Remedial Design and Remedial Action Work Plan

TransTechnology Glen Head Site
Glen Head, New York

Prepared for:

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EXECUTIVE SUMMARY

Geomatrix Consultants (Geomatrix) was retained by Breeze-Eastern Corporation (formerly TransTechnology Corporation (TTC)) to prepare this Remedial Design and Remedial Action Work Plan (RD/RA Work Plan) for the its property located at One Robert Lane in Glen Head, New York (Site). This RD/RA Work Plan is specifically directed toward remediation of impacted soils at the Site (designated Operable Unit 1). Impacted groundwater (Operable Unit 2) will be addressed in a separate program. Previously, TTC retained Geomatrix to conduct a Remedial Investigation (RI) and Feasibility Study (FS) of the Site. The RI was completed during 2002-2004. The FS for Operable Unit 1 was completed in 2005.

The first known manufacturing facilities at the Glen Head Property were constructed in the late 1950s by the Lundy Electronics Company (Lundy). The Site was used by Lundy for a machine shop and electronics manufacturing until approximately 1978. Solvents, including trichloroethene (TCE), were reportedly used at the facility during this time. After 1978, machining activities were discontinued and solvent use at the Site was reduced. Lundy was acquired by TTC in the mid 1980s. TTC ceased operations at the facility in 1994. Since that time, the building space at the Site has been leased to a variety of small businesses. In October 2004, TTC began the process of vacating its tenants at the Site in order to facilitate the soil remediation program. As of September 2005, the Site has been vacant except for one tenant acting as an on-Site agent.

In June 2006, NYSDEC issued the Record of Decision (ROD) for Operable Unit 1 which presents the Site cleanup objectives and describes the selected remedy. The selected remedy includes the following remedial actions:

- Excavation of soils to achieve soil cleanup criteria
- Placement of 2-feet of clean soil and topsoil over excavated areas
- Cleanout and closure of impacted cesspools and leaching pools
- Development of a Site Management Plan
- Imposition of Institutional Controls

This RD/RA Work Plan describes the methods and procedures to be used in implementing the selected remedy, including a schedule of implementation.

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TransTechnology Corporation Glen Head Site
Glen Head, New York

1.0 INTRODUCTION

Geomatrix Consultants (Geomatrix) was retained by TransTechnology Corporation (TTC)[1] to prepare this Remedial Design and Remedial Action Work Plan (RD/RA Work Plan) for the TTC property located at One Robert Lane in Glen Head, New York (Site). This RD/RA Work Plan is specifically directed toward remediation of impacted soils at the Site. Impacted groundwater will be addressed in a separate program. Previously, TTC retained Geomatrix to conduct a Remedial Investigation (RI) and Feasibility Study (FS) of the Site. The RI was completed during 2002-2004. The FS for Site soils was completed in 2005. The Site location is shown on Figure 1. The Site Plan is presented on Figure 2.

The Site is currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 1-30-101 with a Classification 2. The RI/FS activities were performed pursuant to the Order on Consent Index # W1-0913-02-02 executed between TTC and the New York State Department of Environmental Conservation (NYSDEC). The RI/FS activities were conducted in accordance with the Remedial Investigation/Feasibility Study (RI/FS) Work Plan (RI/FS Work Plan) prepared by Geomatrix (dated July 2002). NYSDEC approved the RI/FS Work Plan by letter dated September 27, 2002.

1.1 GLEN HEAD SITE OPERABLE UNITS

In a letter dated June 25, 2004, NYSDEC separated the Site remediation work into two Operable Units. Operable Unit 1 (OU-1) was designated by NYSDEC for soil remediation. Operable Unit 2 (OU-2) was designated by NYSDEC for groundwater remediation. This RD/RA Work Plan addresses OU-1. Groundwater remediation (OU-2) will be addressed in a separate program.

[1] As noted in the December 8, 2006 letter from K. McIntosh (Geomatrix) to R. DeCandia (NYSDEC), as of October 12, 2006, TransTechnology Corporation has changed its name to the Breeze-Eastern Corporation. This was a change of name only; there has been no change in ownership, address, or project contact persons. In order to maintain consistency with the previous Site reports and the Record of Decision, the Site will continue to be referred to as the TransTechnology Glen Head Site in this RD/RA Work Plan.

1.2 SITE DESCRIPTION AND HISTORY

Figure 2 presents a Site Plan showing buildings and structures currently located on and adjacent to the TTC property. The Site encompasses 7.75 acres.

The first known manufacturing facilities at the Glen Head Property were constructed in the late 1950s by the Lundy Electronics Company (Lundy). The Site was used by Lundy for a machine shop and electronics manufacturing until approximately 1978. Solvents, including trichloroethene (TCE), were reportedly used at the facility during this time. After 1978, machining activities were discontinued and solvent use at the Site was reduced. Lundy was acquired by TTC in the mid 1980s. TTC ceased operations at the facility in 1994. Since that time, the building space at the Site has been leased to a variety of small businesses. In October 2004, TTC began the process of vacating its tenants at the Site in order to facilitate the soil remediation program. As of September 2005, the Site has been vacant except for one tenant acting as an on-Site agent for TTC.

There are several buildings on the Site. Building A was formerly used by Lundy as an R&D facility. Buildings B, C and D are one-story concrete block structures formerly used for circuit board cleaning and wave soldering operations. The remainder of the facility was housed in a group of joined buildings which were expanded over time from south to north (Buildings E, F, G, H and I on Figure 2).

Several private residences are located on adjacent properties to the west. The Sea Cliff Water District continues to operate a water storage tower on its property on Dumond Place (west of the Site). There is an automobile repair shop and retail stores to the south and a Long Island Railroad right of way to the east. Also to the east, there is an electrical substation and a Town of Oyster Bay equipment and road material storage yard.

The Site is relatively flat with surface water draining to a series of catch basins along the driveways and parking areas which act as dry wells and are identified as leaching pools on Figure 2. Sanitary waste at the Site drains to septic tanks and cesspools connected to leaching pools. The septic tank, cesspools, and leaching pools located adjacent to and east of Building E, F and G (near former degreasing and plating operations) were found to contain elevated levels of TCE and metals.

1.3 INTERIM REMEDIAL MEASURE

An Interim Remedial Measure (IRM) was conducted at the Site in September 2003. The IRM consisted of cleaning the six most impacted leaching pools and cesspools under the Underground Injection Control (UIC) program. The methods used to clean the structures were as described in the IRM Work Plan. A representative of the Nassau County Health Department (NCHD) was on-Site during the work and collected split samples of the excavation endpoints. Endpoint sample results showed the structures were successfully remediated.

1.4 ELEMENTS OF THE SELECTED REMEDY FOR OU-1

In June 2006, NYSDEC issued the Record of Decision (ROD) describing the selected remedy for OU-1. Elements of the remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. This will include a detailed plan for excavation of soils and UIC closure of the selected drainage structures (i.e., cesspools and leaching pools).

2. Excavation and off-site disposal of soils exceeding the cleanup objectives to prevent direct contact and further groundwater contamination.

3. UIC approved removal of impacted soil from selected cesspools and leaching pools for off-site disposal at a permitted facility, and removal/UIC closure of sanitary piping from these selected structures to prevent further groundwater contamination.

4. A two-foot cover will be backfilled over all excavated areas to prevent exposure to contaminated soils. The two-foot thick cover will consist of clean soil and top soil. The top six inches of soil will be of sufficient quality to support vegetation. Clean soil will constitute soil with no analytes in exceedance of NYSDEC TAGM 4046 soil cleanup objectives or local site background as determined by the procedure in DER 10 ("Tech Guide").

5. Development of a site management plan to: (a) address residual contaminated soils that may be excavated from the site during future redevelopment. The plan will require soil characterization and, where applicable, disposal/reuse in accordance with NYSDEC regulations; (b) evaluate the potential for vapor intrusion for any buildings developed on

the site, including provision for mitigation of any impacts identified; and (c) identify any use restrictions.

6. Imposition of an institutional control in the form of an environmental easement that will (a) require compliance with the approved site management plan; (b) limit the use and development of the property to restricted residential, commercial or industrial uses only; and (c) require the property owner to complete and submit to the NYSDEC a periodic certification.

7. The property owner will provide a periodic certification, prepared and submitted by a professional engineer or such expert acceptable to the NYSDEC, until the NYSDEC notifies the property owner in writing that this certification is no longer needed. This submittal will contain certification that the institutional controls are still in place, allow the NYSDEC access to the site, and that nothing has occurred that will impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan.

1.5 RD/RA WORK PLAN ORGANIZATION

The remainder of this RD/RA Work Plan is presented in eight sections. Section 2.0 describes the soil remediation program. Remediation of subsurface drainage structures is described in Section 3.0. Section 4.0 describes construction quality assurance and quality control (QA/QC). Supplemental work plans are identified and discussed in Section 5.0. Section 6.0 describes the provisions of the Site Management Plan to be prepared prior to redevelopment and/or reoccupation of the Site buildings. Project Documentation and Reporting requirements are presented in Section 7.0. The proposed schedule is included in Section 8.0.

2.0 SOIL REMEDIATION PROGRAM

2.1 SOIL REMEDIATION AREAS

Figure 3 shows the areas where soil remediation will be performed. Soils will be excavated from these areas to a minimum depth of 2 feet.

2.2 CLEANUP CRITERIA FOR SOILS

Tables 1 and 2 present the cleanup criteria for the soil excavations for organic chemicals and metals (other than arsenic), respectively.

The soil cleanup criteria for arsenic may be derived based on additional background sampling using the procedures presented in the RI/FS Work Plan. Alternatively, the NYSDEC Technical and Administrative Guidance Memorandum # 4046-Determination of Soil Cleanup Levels may be used to determine the arsenic cleanup criteria. If the background sampling is performed, background sample locations will be determined in consultation with (and subject to approval by) NYSDEC personnel.

2.3 SOIL EXCAVATION PLAN

2.3.1 Mobilization/Site Preparation

Activities to be performed include the following:

1. Contractor's equipment and supplies will be mobilized to the Site and may include construction trailers, earth moving machinery and supplies.

2. Buried utilities and any monitoring wells near the work areas will be located and marked.

3. Construction of an equipment decontamination wash pad. The wash pad will be designed to containerize wash water for appropriate disposal at an off-Site Treatment Storage and Disposal Facility (TSDF). Wash water will be temporarily stored on-Site in an appropriately sized polyethylene tank stored inside a Site building.

2.3.2 Health and Safety Plan

The selected excavation contractor will be required to prepare a project-specific health and safety plan (HASP) for their Site personnel. The HASP shall meet the health and safety requirements presented in Appendix A and with all other applicable health and safety regulations and guidelines including 29 CFR Part 1910.

2.3.3 Erosion Control Measures

Erosion controls will be placed around all active excavation areas and any temporary soil stockpiles. The controls will consist of silt fence and straw bale dikes placed in accordance with the document entitled, "*New York Standards and Specifications for Erosion and Sediment Control"* (prepared by the New York State Soil and Conservation Committee for the NYSDEC, August 2005) (NYSDEC Standards and Specifications).

2.3.4 Site Survey

Prior to conducting the excavations, the perimeter boundaries of each area to be excavated will be surveyed and marked. The actual excavation boundaries will be included on the project as-built drawing to be included in the Remedial Action Report (see Section 6.0).

2.3.5 Soil Excavation and Loading

Soil within the areas of the Site shown on Figure 3 will be excavated to a minimum depth of 2 feet below the existing grade. Additional excavation will be performed if confirmatory samples indicate the soil cleanup criteria (see Tables 1 and 2) have not been met (see Section 2.4). Soil will be loaded into roll off containers and stored on-Site until disposal approvals have been received (See Section 2.6).

Soil may be temporarily stored in stockpiles on asphalt areas. Temporary stockpiles will be covered at the end of each day and will be surrounded by a silt fence or straw bale dike. After loading, the asphalt surface of the temporary stockpile area will be washed. Wash water will be collected, handled and disposed with the decontamination water.

If confirmatory sampling indicates excavation below 2 feet is required to meet cleanup criteria, the excavation will proceed as follows:

1. Additional samples of the excavation base will be collected to define the area of exceedance. The defined area will be excavated an additional 6 inches, OR

2. The area defined by bisecting the distance between sample points adjacent to the exceedance will be excavated an additional 6 inches.

After completion of the additional excavation, the confirmatory sampling will be repeated. If the sample shows exceedance of the soil cleanup criteria, the procedure described above will be repeated until the confirmatory sample results are below the soil cleanup criteria.

Prior to leaving the work area and/or handling clean material, equipment which contacted potentially contaminated material will be decontaminated at the equipment decontamination pad. Dirt, grit and debris will be scraped or brushed off. High pressure, low volume hot water or steam supplemented by detergents will be used to wash the equipment within the pad. The decontamination wash water and soil/sediment will be collected, containerized and disposed of at an appropriate off-Site TSDF.

Any open excavation will be secured with temporary fencing material and/or barricaded at the end of each work day.

2.3.6 Dust Control/Vapor Control

The project Community Air Monitoring Plan (CAMP) will be in effect whenever excavation is occurring or excavated materials are being handled. The project CAMP is included in Appendix B. Chemicals of concern in the soil remediation areas are primarily metals and SVOCs. Although VOC emissions from the excavation are not anticipated, the VOC monitoring and response requirements provided for in the project CAMP will be in effect.

The project HASP and CAMP describe the particulate monitoring requirements and response levels. Dust controls will be implemented when measured concentrations exceed response levels. Water spraying will be used to control dust emissions as needed.

2.4 CONFIRMATORY SAMPLING

In accordance with the ROD, confirmatory samples will be obtained from the base of the excavations at a spacing of 100 feet. Samples will be obtained from 0 to 6-inches depth below the base of the excavation. The samples will be collected immediately following the completion of excavation activities at each location. The NYSDEC will be afforded the opportunity to obtain split confirmation samples.

Confirmatory samples will be analyzed for the parameters listed on Tables 1 and 2. QA/QC measures are described in Section 4.0.

Excavation depths will be determined in the field based on preliminary data. All final (meeting cleanup criteria) confirmatory samples will be surveyed and included on the project as-built drawing to be included in the Remedial Action Report (see Section 6.0).

2.5 BACKFILLING AND RESTORATION

The excavation will be backfilled replaced with clean fill soil and topsoil. At least 6 inches of topsoil capable of supporting grass will be placed. Soil will be deemed suitable for use as backfill if no analytes are in exceedance of the values presented in NYSDEC TAGM 4046 soil cleanup objectives or Site background as determined by the procedure in DER 10 ("Tech Guide"). Laboratory analyses will be conducted to confirm compliance with this requirement. Documentation and the source of the fill materials will be included in the Remedial Action Report (see Section 6.0).

Soil and topsoil will be placed in 6-inch lifts and proof rolled. The excavated areas will be graded to match existing topography as closely as practical. After backfilling the areas will be reseeded and tended until the grass cover is reestablished.

2.6 STORAGE AND DISPOSAL OF EXCAVATED SOIL

Excavated soil may be stored on-Site in lined and covered roll-off trailers. Waste characterization samples will be obtained and analyzed in accordance with applicable regulations and the requirements of the TSDF.

Alternatively, TTC (Breeze-Eastern) may elect to obtain disposal approvals prior to the start of excavation based on pre-excavation sampling. In such a case, the soil may be directly loaded into lined dump trailers and immediately transported to the TSDF without on-Site staging of roll-offs.

3.0 REMEDIATION OF SUBSURFACE DRAINAGE STRUCTURES

3.1 BACKGROUND

As indicated in Section 1.3, the IRM conducted at the Site in September 2003 involved cleaning six underground structures at the Site. Prior to beginning the work, a fact sheet describing the planned activities was prepared by NYSDEC and mailed to the residents and other interested parties in the vicinity. The work performed was in accordance with the approved IRM Work Plan (contained within the RI/FS Work Plan). A representative of the Nassau County Health Department (NCHD) was on-Site during the work and collected split samples of the excavation endpoints.

Locations of the structures remediated in 2003, designated C-3, C-4, C-5, LP-2, LP-3 and LP-11, are shown on Figure 4. The successful completion of the IRM in attaining the cleanup criteria (based on endpoint sampling) demonstrates the feasibility of using the IRM methodology for remediation of additional subsurface drainage structures at the Site.

The Site remediation, as described in the ROD, will include the remediation of 19 additional subsurface drainage structures (see Section 3.1.1.1, below). In addition sanitary piping leading to selected structures will be removed and or closed (see Section 3.1.2, below).

In addition to the remediation conducted pursuant to the ROD, several structures will be further investigated and/or remediated as part of the United States Environmental Protection Agency (USEPA) Underground Injection Control (UIC) Program (see Section 3.1.1.2, below).

3.1.1 Drainage Structures to be Remediated

3.1.1.1 Structures to be Remediated Pursuant to the ROD

In accordance with the ROD, the following structures (as identified on Figure 4) will be remediated: C-6, LP-1, LP-3A, LP-5, LP-7, LP-8, LP-10, LP-13, LP-16, LP-17, LP-19, LP-20, LP-21, LP-22, LP-24, LP-30, LP-31, LP-31A, and LP-34. Locations of these structures are shown on Figure 4.

3.1.1.2 Additional Investigation/Remediation Under the USEPA UIC Program

In Nassau County, the USEPA UIC Program is implemented by the Nassau County Department of Health (NCDH). In a memorandum dated October 31, 2006, NCDH requested additional investigation and/or remediation of subsurface structures which had not been slated for remediation under the ROD. This work was requested under the UIC Program.

On January 11, 2007, a meeting was held at the Site attended by representatives of TTC (Breeze-Eastern), Geomatrix, NYSDEC and NCDH. A Site inspection was conducted and a list of action items for additional investigation and/or remediation was developed to address the UIC issues. Table 5 lists the investigation and remedial action items to be implemented under the UIC Program.

Under the UIC Program, the following additional structures will be remediated: LP-12, LP-14, LP-15, LP-18, LP-23, LP-27, LP-33, and LP-35. As indicated in Table 5, several other drains, cesspools and leaching pools will be further investigated and/or sampled. These will be remediated if found to contain parameters above the cleanup levels listed in Tables 3 and 4. The investigation will include verification of the receiving structures for interior drains. If any new leaching pools are located during the investigation, these would be sampled and remediated if found to contain parameters above the cleanup levels listed in Tables 3 and 4.

All remediation, whether conducted under the ROD or USEPA UIC Program, will be conducted in accordance with the procedures and requirements presented in this RD/RA Work Plan.

3.1.2 Sanitary Piping to be Removed or Closed

Where present, sanitary piping and associated backfill surrounding the pipes from the building to the six previously remediated structures will be removed.

In addition, where present, sanitary piping/backfill will be removed from the following structures: LP-1, LP-3A, LP-5, LP-7, LP-8, LP-11, LP-13 and C-6 (see Figure 4).

3.2 CLEANUP CRITERIA FOR SUBSURFACE DRAINAGE STRUCTURES

Tables 3 and 4 present the cleanup criteria for the subsurface drainage structures for organic chemicals and metals, respectively.

3.3 PRE-CONSTRUCTION ACTIVITIES

3.3.1 Waste Characterization Sampling (Water)

Where present, a sample of the water in the cesspools and leaching pools to be remediated will be collected and composited into one sample for waste characterization analysis. The waste characterization sample will be analyzed for hazardous waste characteristics of ignitability, corrosivity and reactivity. In addition, the wastewater sample will be analyzed for total VOCs,

metals and SVOCs. Disposal approvals for the water will be obtained prior to the start of the project so that water storage on-Site will be brief.

3.3.2 Contractor Procurement

A qualified hazardous waste remediation contractor will be retained to perform the remedial construction activities.

3.3.3 Health and Safety Plan

The selected contractor will be required to prepare a project-specific HASP for their Site personnel. The HASP shall meet the health and safety requirements presented in Appendix A and with all other applicable health and safety regulations and guidelines including 29 CFR Part 1910.

3.3.4 Schedule

Prior to starting construction activities, a detailed construction schedule shall be prepared by the contractor. The agencies (NCDH and NYSDEC) will be notified of the mobilization start date at least seven days prior to the start date.

3.3.5 Survey

The locations of each structure to be remediated will be surveyed and included on the project as-built drawing to be included in the Remedial Action Report (see Section 6.0).

3.4 CONSTRUCTION ACTIVITIES

3.4.1 Mobilization/Site Preparation

Activities to be performed include the following:

1. Contractor's equipment and supplies will be mobilized to the Site and may include construction trailers, earth moving machinery and supplies.

2. Buried utilities and any monitoring wells near the work areas will be located and marked.

3. Construction of an equipment decontamination wash pad. The wash pad will be designed to containerize wash water for appropriate disposal at an off-Site TSDF. Wash water will be temporarily stored on-Site in an appropriately sized polyethylene tank stored inside a Site building.

3.4.2 Liquid Content Pumpout

The six previously remediated structures and the structures to be remediated in 2007 shall be inspected for the presence of any standing liquids. Where present, the liquid contents will be pumped out and temporarily stored in a tank trailer or equivalent. The liquid will be disposed of at an appropriate permitted off-site TSDF, based on its waste characterization data previously collected.

3.4.3 Sediment and Soil Removal

Prior to sediment/soil removal, the dome/cover to the cesspool/leaching pool will be removed and disposed of as a non-hazardous solid waste. The sediment/soil within each unit will be removed until staining and elevated photoionization detector (PID) readings are not observed or until a hard cement bottom (if present) is encountered, whichever occurs first. The sediment/soil will be removed by pumping and/or by an appropriate mechanical excavator (e.g. clamshell excavator, auger, orange peel dredge).Excavations will proceed until cleanup levels are attained in the endpoint samples. If there are any instances where this is not feasible (e.g., due to excavation stability), both NYSDEC and NCDH will be notified. It is noted that such a circumstance may entail additional investigation.

The excavated sediment/soil will be loaded into appropriate haul vehicles (e.g. dump trucks or roll off containers) for off-Site disposal. Sediment/soil loading will be performed in a manner that will prevent contact of excavated material with the truck ties or undercarriage to minimize tracking of excavated material. If required, excavated sediment/soil may be dewatered by adding cement, kiln dust or other appropriate absorbent.

Appropriate controls will be implemented to prevent dust generation or excessive organic vapor emissions during excavation, loading and unloading activities, as required based on the community air monitoring results (See Appendix B).

The surrounding structure of the units will not be visually inspected for structural integrity since the structures will be backfilled.

Prior to leaving the work area and/or handling clean material, equipment which contacted potentially contaminated material will be decontaminated at the equipment decontamination pad. Dirt, grit and debris will be scraped or brushed off. High pressure, low volume hot water or steam supplemented by detergents will be used to wash the equipment within the pad. The

decontamination wash water and soil/sediment will be collected, containerized and disposed of at an appropriate off-Site disposal facility.

Any open excavation will be secured with temporary fencing material and/or barricaded at the end of each work day.

Prior to transporting, the excavated material haulage vehicle shall be covered. Each waste haulage vehicle will be accompanied by completed shipping documents in accordance with the applicable rules and regulations.

3.4.4 Removal of Piping to Selected Structures

Sanitary piping (if present) to the structures identified in Section 3.1.2 will be removed between the structure and the building wall. A minimum of 1 foot of soil on each side of the pipe and 2 feet of soil beneath the pipe will be excavated and disposed with the sediment/soil excavated from the structures. The excavations will be screened using a PID and examined for the presence of stained soil. This includes the point at which the pipe crosses the building wall. Additional soil will be removed if PID measurements or visual examination suggest the soil has been impacted.

If PID measurements or visual observation indicate impacts beneath the building slab, a structural review will be conducted to determine if the slab can be cut to remove a portion of the pipe within the building without risk to the building structure. Excavation of the pipe within the building would then be performed if deemed appropriate by TTC in consultation with NYSDEC.

If impacted piping is left in place below the building due to impracticability of removal, its presence will be addressed in the Site Management Plan to be prepared prior to any reoccupation or redevelopment of the Site (See Section 4.0).

3.4.5 Confirmatory (Endpoint) Sampling

One soil sample will be collected from the excavation bottom within each cesspool/leaching pool. The endpoint soil sample will be collected by using direct push methodology (hand-driven core sampler or Geoprobe^{TM}) to obtain a 2-foot long soil core from the excavation base. The soil samples from the upper one foot section of the soil core will be submitted for analyses of the parameters listed in Tables 3 and 4. The lower portion of the samples will be examined and screened using a PID--these samples will be submitted for analyses if staining or elevated

PID measurements are encountered. The USEPA, NCDH and NYSDEC will be afforded the opportunity to obtain split confirmation samples.

Confirmatory samples will be analyzed for the parameters listed on Tables 1 and 2. QA/QC measures are described in Section 4.0. Excavation depths will be determined in the field based on preliminary data.

3.4.6 Backfilling

Upon completion of the sediment/soil removal and attainment of the cleanup criteria in endpoint samples, the structures will be backfilled with clean soils except as noted below. Backfilling will be conducted as described in the NCDH Floor Drain and Dry Well Closure Procedures. Clean soil will constitute soil with no analytes in exceedance of the values presented in NYSDEC TAGM 4046 soil cleanup objectives or Site background as determined by the procedure in DER 10. Laboratory analyses will be conducted to confirm compliance with this requirement. Documentation will be included in the Remedial Action Report (see Section 6.0).

Due to the continuing need for storm drainage (prior to redevelopment of the Site) several of the cleaned structures will be returned to service. These may include one or more of the following: the north parking lot drains (LP-10, LP-11, LP-13, LP-16, LP-17, and LP-19); drains along the north access road (LP-20, LP-21, LP-22 and LP-24); and the south parking lot drains (LP-30, LP-31, LP-31A and LP-34). After confirmation sampling and analysis, the excavated materials from leaching pools to be left in service will be replaced with clean sand as appropriate for continued operation. In addition, TTC (Breeze-Eastern) will seek to obtain "Authorization by Rule" from the USEPA for continued use of the selected structures to remain in service at the Site.

3.5 PROJECT CLOSEOUT/DEMOBILIZATION

Any equipment that may come in contact with potentially contaminated materials will be thoroughly decontaminated and washed prior to removal from the Site. After completion of all construction activities, equipment, supplies and materials mobilized to the property will be removed.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

4.1 CONSTRUCTION

Construction activities will be observed in the field by a qualified geologist or engineer working under the direction of a New York State licensed Professional Engineer.

4.2 SAMPLING AND ANALYSIS

The sampling and analyses described in this RD/RA Work Plan will be conducted in accordance with the requirements of the Quality Assurance Project Plan (QAPP) approved for the RI/FS sampling activities with the following exceptions:

1. Waste characterization samples will be collected in accordance with the requirements specified by the TSDF

2. QA/QC for confirmatory samples will rely on batch laboratory QA/QC rather than collection of field QA/QC samples (e.g., matrix spike, matrix spike duplicate and field duplicate samples will not be collected as the confirmatory samples are expected to be collected at a frequency of only one or two per day).

New York State Analytical Services Protocols (ASP) will be followed. All confirmatory sample analyses will be reported with Category B deliverables. Data Usability Summary Reports (DUSR) will be prepared by a party independent of the laboratory providing the analyses.

5.0 PROJECT-SPECIFIC WORK PLANS

Supplemental work plans in effect during the project are included in the Appendices. Appendix A presents the Project HASP. As indicated in Sections 2.0 and 3.0, remediation contractors will be required to prepare their own HASP which must meet all the requirements of the Project HASP.

Appendix B presents the Project CAMP. The CAMP specifies all community air monitoring requirements and response actions.

6.0 PROJECT DOCUMENTATION AND REMEDIAL ACTION REPORT

A Remedial Action Report will be prepared to document remedial activities. The report will contain the following applicable items listed in DER-10 Section 5.8:

1. A summary of the remedy as described in the ROD.
2. Descriptions of the remedial activities performed including the dates of the activities, the quantity of water, soil and sediment removed.
3. The final status (e.g. backfilled or left in place) of the remediated cesspool/leaching pools.
4. A description of any problems encountered during construction and their resolution.
5. A description of any deviations from the RD/RA Work Plan and the reason for any changes.
6. A listing of the waste streams, quantity of materials disposed and TSDF used.
7. All waste disposal shipping documents.
8. Tables of all confirmatory sample results.
9. Description of Site restoration activities.
10. Description of the source and quality of fill material used including documentation of laboratory analysis.
11. As-built drawings showing the surveyed limits of the excavated areas, remediated subsurface drainage structures and piping and locations of final confirmation samples.
12. Category B deliverables and DUSR for all confirmatory samples.
13. Certification.
14. Site Management Plan (see Section 7.1, below).

7.0 OTHER REQUIREMENTS OF THE REMEDY FOR OU-1

7.1 SITE MANAGEMENT PLAN

In accordance with the ROD, a Site Management Plan will be prepared. The Site Management Plan will include the following elements:

1. Provide procedures for handling residual contaminated soils that may be excavated from the site during future redevelopment or become exposed after demolition and removal of existing buildings. The plan will require soil characterization and, where applicable, disposal/reuse in accordance with NYSDEC regulations.

2. Evaluate the potential for vapor intrusion for any buildings developed on the site, including provision for mitigation of any impacts identified.

3. Identify any future use restrictions or institutional controls (see Section 7.2, below).

7.2 INSTITUTIONAL CONTROLS

The future use restrictions identified in the Site Management Plan will be incorporated into an institutional control in the form of an environmental easement that will provide for the following:

1. Require compliance with the approved Site Management Plan.

2. Limit the use and development of the property to restricted residential, commercial or industrial uses only.

3. Submittal to the NYSDEC of a periodic certification.

7.3 PERIODIC CERTIFICATION

The property owner will provide a periodic certification, prepared and submitted by a professional engineer or such expert acceptable to the NYSDEC, until the NYSDEC notifies the property owner in writing that this certification is no longer needed. This submittal will contain certification that the institutional controls are still in place and that nothing has occurred that will impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the Site Management Plan.

8.0 PROPOSED SCHEDULE

The proposed project schedule is presented below;

Milestone	***Target Completion Date***
RD/RA Work Plan Approval	July 20, 2007
Procure Qualified Contractors	August 31, 2007
Public Notification/Meeting (as appropriate)	September 7, 2007
Construction Begins	September 21, 2007
Construction Complete	November 2, 2007
Final Engineering Report Submitted	January 14, 2008
Site Management Plan Submitted	January 14, 2008
Institutional Controls Implemented	May 1, 2008

This schedule may be revised as appropriate to accommodate building demolition activities in the event the owner elects to remove the buildings prior to conducting remediation activities.

TABLES

TABLE 1
SURFACE SOIL CLEANUP OBJECTIVES FOR ORGANIC CHEMICALS

TransTechnology Site
Glen Head, New York

Chemical	*Soil Cleanup Objectives (µg/kg)*	*Cleanup Objective Type*
Vinyl chloride	200	(1)
Chloroethane	1,900	(1)
1,1,2-Trichloro-1,2,2-Trifluoroeth	6,000	(1)
Acetone	200	(1)
1,1-Dichloroethene	400	(1)
Methylene Chloride	100	(1)
Carbon Disulfide	2,700	(1)
Methyl tert-Butyl Ether	120	(1)
trans-1,2-Dichloroethene	300	(1)
1,1-Dichloroethane	200	(1)
2-Butanone	300	(1)
Chloroform	300	(1)
1,2-Dichloroethane	100	(1)
1,1,1-Trichloroethane	800	(1)
Carbon tetrachloride	600	(1)
Benzene	60	(1)
Trichloroethene	700	(1)
4-Methyl-2-pentanone	1,000	(1)
Toluene	1,500	(1)
Tetrachloroethene	1,400	(1)
Chlorobenzene	1,700	(1)
Ethylbenzene	5,500	(1)
(m+p)Xylene	1,200	(1)
o-Xylene	1,200	(1)
Isopropylbenzene	500	(1)
1,1,2,2-Tetrachloroethane	600	(1)
1,3-Dichlorobenzene	1,600	(1)
1,4-Dichlorobenzene	8,500	(1)
1,2-Dichlorobenzene	7,900	(1)
1,2,4-Trichlorobenzene	3,400	(1)
Phenol	30 or MDL	(1)
2-Chlorophenol	800	(1)
2-Methylphenol	100 or MDL	(1)
4-Methylphenol	900	(1)
Nitrobenzene	200 or MDL	(1)
Isophorone	4,400	(1)
2-Nitrophenol	330 or MDL	(1)
2,4-Dichlorophenol	400	(1)
Naphthalene	1,300	(1)
4-Chloroaniline	220 or MDL	(1)
4-Chloro-3-methylphenol	240 or MDL	(1)

TABLE 1
SURFACE SOIL CLEANUP OBJECTIVES FOR ORGANIC CHEMICALS

TransTechnology Site
Glen Head, New York

Chemical	*Soil Cleanup Objectives (µg/kg)*	*Cleanup Objective Type*
2-Methylnaphthalene	36,400	(1)
2,4,5-Trichlorophenol	100	(1)
2-Nitroaniline	430 or MDL	(1)
Acenaphthylene	41,000	(1)
Dimethyl phthalate	2,000	(1)
2,6-Dinitrotoluene	1,000	(1)
Acenaphthene	50,000	(1)
3-Nitroaniline	430 or MDL	(1)
2,4-Dinitrophenol	200 or MDL	(1)
Dibenzofuran	6,200	(1)
4-Nitrophenol	100	(1)
Fluorene	50,000	(1)
Diethylphthalate	7,100	(1)
Hexachlorobenzene	410	(1)
Pentachlorophenol	1000 or MDL	(1)
Phenanthrene	50,000	(1)
Anthracene	50,000	(1)
Di-n-Butylphthalate	8,100	(1)
Fluoranthene	50,000	(1)
Pyrene	50,000	(1)
Butyl benzyl phthalate	50,000	(1)
Benzo(a)anthracene	510	(2)
Chrysene	720	(2)
Bis(2-Ethylhexyl)phthalate	50,000	(1)
Di-n-octyl-phthalate	50,000	(1)
Benzo(b)fluoranthene	1,100	(1)
Benzo(k)fluoranthene	1,100	(1)
Benzo(a)pyrene	590	(2)
Indeno(c,d)pyrene	3,200	(1)
Dibenz(a,h)anthracene	140	(2)
Benzo(g,h,i)perylene	50,000	(1)

Notes:
(1) TAGM 4046 Recommended Soil Cleanup Objective.
(2) Representative Soil Background Concentration.

TABLE 2
SURFACE SOIL CLEANUP OBJECTIVES FOR METALS

TransTechnology Site
Glen Head, New York

Chemical	*Soil Cleanup Objectives (µg/kg)*	*Cleanup Objective Type*
Arsenic	TBD	TBD
Barium	300	(1)
Cadmium	1.2	(2)
Chromium	19.1	(2)
Cobalt	30	(1)
Copper	119	(2)
Iron	17,000	(2)
Lead	145	(2)
Mercury	0.59	(2)
Nickel	13	(1)
Selenium	2	(1)
Vanadium	150	(1)
Zinc	308	(2)

TBD: To Be Determined

Notes:
(1) TAGM 4046 Recommended Soil Cleanup Objective.
(2) Representative Soil Background Concentration.

TABLE 3
SUBSURFACE STRUCTURE
CLEANUP OBJECTIVES FOR ORGANIC CHEMICALS

TransTechnology Site
Glen Head, New York

Chemical	*Soil Cleanup Objectives (µg/kg)*	*Cleanup Objective Type*
Vinyl chloride	200	(1)
Chloroethane	1,900	(1)
1,1,2-Trichloro-1,2,2-Trifluoroeth	6,000	(1)
Acetone	200	(1)
1,1-Dichloroethene	400	(1)
Methylene Chloride	100	(1)
Carbon Disulfide	2,700	(1)
Methyl tert-Butyl Ether	120	(1)
trans-1,2-Dichloroethene	300	(1)
1,1-Dichloroethane	200	(1)
2-Butanone	300	(1)
Chloroform	300	(1)
1,2-Dichloroethane	100	(1)
1,1,1-Trichloroethane	800	(1)
Carbon tetrachloride	600	(1)
Benzene	60	(1)
Trichloroethene	700	(1)
4-Methyl-2-pentanone	1,000	(1)
Toluene	1,500	(1)
Tetrachloroethene	1,400	(1)
Chlorobenzene	1,700	(1)
Ethylbenzene	5,500	(1)
(m+p)Xylene	1,200	(1)
o-Xylene	1,200	(1)
Isopropylbenzene	500	(1)
1,1,2,2-Tetrachloroethane	600	(1)
1,3-Dichlorobenzene	1,600	(1)
1,4-Dichlorobenzene	8,500	(1)
1,2-Dichlorobenzene	7,900	(1)
1,2,4-Trichlorobenzene	3,400	(1)
Phenol	30 or MDL	(1)
2-Chlorophenol	800	(1)
2-Methylphenol	100 or MDL	(1)
4-Methylphenol	900	(1)
Nitrobenzene	200 or MDL	(1)
Isophorone	4,400	(1)
2-Nitrophenol	330 or MDL	(1)
2,4-Dichlorophenol	400	(1)
Naphthalene	1,300	(1)
4-Chloroaniline	220 or MDL	(1)
4-Chloro-3-methylphenol	240 or MDL	(1)

TABLE 3
SUBSURFACE STRUCTURE
CLEANUP OBJECTIVES FOR ORGANIC CHEMICALS

TransTechnology Site
Glen Head, New York

Chemical	*Soil Cleanup Objectives (µg/kg)*	*Cleanup Objective Type*
2-Methylnaphthalene	36,400	(1)
2,4,5-Trichlorophenol	100	(1)
2-Nitroaniline	430 or MDL	(1)
Acenaphthylene	41,000	(1)
Dimethyl phthalate	2,000	(1)
2,6-Dinitrotoluene	1,000	(1)
Acenaphthene	50,000	(1)
3-Nitroaniline	430 or MDL	(1)
2,4-Dinitrophenol	200 or MDL	(1)
Dibenzofuran	6,200	(1)
4-Nitrophenol	100	(1)
Fluorene	50,000	(1)
Diethylphthalate	7,100	(1)
Hexachlorobenzene	410	(1)
Pentachlorophenol	1000 or MDL	(1)
Phenanthrene	50,000	(1)
Anthracene	50,000	(1)
Di-n-Butylphthalate	8,100	(1)
Fluoranthene	50,000	(1)
Pyrene	50,000	(1)
Butyl benzyl phthalate	50,000	(1)
Benzo(a)anthracene	510	(2)
Chrysene	720	(2)
Bis(2-Ethylhexyl)phthalate	50,000	(1)
Di-n-octyl-phthalate	50,000	(1)
Benzo(b)fluoranthene	1,100	(1)
Benzo(k)fluoranthene	1,100	(1)
Benzo(a)pyrene	590	(2)
Indeno(c,d)pyrene	3,200	(1)
Dibenz(a,h)anthracene	140	(2)
Benzo(g,h,i)perylene	50,000	(1)

Notes:
(1) TAGM 4046 Recommended Soil Cleanup Objective.
(2) Representative Soil Background Concentration.

TABLE 4
SUBSURFACE STRUCTURE CLEANUP OBJECTIVES FOR METALS

TransTechnology Site
Glen Head, New York

Chemical	*Soil Cleanup Objectives (µg/kg)*	*Cleanup Objective Type*
Arsenic	TBD	TBD
Barium	300	(1)
Cadmium	10	(3)
Chromium	50	(3)
Cobalt	30	(1)
Copper	119	(2)
Iron	17,000	(2)
Lead	145	(2)
Mercury	0.59	(2)
Nickel	13	(1)
Selenium	2	(1)
Vanadium	150	(1)
Zinc	308	(2)
Silver	5	(3)

TBD: To Be Determined

Notes:
(1) TAGM 4046 Recommended Soil Cleanup Objective.
(2) Representative Soil Background Concentration.
(3) Cleanup objectives for cadmium, chromium, and silver were recommended by Nassau County Department of Health.

TABLE 5

ADDITIONAL UIC ACTION ITEMS: JANUARY 11, 2007 SITE MEETING [1]
REMEDIATION OF SUBSURFACE DRAINAGE STRUCTURES

TransTechnology Site
Glen Head, New York

Location	*Action Required*
D-3	Investigate Discharge [2]
D-4, D-5, D-6	Seal/Close
D-7 (Electric Room Drain)	Investigate Discharge [2], Seal/Close
C-1	Sample/Remediate as Appropriate [3]
C-2	Seal/Close
LP-3	Verify Construction/Sample as Appropriate [3]
LP-4	Verify Construction/Sample as Appropriate [3]
LP-5	Check for Settling Tank
LP-6	Sample/Remediate as Appropriate [3]
LP-9	Seal/Close (if sanitary)
LP-12	Remediate
LP-14	Remediate
LP-15	Remediate
LP-18	Remediate
LP-23	Remediate
LP-25	Locate Drains, Sample/Remediate as Appropriate [3]
LP-26	Locate Drains, Sample/Remediate as Appropriate [3]
LP-27	Remediate
LP-28	Verify Construction/Sample as Appropriate [3]
LP-29	Verify Construction/Sample as Appropriate [3]
LP-32	Verify Construction/Sample as Appropriate [3]
LP-33	Remediate
LP-35 [4]	Remediate
Plating Area Tee into Roof Drain	Investigate Discharge [2]
Bldg. E. Tee into Roof Drain	Investigate Discharge [2]

Notes:

[1] Action items as determined during site meeting held January 11, 2007 attended by representatives of Breeze-Eastern, Geomatrix, NYSDEC and NYSDOH.

[2] Investigate discharge and verify the discharge location has been sampled. If discharge location has not been previously sampled, collect samples and remediate as appropriate.

[3] Remediate structure if sample results exceed cleanup objectives (see Tables 3 and 4).

[4] Previously unknown leaching pool discovered during the site inspection, January 11, 2007.

FIGURES

SOURCE:

USGS HICKSVILLE AND SEA CLIFF, NY QUADRANGLES.

figure 1

SITE LOCATION MAP
TRANSTECHNOLOGY SYSTEMS AND SERVICES
Glen Head, New York

0 50' 100'

DUMOND PLACE

ROBERT LANE

A

B

C

D

E

F

G

H

I

1 STORY MASONRY BUILDING

1 STORY MASONRY BUILDING

APPROXIMATE LOCATION OF FORMER VAPOR DEGREASING AND CHROME PLATING OPERATIONS

LP1 LP2 LP3 LP3A LP4 LP5 LP6 LP7 LP8 LP9 LP11 LP12 LP13 LP14 LP15 LP16 LP17 LP18 LP19 LP20 LP21 LP22 LP23 LP24 LP25 LP26 LP27 LP29 LP30 LP31 LP31A LP32 LP33 LP34 LP35

D1 D2 D3 D4 D5 D6

C1 C2 C3 C4 C5 C6

LONG ISLAND RAILROAD

LONG ISLAND RAILROAD

LEGEND

C1 CESSPOOL LOCATION

LP20 LEACHING POOL LOCATION

D2 DRAIN LOCATION

SITE PLAN
TRANSTECHNOLOGY CORPORATION
GLEN HEAD, NEW YORK

GEOMATRIX

Project No. 6238

Figure 2

DATE: 05/07/2002
FILEPATH: C:\6238\6238-001
DRAFTED BY: JM

0 50’ 100’

DUMOND PLACE

ROBERT LANE

SURF-10

SURF-7

SURF-4

SURF-1

SURF-8

SURF-9

SURF-6

SURF-5

SURF-2

SURF-12

SURF-18

SURF-17

SURF-19

17-3

17-2

17-1

19-1

19-2

19-3

SURF-21

SURF-3

16-2

SURF-16

16-1

16-3

SURF-20

20-3

20-2

20-1

SURF-11

22-1

22-2

22-3

SURF-22

15-1

15-2

15-3

SURF-15

SURF-14

SURF-13

A

B

C

D

E

F

G

H

I

1 STORY MASONRY BUILDING

1 STORY MASONRY BUILDING

LONG ISLAND RAILROAD

LONG ISLAND RAILROAD

LEGEND

SURF-11 ■ RI SURFACE SOIL SAMPLE LOCATION

17-3 ● SUPPLEMENTAL RI SOIL SAMPLE LOCATION

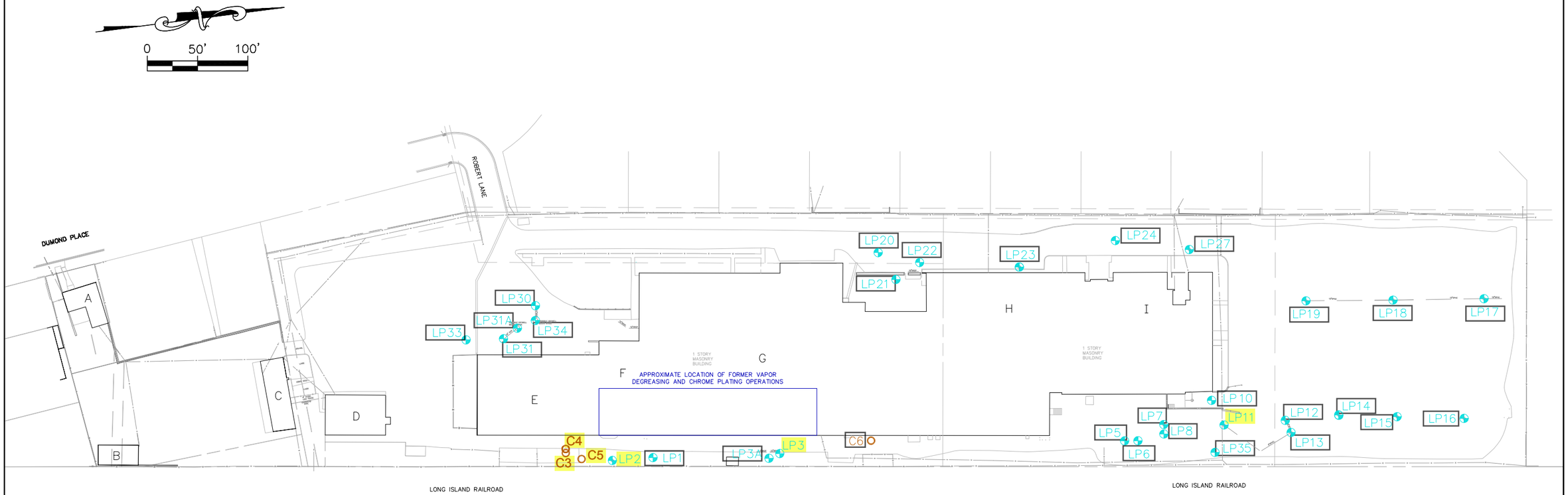
AREA OF EXCEEDANCE OF SURFACE SOIL CLEANUP OBJECTIVES

DATE: 10/08/2003
FILEPATH: C:\6238\6238-043
DRAFTED BY: JM

APPROXIMATE AREAS OF
IMPACTED SURFACE SOILS
TRANSTECHNOLOGY CORPORATION
GLEN HEAD, NEW YORK

GEOMATRIX

Project No.	Figure
6238	3



NOTES

(1) Additional structures may be remediated based on the results of sampling (see Table 5).

LEGEND

- Structure previously remediated in 2003
- Structure to be remediated in 2006
- C1 — Cesspool Location
- LP20 — Leaching Pool Location

DATE: 05/07/2002
FILEPATH: C:\6238\6238-001
DRAFTED BY: JM

Subsurface Drainage Structures To Be Remediated[1]
Transtechnology Corporation
Glen Head Site

GEOMATRIX

Project No.	Figure
6238	**4**

APPENDIX A

Project Health and Safety Plan

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

APPENDIX A
SITE HEALTH AND SAFETY PLAN

Remedial Design/Remedial Action Work Plan
TransTechnology Corporation Glen Head Site
Glen Head, New York

1.0 PURPOSE

This site Health and Safety Plan outlines the health and safety procedures that shall be followed during field work conducted at the site. The observance and practice of the procedures in this plan are mandatory for all Geomatrix employees at the site. All subcontractors shall be made aware of the requirements of this plan; however, subcontractors are required to have their own plan for the health and safety of their own employees and for following all applicable federal, state, and local regulations.

This plan has been reviewed by the Project Manager and Project Health and Safety Officer. Prior to entering the site, Geomatrix personnel shall read this plan and be familiar with health and safety procedures required when working on site. A copy of the plan shall be available on site for inspection and review.

2.0 ADMINISTRATIVE INFORMATION

Project Name: Remediation of Soils and Cesspool Sediments – Glen Head Site.

Project Start Date: October, 2006 Project Number: 006238.000.0

Project Address: One Robert Lane, Glen Head, New York, 11545

Client: TransTechnology Corporation

Client Contact: Mr. Art Zottola

Telephone No.: (908) 580-5121 (Work)

Project Manager: Kelly McIntosh

Telephone No.: (716) 565-0624 (Work)

Project Health & Safety Officer: Kelly McIntosh

Telephone No.: (716) 565-0624 (Work)

Site Safety Officer: Geomatrix Employee To Be Determined

Telephone No.: (716) 565-0624 (Work)

3.0 PROJECT DESCRIPTION

3.1 SITE HISTORY

Refer to Section 1.0 of RD/RA Work Plan.

3.2 SITE PHYSICAL DESCRIPTION

Refer to Section 1.0 of RD/RA Work Plan.

3.3 TYPE OF FIELD WORK

Excavation and off-Site disposal of impacted soil and leaching pool/cesspool sediment.

3.4 SCOPE OF FIELD ACTIVITIES

List and number all field tasks for project:

1. Mobilization of equipment and subcontractors;
2. Soil excavation (refer to Section 2.0 of RD/RA Work Plan)
3. Excavation of sediments/soil and closure of impacted cesspools and leaching pools (refer to Section 3.0 of RD/RA Work Plan)
4. Post-excavation confirmatory sampling of soils and cesspools/leaching pools.

4.0 PRIMARY RESPONSIBILITIES

4.1 PROJECT MANAGER

The Project Manager (PM) shall:

1. direct all Geomatrix personnel involved in investigative, monitoring, and remedial activities at the site and vicinity;

2. make the Project Health and Safety Officer aware of all pertinent project developments and plans;

3. make available the resources that are necessary for a safe working environment; and

4. maintain communications with the client, as necessary.

4.2 PROJECT HEALTH AND SAFETY OFFICER

The Project Health and Safety Officer (PHSO) shall:

1. direct all health and safety aspects of investigative, monitoring, and remedial activities conducted by Geomatrix personnel at the site and vicinity;

2. ensure that all Geomatrix personnel have received required training, are aware of the potential hazards associated with site operations, have been instructed in the work practices necessary for personal health and safety, and are familiar with the site Health and Safety Plan's procedures for all scheduled activities and for dealing with emergencies;

3. direct required exposure monitoring to assess site health and safety conditions;

4. prepare any accident/incident reports;

5. modify the site Health and Safety Plan as required based on accidents/incidents and findings regarding personnel exposures and work practices; and

6. report all accidents/incidents and findings regarding personnel exposure and work practices to the Project Manager and PHSO.

4.3 SITE SAFETY OFFICER

The Site Safety Officer (SSO) shall:

1. ensure that appropriate personal protective equipment is available for Geomatrix site personnel and enforce proper utilization of personal protective equipment by all on-site Geomatrix personnel;

2. with guidance from the PHSO, observe subcontractor's procedures with respect to health and safety. If the SSO believes that a subcontractor's personnel are or may be exposed to an immediate health hazard, the SSO shall suspend the subcontractor's site work. If the subcontractor's personnel do not have required protective equipment, the SSO shall consult with the PM or PHSO before proceeding with the work;

3. implement the site Health and Safety Plan and report any observed deviations from site conditions anticipated in the plan;

4. conduct site safety briefings as needed;

5. calibrate monitoring equipment daily and properly record and file results;

6. under direction of the PHSO perform required exposure monitoring;

7. maintain monitoring equipment or arrange maintenance as necessary;

8. assume other duties as directed by the PM or PHSO; and

9. report observed accidents/incidents or inadequate work practices to the PHSO and the PM.

4.4 PROJECT PERSONNEL

Project personnel involved in on-site investigations and operations shall:

1. take reasonable precautions to prevent injury to themselves and to their fellow employees;

2. perform only those tasks that they can do safely and immediately report accidents and/or unsafe conditions to the SSO or PHSO;

3. follow the procedures set forth in the site Health and Safety Plan and report to the SSO or PHSO any observed deviations from the procedures described in the plan on the part of Geomatrix or subcontractor personnel; and

4. inform the PM and PHSO of any physical conditions that might affect their ability to perform the planned field tasks.

4.5 TRAINING REQUIREMENTS

All project personnel must comply with OSHA regulations specified in 29 CFR 1910.120 and CCR Title 8, Section 5192. These include completion of a 40-hour health and safety training course, an annual 8-hour refresher training, and participation in Geomatrix Consultants' medical surveillance program and respiratory protection program.

Additional site-specific training that covers on-site hazards, personal protection requirements, decontamination procedures, and emergency response information as outlined in this site Health and Safety Plan will be given by the PHSO or SSO before beginning on-site work. Site-specific training briefings will be documented on a "Project Health and Safety Field Meeting Form" provided at the end of this plan. We do not anticipate that field staff will be occupationally exposed to blood or potentially infectious materials during the course of this project.

4.6 MEDICAL SURVEILLANCE

All Geomatrix project site personnel shall participate in the Geomatrix medical surveillance program, which includes annual audiometric and physical examinations for employees involved in hazardous waste or materials projects. It requires that all such personnel have medical clearance before being issued a respirator and participating in field activities. Frequency of medical examinations which complies with 29 CFR 1910.120(f3) and CCR 8 5192(f3), occurs:

1. prior to performing field work;
2. at least once every 12 months;
3. at termination of employment;
4. upon occurrence of possible overexposure;
5. more frequently if deemed necessary by a physician.

5.0 HAZARD ASSESSMENT

An assessment of the potential hazards that may be encountered during field activities at the site are designated by field task in Table 5.0 and are discussed below.

5.1 POTENTIAL CHEMICAL HAZARDS AT SITE

Listed below are hazardous substances that have been found or are suspected to be present in soil and cesspool/leaching pool sediment at the site.

Hazardous Substances Known or Suspect at Site:

CHEMICAL	MEDIA	MAXIMUM CONCENTRATION	ROUTES OF EXPOSURE
Total Volatile organic compounds	Soil and sediment	7,000 mg/kg	Inhalation, ingestion, and skin or eye contact
Chromium	Soil and sediment	6,000 mg/kg	Inhalation, ingestion, and skin or eye contact

Air monitoring requirements and action levels related to potential chemical hazards at the site are discussed in Section 6.0 of this health and safety plan.

TABLE 5.0

ANTICIPATED HAZARDS

TASK	HAZARDS															
		PHYSICAL														
	Chemical	Trip/Fall	Heavy Equipment	Underground Utilities	Overhead Power Lines	Noise	Heat Stress	Cold Stress	Sunburn	Drilling	Excavation	Confined Space	Traffic	Biological	Explosive	General Safety
Mobilization		X	X		X		X	X	X				X			X
Soil Excavation/Handling	X	X	X	X	X	X	X	X	X		X		X			X
Cesspool/Leachpool Remediation	X	X	X	X	X	X	X	X	X		X		X	X		X
Confirmatory Sampling	X	X	X				X	X	X		X		X			

5.2 POTENTIAL PHYSICAL HAZARDS AT SITE

Potential physical hazards, as those listed in Table 5.0, are discussed below.

5.2.1 Underground Utility Hazards

An underground utility check shall be performed prior to initiating any subsurface investigation or work. The check will include:

__X__ Private Locator: 1-800-962-7962
__X__ Plans Check. Facility Contact: TransTechnology
_____ Geophysical Survey.

Additional Information: _____

_____

5.2.2 Overhead Power Lines

Whenever possible, avoid working under overhead high voltage lines. The following are minimum clearances for overhead high voltage lines.

Normal Voltage (phase to phase)				Minimum Required Clearance (feet)
more than	750	-	50,000	10
more than	50,000	-	75,000	11
more than	75,000	-	125,000	13
more than	125,000	-	175,000	15
more than	250,000	-	379,000	21
more than	370,000	-	550,000	27
more than	550,000	-	1,000,000	42

(Reference: CCR Title 8, Section 2946, Table II)

5.2.3 Noise Hazards

Wear hearing protection when working near large heavy equipment, such as drill rigs or earth movers, or in other noisy conditions. As a general rule, hearing protection should be worn when two people standing within 2 feet of each other cannot communicate at normal conversational voice levels.

5.2.4 Heat Stress Hazards

Heat stress is a major hazard, especially for workers wearing protective clothing. To avoid heat stress, drink plenty of fluids and take periodic work breaks.

The signs, symptoms, and treatment of heat stress include:

- Heat rash, which may result from exposure to heat or humid air.

- Heat cramps, which are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include: muscle spasms and pain in the hands, feet, and abdomen. Persons experiencing these symptoms should rest in a cooler area, drink cool (not cold) liquids and gently massage cramped muscles.

- Heat exhaustion, which occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include: pale, cool, moist skin; heavy sweating; dizziness; nausea; and fainting. Persons experiencing these symptoms should lie down in a cooler area, drink cool liquids with electrolytes (Gatorade, etc.), remove any protective clothing, and cool body with wet compresses at forehead, back and neck, and/or armpits.

- Heat stroke, which is the more serious form of heat stress. Temperature regulation fails and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms are: red, hot, usually dry skin; lack of or reduced perspiration; nausea; dizziness and confusion; strong, rapid pulse; and coma.

5.2.5 Cold Stress Hazards

Exposure to cold can cause the body's internal temperature to drop to a dangerously low level. This is called hypothermia. Exposure to temperatures below freezing can cause frostbite of hands, feet, and face.

Symptoms of hypothermia include:

- vague, slow, slurred speech
- forgetfulness, memory lapses
- inability to use hands
- frequent stumbling
- drowsiness.

To prevent hypothermia, stay dry and avoid exposure. Wear sufficient clothing in layers such that outer clothing is wind- and waterproof and inner layers retain warmth (wool or polypropylene). Keep hands and feet well protected at all times.

5.2.6 Sunburn Hazards

Skin exposure to ultraviolet radiation can result in sunburn. Use long-sleeved shirts, hats, and sunscreen to protect against sunburn.

5.2.7 Drilling Hazards

Drilling hazards include noise, heavy equipment operation, rotative/moving parts, and trip/fall hazards. Non-drilling personnel should stay away from the area around the borehole during drilling. Hard hats and safety glasses shall be worn by all personnel within 30 feet of the raised mast of an operating drill rig. All personnel will be instructed as to the location of the "kill switch" on the drill rig.

5.2.8 Trench/Excavation Hazards

OSHA requires that in all excavations, workers exposed to potential cave-ins must be protected by sloping or benching the sides of the excavation, or placing a shield between the side of the excavation and the work area. Any excavation 4 feet deep or deeper must have adequate means of access/egress and must be tested by a competent person for oxygen deficiency or hazardous atmosphere before anyone enters. Entry into excavations/trenches 5 feet deep or deeper requires an OSHA permit and compliance with OSHA regulations for trenching and excavation.

During the work for this project, it is not anticipated that personnel will enter trenches/excavations deeper than 4 feet. If soil is not inherently stable at this depth, appropriate protective measures (sloping, shoring, etc.) will be used. Care will be taken when sampling the excavation area from above to be sure the ground is stable and not undercut.

NOTE: If entry into trenches/excavations greater than 4 feet deep is required, contact PHSO prior to entry.

5.2.9 Confined Space

Not applicable. Cesspool and leaching pool structures qualify as confined spaces; however all excavation, inspection and sampling activities will take place without entry into the structures.

5.2.10 Traffic Hazards

Construction vehicles and excavation equipment.

5.2.11 Biohazards

Possible during cesspool cleanout.

5.2.12 Other Hazards

Slips, trips and falls.

5.3 GENERAL HAZARDS

In working with or around any hazardous or potentially hazardous substances or situations, site personnel should plan all activities before starting any task. Site personnel shall identify health and safety hazards involved with the work planned and consult with the PHSO or SSO as to how the task can be performed in the safest manner, if he/she has any uncertainties.

Common safety hazards include trip/fall hazards and those associated with working around heavy equipment. All field personnel will adhere to the following general safety rules.

1. Wear protective equipment and clothing provided, when required
2. Wear a hard hat and safety glasses in all construction areas and during drilling activities.
3. Wear sturdy work boots or shoes at the site. Steel-toed boots are required during drilling activities.
4. Do not eat, drink, or use tobacco in restricted work areas.
5. Prevent splashing of materials containing chemicals.

6. Prevent back injury by never lifting or carrying a load that is heavier than you can comfortably handle. When lifting heavy objects, bend the knees and use the leg muscles.

7. Keep all heat sources away from combustible liquids, gases, or any flammable materials. When working in areas where combustible gases are present, use only intrinsically safe (non-sparking) equipment.

8. Field personnel shall be familiar with the physical characteristics of investigations, including:

    - wind direction in relation to restricted work areas
    - accessibility of other personnel, equipment, and vehicles
    - areas of known or suspected chemicals in soil and groundwater
    - site access
    - nearest water sources
    - location of communication devices.

9. Personnel and equipment in restricted work areas should be limited to the number necessary to perform the task at hand.

10. All wastes generated during investigative activities at the site shall be disposed of as directed by the PM.

11. Inspect power cords for damage such as cuts and frays. Suspend cords only with nylon rope or plastic ties.

12. When in doubt of your safety, it is better to overprotect.

13. Practice defensive driving.

14. If site activities include the use of a drill rig, all on-site personnel should know the location of the "kill switch."

15. A first-aid kit and a type ABC fire extinguisher shall be kept at the site and/or in a field vehicle when performing field work.

6.0 AIR MONITORING

The following air monitoring equipment will be used.

- _X_ Photoionization Detector (PID)
- ____ Flame Ionization Detector (FID)
- ____ Draeger Pump and Tubes (specify tubes)
- _X_ Combustible Gas Meter (CGM)
- ____ Oxygen Meter (O2)
- _X_ Dust (Particle) Meter
- ____ Hydrogen Sulfide Monitor
- ____ Carbon Monoxide Meter

The type and frequency of air monitoring for each work task is specified below. Air monitoring instruments will be calibrated and maintained according to manufacturer's specifications. Calibration information and air monitoring results will be recorded in project field notes.

	TASK	INSTRUMENT	FREQUENCY
1.	Soil Excavation and sampling	PID and Particulate Meter	Continuous during excavation and sampling activities
2.	Cesspool/Leaching Pool excavation, inspection and sampling	PID/CGM Monitor	Continuous during cesspool leaching pool excavation, inspection and sampling

6.1 ACTION LEVELS

Respirators shall be worn when air monitoring indicates that concentrations exceed the following action levels:

Wear respirator if PID reads __>10__ ppm (sustained reading in the breathing zone)

Stop work if PID reads __>100__ ppm (sustained reading in the breathing zone)

Stop work and notify the PM or PHSO if Combustible Gas Meter reads 10% Lower Explosive Limit (LEL). Work will be initiated with the implementation of engineering controls including, but not limited to the following:

- Addition of potable water to the borehole to maintain a pressure head to minimize gas emissions;
- Mechanical blower directing combustible gases away from borehole; or
- The insertion of nitrogen gas into the borehole.

Evacuate area and notify appropriate emergency services if Combustible Gas Meter reads 25% LEL.

7.0 PERSONAL PROTECTIVE EQUIPMENT

The following personal protective equipment (PPE) will be used as specified below.

PPE Required				
Describe Task	Mobilization	Soil Excavation	Cesspool/Leaching Pool Remediation	Confirmatory Sampling
Steel-Toed Boots (Rubber)			X	
Steel-Toed Boots (Leather)	X	X		X
Hard Hat	X	X	X	X
Safety Glasses/Goggles	X	X	X	X
Ear Plugs		AV	AV	
Gloves		AV	Nitrile	Nitrile
Tyvek Coverall		AV	AV	AV
Saranex Coverall				
Half-Face Respirator		AV	AV	AV
Full-Face Respirator				
Respirator Cartridge (specify type):		Comb.	Comb.	Comb.
Orange Vests				
Other (specify)				
Life Vests				

Key: X = PPE Required
AV = Have available at work site
Glove Types = Nitrile, Vinyl, Neoprene, Butyl
Other – specify

Cartridge Types = Organic Vapor (OV)
HEPA Filter (HEPA)
Combination OV and HEPA (Comb.)

8.0 SITE CONTROL

The purpose of site control is to minimize the potential exposure to site hazards, to prevent vandalism at the site, and to provide adequate facilities for workers. Work area controls and decontamination areas will be provided to limit the potential for chemical exposure associated with site activities.

8.1 WORK AREA

An exclusion zone will be set up immediately surrounding the site work areas. Only authorized personnel shall be permitted access to the exclusion zone. If practical, the exclusion zone will be cordoned with barriers, cones, or fencing to limit unauthorized access. No eating, drinking, or smoking are allowed in the exclusion zone.

8.2 DECONTAMINATION AREAS

Equipment and personnel decontamination areas will be set up adjacent to the work exclusion zones. All equipment and tools used during work activities shall be decontaminated in the designated decontamination area.

8.3 COMMUNICATIONS

A field representative should contact the project manager or office at least once a day while in the field. The closest telephone is located: field phone with on-Site Geomatrix personnel

9.0 DECONTAMINATION

9.1 PERSONNEL DECONTAMINATION PROCEDURES

Remove disposable gloves and clothing and place in plastic bags. Wash hands and face before eating, drinking, or smoking and at the end of the work day.

9.2 DECONTAMINATION PROCEDURES FOR EQUIPMENT/SAMPLING GEAR

Alconox and water decon station and potable water rinse station.

9.3 STORAGE OF INVESTIGATION-DERIVED MATERIALS

Investigation-derived materials (PPE/expendables, decon waste, soil cuttings, purged groundwater, etc.) will be handled and stored as follows:

Place all disposable PPE in containers as directed by TTC. TTC will arrange for proper disposal. Excess soil generated from confirmation sampling will be placed in roll offs with the excavated soil.

10.0 EMERGENCY RESPONSE

In the event of an accident or emergency condition, the procedures specified below shall be followed.

10.1 MEDICAL EMERGENCIES

In the event of a medical emergency, the following procedures should be used.

1. Remove injured or exposed person(s) from immediate danger if possible.

2. Evacuate other on-site personnel to a safe place in an upwind direction until it is safe for work to resume.

3. If serious injury or life-threatening condition exists, call

   911 - Paramedics, fire department, police
   Hospital emergency room

   Clearly describe location, injury and conditions to dispatcher/hospital. Designate a person to direct emergency equipment to the injured person(s).

4. Provide first aid if necessary. Remove contaminated clothing only if this can be done without endangering the injured person.

5. Call the project manager and/or project health and safety officer.

6. Immediately implement steps to prevent recurrence of the accident.

A map showing the nearest hospital location for Glen Head Site is attached to this plan.

Hospital	St. Francis Hospital
Address	255 Valentines Lane
	Glen Head, NY, 11545
Telephone	516-629-2000

Telephone number of nearest Poison Control Center:Cortland Memorial Hospital (607)756-3500.

Other emergency notifications and phone numbers:

_____

_____

_____

10.2 ACCIDENTAL RELEASE OF HAZARDOUS MATERIALS OR WASTES

1. Evacuate all on-site personnel to a safe place in an upwind direction until the PM or PHSO determines that it is safe for work to resume.

2. Immediately instruct a designated person to contact the PM or PHSO.

3. Contain spill, if it is possible and it can be done safely.

4. Initiate cleanup.

10.3 GENERAL EMERGENCIES

In the case of fire, flood, explosion, or other hazard, work shall be halted and the local police/ fire department shall be notified by calling 911. All on-site personnel will be immediately evacuated to a safe place.

11.0 APPROVALS

Project Manager	Date
Project Health & Safety Officer	Date
Site Safety Officer	Date

PROJECT HEALTH AND SAFETY FIELD MEETING FORM

Date: _____ Time: _____ Project No.: _____

Project Name: _____

Location: _____

Meeting Conducted by: _____

Topics Discussed:

Physical Hazards: _____

Chemical Hazards: _____

Personal Protection: _____

Decontamination: _____

Special Site Considerations: _____

_____

_____

Emergency Information: _____

Hospital Location: _____

Attendees

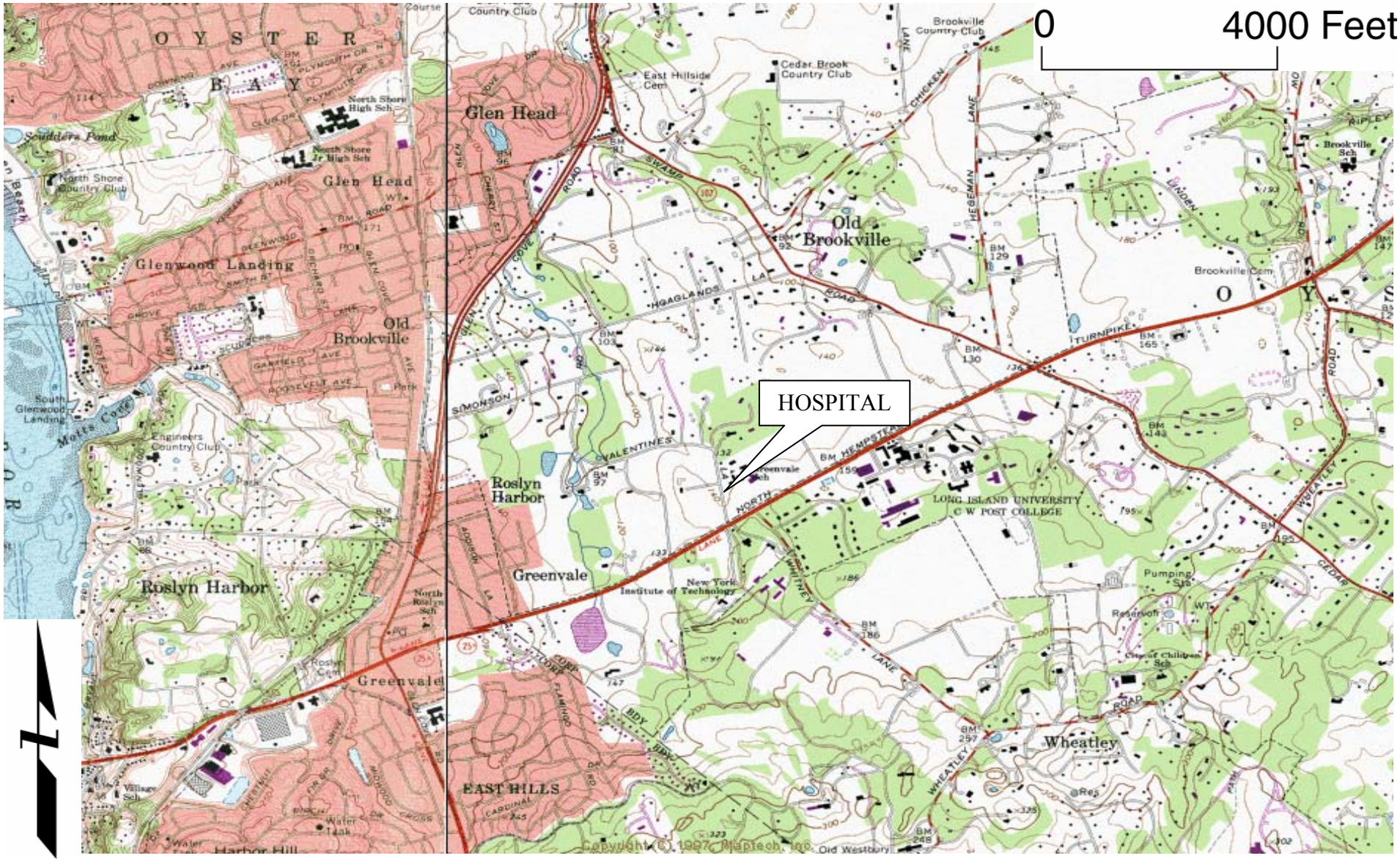
Name/Company (printed)	Signature

Meeting Conducted by: _____

Signature

Project\6238\h&s\Hospital Site Location Map

Non-GDS



GEOMATRIX

ST. FRANCIS HOSPITAL
Glen Head, New York

Project No.
6238

Figure
1

APPENDIX B

Community Air Monitoring Plan

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APPENDIX B
COMMUNITY AIR MONITORING PLAN
Remedial Design and Remedial Action Work Plan
TransTechnology Corporation Glen Head Site
Glen Head, New York

1.0 INTRODUCTION

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when ground intrusive activities are in progress at the TransTechnology Corporation (TCC) Glen Head, New York Site (Site). The 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.

2.0 PURPOSE

This CAMP is a companion document to the Health and Safety Plan (HASP). The HASP will be directed primarily toward protection of workers within the exclusion zone. The CAMP provides protection for the downwind community.

The purpose of this CAMP is to provide real-time monitoring for airborne volatile organic compounds (VOCs) and particulates at the downwind perimeter of the work area during investigation and remediation activities to be conducted at the Site. In addition, the CAMP establishes response and action levels for airborne emissions that may trigger emission control actions.

3.0 SCOPE

The chemicals of potential concern at the Site are predominantly VOCs (trichloroethene, 1,1,1-trichloroethane, methylene chloride, 1,4-dichlorobenzene, 1,2-dichlorobenzene, xylene and toluene), and to a lesser degree, metals and polycyclicaromatic hydrocarbon (PAH) compounds. VOCs will be monitored using a photoionization detector with an appropriate electrodeless ultraviolet discharge lamp. PAHs are non-volatile and any airborne emissions would be associated with particulates. Particulates will be monitored using a Particulate Air Monitor equipped with a micro-processor to measure and record real-time recordings of airborne particulate concentration in milligrams per cubic meter (mg/m^3).

During ground intrusive activities, air monitoring will be conducted continuously at the perimeter of the work area. Ground intrusive activities include all soil/sediment excavation and handling activities. Air monitoring will not be required during confirmatory or waste characterization sampling activities. Specific monitoring requirements are described below.

4.0 AIR QUALITY MONITORING

Air quality monitoring will be performed for organic vapors and airborne particulates as outlined below.

4.1 VOC MONITORING, RESPONSE LEVELS AND ACTIONS

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. A wind sock will determine the upwind and downwind locations for air monitoring activities. Monitoring instrumentation will be as described above. The monitoring instruments will be calibrated at least daily. The equipment should 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 are or exclusion zone exceeds 5 parts per million (ppm) above background for 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level 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 of exclusion zone persists at levels in excess of 5 ppm over background but less than 25 ppm, work activities will 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 will be shutdown.

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

4.2 PARTICULATE MONITORING, RESPONSE LEVELS, AND ACTIONS

Particulate concentrations will be monitored continuously during ground intrusive activities at the downwind perimeter of the exclusion zone. 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 will 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 will be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 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 will 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 (NYSDEC and NYSDOH) and NCDH personnel to review. Particulate monitoring will not be necessary during sampling activities.