	$825	Each	2	$1,650.00
Disposal Hazardous and Non-Hazardous Waste - Soil, water & plastic debris				
Non-hazardous	$125	Per Drum	10	$1,250.00
Hazardous	$425	Per Drum	2	$850.00
Treatment/Disposal of Water From Tanks				
3,000 gallons Non-Hazardous	1750	LS	1	$1,750.00
3,000 gallonsHazardous	6250	LS	1	$6,250.00
			Subtotal	**$18,440.00**

Subtotal-Subcontract Price	**$18,440.00**
Subcontract Management Fee*	**$922.00**
TOTAL	**$19,362.00**

*** A subcontract management fee of 5% has been included for subcontracts over $10,000.**

Schedule 2.11 (g)

Monthly Cost Control Report
Summary of Fiscal Information

Engineer Camp Dresser & McKee
Contract No. D006131
Project Name Pall Corporation
Work Assignment No. D006131-4
Task #/Name 2.11 (g) Summary
Complete 0%

Date Prepared 1/15/09
Billing Period
Invoice No.

Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid to Date*	*C* *Total Disallowed to Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs to Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1. Direct Salary Costs	$0	$0	$0	$0	$0	$0	$101,218	$0
2. Indirect Costs - 167.9%	$0	$0	$0	$0	$0	$0	$169,945	$0
3. Subtotal Direct Salary Costs and Indirect Costs	$0	$0	$0	$0	$0	$0	$271,163	$0
4. Travel	$0	$0	$0	$0	$0	$0	$14,540	$0
5. Other Non-Salary Costs	$0	$0	$0	$0	$0	$0	$17,350	$0
6. Subtotal Direct Non-Salary Costs	$0	$0	$0	$0	$0	$0	$31,890	$0
7. Subcontractors	$0	$0	$0	$0	$0	$0	$71,374	$0
7a. Subcontract Mgt. Fee	$0	$0	$0	$0	$0	$0	$2,915	$0
8. Total Work Assignment Cost	$0	$0	$0	$0	$0	$0	$377,342	$0
9. Fixed Fee	$0	$0	$0	$0	$0	$0	$18,981	$0
10. Total Work Assignment Price	$0	$0	$0	$0	$0	$0	$396,324	$0

Project Manager John P. Blaum, P.E.

Date 1/15/09

Schedule 2.11 (g)

Monthly Cost Control Report
Summary of Fiscal Information

Engineer Camp Dresser & McKee
Contract No. D006131
Project Name Pall Corporation
Work Assignment No. D006131-4
Task #/Name Task 1 - Work Plan Development/Information Review-Site Visit
Complete 0%

Date Prepared 1/15/09
Billing Period
Invoice No.

Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid to Date*	*C* *Total Disallowed to Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs to Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1. Direct Salary Costs	$0	$0	$0	$0	$0	$0	$15,701	$0
2. Indirect Costs - '167.9%	$0	$0	$0	$0	$0	$0	$26,362	$0
3. Subtotal Direct Salary Costs and Indirect Costs	$0	$0	$0	$0	$0	$0	$42,063	$0
4. Travel	$0	$0	$0	$0	$0	$0	$500	$0
5. Other Non-Salary Costs	$0	$0	$0	$0	$0	$0	$500	$0
6. Subtotal Direct Non-Salary Costs	$0	$0	$0	$0	$0	$0	$1,000	$0
7. Subcontractors	$0	$0	$0	$0	$0	$0	$0	$0
7a. Subcontract Mgt. Fee	$0	$0	$0	$0	$0	$0	$0	$0
8. Total Work Assignment Cost	$0	$0	$0	$0	$0	$0	$43,063	$0
9. Fixed Fee	$0	$0	$0	$0	$0	$0	$2,944	$0
10. Total Work Assignment Price	$0	$0	$0	$0	$0	$0	$46,007	$0

Project Manager John P. Blaum, P.E.

Date 1/15/09

Schedule 2.11 (g)

Monthly Cost Control Report
Summary of Fiscal Information

Engineer Camp Dresser & McKee
Contract No. D006131
Project Name Pall Corporation
Work Assignment No. D006131-4
Task #/Name Task 2 - Pre-Design Sampling & Analysis
Complete 0%

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Date Prepared 1/15/09
Billing Period
Invoice No.

Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid to Date*	*C* *Total Disallowed to Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs to Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1. Direct Salary Costs	$0	$0	$0	$0	$0	$0	$34,980	$0
2. Indirect Costs 167.9%	$0	$0	$0	$0	$0	$0	$58,731	$0
3. Subtotal Direct Salary Costs and Indirect Costs	$0	$0	$0	$0	$0	$0	$93,711	$0
4. Travel	$0	$0	$0	$0	$0	$0	$13,540	$0
5. Other Non-Salary Costs	$0	$0	$0	$0	$0	$0	$9,100	$0
6. Subtotal Direct Non-Salary Costs	$0	$0	$0	$0	$0	$0	$22,640	$0
7. Subcontractors	$0	$0	$0	$0	$0	$0	$71,374	$0
7a. Subcontract Mgt. Fee	$0	$0	$0	$0	$0	$0	$2,915	$0
8. Total Work Assignment Cost	$0	$0	$0	$0	$0	$0	$190,640	$0
9. Fixed Fee	$0	$0	$0	$0	$0	$0	$6,560	$0
10. Total Work Assignment Price	$0	$0	$0	$0	$0	$0	$197,199	$0

Project Manager John P. Blaum, P.E.

Date 1/15/09

Schedule 2.11 (g)

Monthly Cost Control Report
Summary of Fiscal Information

Engineer Camp Dresser & McKee
Contract No. D006131
Project Name Pall Corporation
Work Assignment No. D006131-4
Task #/Name Task 3 - Site Conceptual Model
Complete 0%

Date Prepared 1/15/09
Billing Period
Invoice No.

Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid to Date*	*C* *Total Disallowed to Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs to Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1. Direct Salary Costs	$0	$0	$0	$0	$0	$0	$17,323	$0
2. Indirect Costs 167.9%	$0	$0	$0	$0	$0	$0	$29,086	$0
3. Subtotal Direct Salary Costs and Indirect Costs	$0	$0	$0	$0	$0	$0	$46,409	$0
4. Travel	$0	$0	$0	$0	$0	$0	$250	$0
5. Other Non-Salary Costs	$0	$0	$0	$0	$0	$0	$250	$0
6. Subtotal Direct Non-Salary Costs	$0	$0	$0	$0	$0	$0	$500	$0
7. Subcontractors	$0	$0	$0	$0	$0	$0	$0	$0
7a. Subcontract Mgt. Fee	$0	$0	$0	$0	$0	$0	$0	$0
8. Total Work Assignment Cost	$0	$0	$0	$0	$0	$0	$46,909	$0
9. Fixed Fee	$0	$0	$0	$0	$0	$0	$3,249	$0
10. Total Work Assignment Price	$0	$0	$0	$0	$0	$0	$50,158	$0

Project Manager John P. Blaum, P.E.

Date 1/15/09

Schedule 2.11 (g)

Monthly Cost Control Report
Summary of Fiscal Information

Engineer Camp Dresser & McKee
Contract No. D006131
Project Name Pall Corporation
Work Assignment No. D006131-4
Task #/Name Task 4 - Remedial Design
Complete 0%

Date Prepared 1/15/09
Billing Period
Invoice No.

Expenditure Category	*A* *Costs Claimed This Period*	*B* *Paid to Date*	*C* *Total Disallowed to Date*	*D* *Total Costs Incurred to Date (A+B+C)*	*E* *Estimated Costs to Completion*	*F* *Estimated Total Work Assignment Price (A+B+E)*	*G* *Approved Budget*	*H* *Estimated Under/Over (G-F)*
1. Direct Salary Costs	$0	$0	$0	$0	$0	$0	$33,214	$0
2. Indirect Costs 167.9%	$0	$0	$0	$0	$0	$0	$55,766	$0
3. Subtotal Direct Salary Costs and Indirect Costs	$0	$0	$0	$0	$0	$0	$88,980	$0
4. Travel	$0	$0	$0	$0	$0	$0	$250	$0
5. Other Non-Salary Costs	$0	$0	$0	$0	$0	$0	$7,500	$0
6. Subtotal Direct Non-Salary Costs	$0	$0	$0	$0	$0	$0	$7,750	$0
7. Subcontractors	$0	$0	$0	$0	$0	$0	$0	$0
7a. Subcontract Mgt. Fee	$0	$0	$0	$0	$0	$0	$0	$0
8. Total Work Assignment Cost	$0	$0	$0	$0	$0	$0	$96,730	$0
9. Fixed Fee	$0	$0	$0	$0	$0	$0	$6,229	$0
10. Total Work Assignment Price	$0	$0	$0	$0	$0	$0	$102,959	$0

Project Manager John P. Blaum, P.E.

Date 1/15/09

Schedule 2.11 (g) - Supplemental

Cost Control Report for Subcontracts

Engineer Camp Dresser & McKee
Contract No. D006131
Project Name Pall Corporation
Work Assignment No. D006131-4

Page 1 of 1
Date Prepared 1/15/09
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Subcontract Name	*A* *Subcontract Costs Claimed this Application Inc. Resubmittals*	*B* *Subcontract Costs Approved for Payment on Previous Applications*	*C* *Total Subcontract Costs to Date (A plus B)*	*D* *Subcontract Approved Budget*	*E* *Management Fee Budget*	*F* *Management Fee Paid*	*G* *Total Costs to Date (C plus F)*
1. Upstate Labs	$0	$0	$0	$7,679	$0	$0	$0
2. Conestoga-Rover Associates	$0	$0	$0	$1,590	$0	$0	$0
3. Aztech	$0	$0	$0	$17,897	$895	$0	$0
4. Crawford	$0	$0	$0	$19,168	$958	$0	$0
5. LAWES	$0	$0	$0	$2,800	$140	$0	$0
6. Advanced Geological Services	$0	$0	$0	$3,800	$0	$0	$0
7. Inovative Recycling Technologies Inc	$0	$0	$0	$18,440	$922	$0	$0
TOTALS	$0	$0	$0	$71,374	$2,915	$0	$0

Project Manager John P. Blaum, P.E.

Date 1/15/2009

NOTES:

1) Costs listed in Columns A, B, C & D do not include any management fee costs.
2) Management fee is applicable to only properly procured, satisfactorily completed, unit price subcontracts over $10,000.
3) Line 11, Cloumn G should equal Line 7 (Subcontractors), Column D of Summary Cost Control Report.

Schedule 2.11(h)
Monthly Cost Control Report
Summary of Labor Hours
Number of Direct Labor Hours Expended to Date/Estimated Number of Direct Labor Hours to Completion

Engineer/Contract # D006131
Project Name Pall Corporation
Work Assignment No. D006131-4

Date Prepare 1/15/09
Billing Period
Invoice No.

NSPE Labor Classification	*IX Exp/Est*	*VIII Exp/Est*	*VII Exp/Est*	*VI Exp/Est*	*V Exp/Est*	*IV Exp/Est*	*III Exp/Est*	*II Exp/Est*	*I Exp/Est*	*Tech Exp/Est*	*Admin.*	*Total No. of Direct Labor Hrs. Exp/Est*
Task 1	0 / 2	0 / 6	0 / 58	0 / 126	0 / 32	0 / 68	0 / 85	0 / 0	0 / 0	0 / 0	0 / 12	0 / 389
Task 2	0 / 0	0 / 6	0 / 60	0 / 98	0 / 26	0 / 357	0 / 460	0 / 0	0 / 0	0 / 8	0 / 18	0 / 1033
Task 3	0 / 1	0 / 4	0 / 100	0 / 117	0 / 0	0 / 108	0 / 62	0 / 0	0 / 0	0 / 28	0 / 12	0 / 432
Task 4	0 / 6	0 / 34	0 / 112	0 / 120	0 / 16	0 / 210	0 / 340	0 / 0	0 / 0	0 / 58	0 / 22	0 / 918
Total Hours	0 / 9	0 / 50	0 / 330	0 / 461	0 / 74	0 / 743	0 / 947	0 / 0	0 / 0	0 / 94	0 / 64	0 / 2772

* Expended/Estimated