FOCUSED REMEDIAL INVESTIGATION REPORT

PRECISION CONCEPTS 26 PRECISION DRIVE SHIRLEY, NEW YORK 11967

NYS DEC IHWDS I.D. No. 1-52-158

Prepared For:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION 50 WOLF ROAD ALBANY, NEW YORK 12233-7010

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Prepared by:

Kempey Engineering 4 Brunswick Drive East Northport, New York 11731 516-368-3324

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General Consolidated Industries, Inc. 1092 Motor Parkway Hauppauge, New York 11788 516-851-1600

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1.0 <u>INTRODUCTION</u>

1.1 Overview

A Focused Remedial Investigation was conducted at the property located at 26 Precision Drive, Shirley, New York, also identified on the tax map as Section 584, Block 1, Lot 4.034, hereafter referred to as the "Site". The investigative activities were conducted by General Consolidated Industries, Inc. (GCI), and Kempey Engineering.

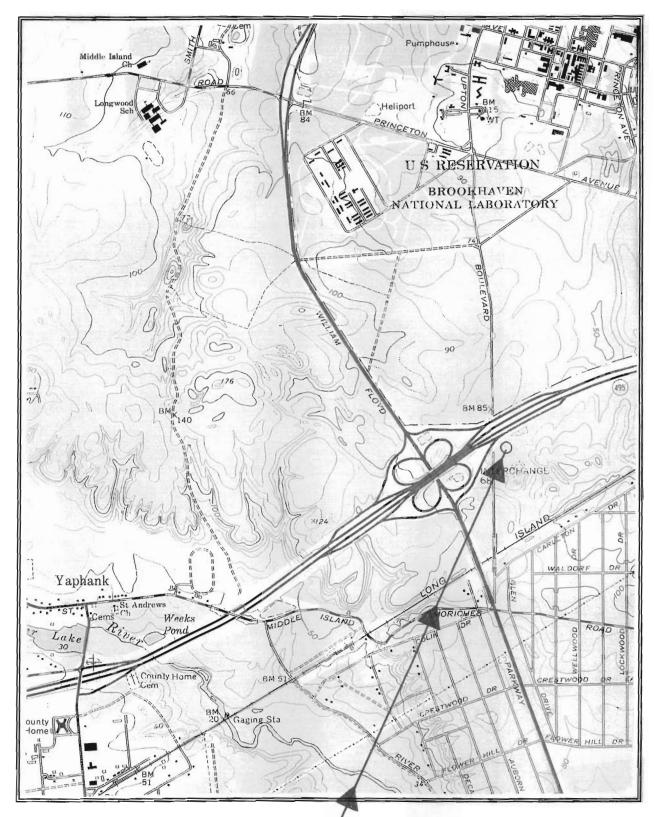
The Site investigation activities were initiated in order to satisfy the conditions of Order on Consent No. W1-0803-98-01, which was signed by Precision Concepts on February 10, 1999.

The work at the site was performed in accordance with the provisions of the <u>Focused Remedial Investigation Work Plan</u>, dated September 1998, which was prepared by GCI and Kempey Engineering. The location of the subject Site is depicted on a U.S.G.S. 7.5 Minute Quadrangle Topographic Map. Please refer to Figure 1 - Site Location Map.

The purpose of the Focused Remedial Investigation is to determine potential on-site sources of contamination, as well as the extent of any soil contamination present at the site. The investigative field activities were conducted at the site on June 1-3, 7 & 10, 1999. The field work was conducted under the direction of Mr. Matthew Boeckel, Senior Hydrogeologist for GCI, as well as Mr. Eugene Kempey, President of Kempey Engineering. The investigative tasks were observed by Mr. Michael D. MacCabe, Environmental Engineer I, of the New York State Department of Environmental Conservation (NYSDEC).

1.2 Work Plan Approach

The investigative activities which were conducted at the site were performed in accordance with the provisions of the <u>Focused Remedial Investigation Work Plan</u>, dated September 1998, which was prepared by GCI and Kempey Engineering. However, it should be noted that due to the site conditions encountered, slight modifications had to be made to the Work Plan. For further details regarding the changes in the original scope of work please refer to Section 4.0 - Focused Remedial Investigation. The field activities were conducted in order to characterize the nature of the on-site subsurface soils, as well as to assess the sediment present in several on-site subsurface structures which were previously identified as potential sources of contamination. The subsurface features consist of storm water drainage pools, wastewater leaching pools and the on-site sanitary system. The locations of the on-site features are depicted on Figure 2.0 - Site Plan.



U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP

26 Precision Drive Shirley, New York

Scale: 1,24000 Map Name: Bellport, NY

2.0 SITE BACKGROUND AND SETTING

2.1 Current Conditions

The subject site is located at 26 Precision Drive, which is approximately 1,343 feet east of William Floyd Parkway, Town of Brookhaven, Suffolk County, Long Island, New York. The subject property is located in a moderately developed commercial neighborhood. The site is bordered on the north by the Long Island Expressway, to the south and west of the site are commercial buildings and to the east is vacant undeveloped land. Brookhaven National Laboratory (BNL), which has been documented as a source of groundwater contamination, is located less than one-eighth (1/8) of a mile to the north (upgradient) of the subject property.

The subject site is an irregular shaped parcel, with approximately 1,355 feet of frontage along the north side of Precision Drive. The property is approximately 900 feet deep. The total area of the Site measures approximately 636,000 square feet or 15.9 acres. The building itself occupies approximately 6% of the subject site. The majority of the site is undeveloped and is covered with natural vegetation, the remainder of the property is developed as paved parking areas and drive ways for the facility.

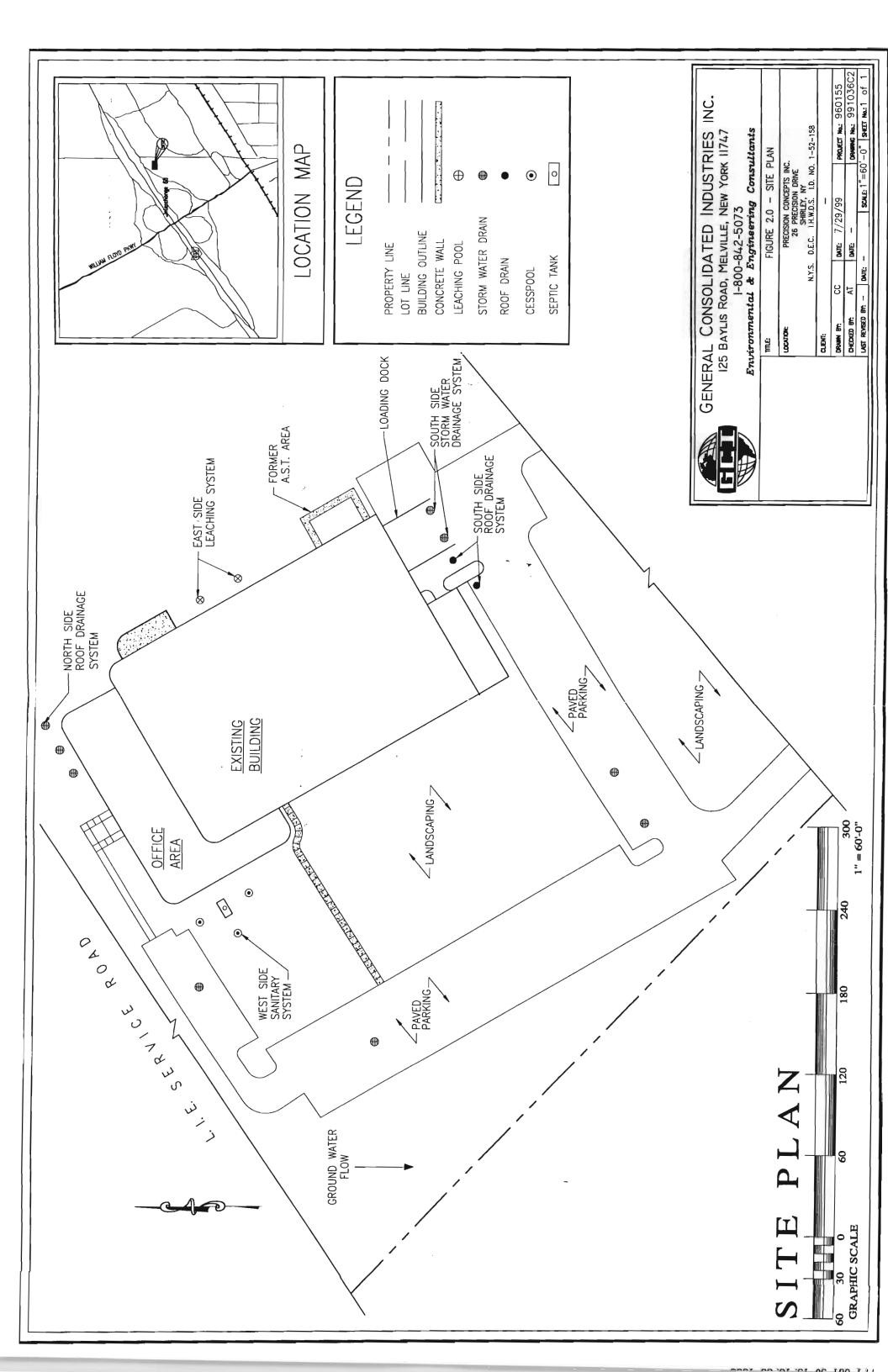
The Town of Brookhaven Building Department records indicated that the subject building was erected circa 1985. The subject building is constructed of concrete block with brick veneer. The building rests on a poured concrete slab foundation. Windows are comprised primarily of bronze plate glass in aluminum frames. The building space consists of office areas along the north end, reception/waiting area, conference room, lunch room, storage rooms, a research and development lab, office areas, bathrooms (office and warehouse), loading area and three warehouse/storage areas along the south end. The office section and primary entrance to the building is accessible from the north and west sides. Four (4) overhead bay doors access the warehouse/storage areas from the south side. All office areas are finished with carpeted floors, sheetrock walls and suspended acoustic ceilings. All manufacturing/storage areas remain unfinished with poured concrete floors, concrete block walls and steel corrugated ceilings/roof deck. The heat for the building is provided to the warehouse areas of the building via gas and electric fired, ceiling mounted forced hot air systems. All other areas including offices and research and development areas are heated via a gas fired, WEIL McLAIN boiler/circulating hot water baseboard system. The primary roof of the building was observed to be a flat/terraced type.

The site utilizes an on-site sanitary system, which is located on the west side of the subject building. The septic system, consists of a primary septic tank and three overflow pools. There are seven (7) storm water collection drywells located throughout the paved parking areas of the subject site. There are two (2) leaching pools located on the east side of the subject building. It was reported that the eastern leaching pools formerly received discharge of non-contact cooling water from the interior operations conducted by Precision Concepts. There are three (3) buried roof drainage drywells located on the north side of the subject building, as well as two (2) roof drainage drywells on the south side of the subject building. Please refer to Figure 2 - Site Plan for the locations of the site features. In addition, photographs of the subject property have been included as Appendix A with this report.

There are currently no storage tanks utilized at the subject site. There were records that the previous operations conducted by Precision Concepts entailed the use of storage tanks. The SCDHS records indicated that two (2) storage tanks and one (1) drum storage area were removed from the site in 1991. There are no floor drains located within the subject building.

2.2 Current Site Operations

The site is currently occupied by Luitpold Pharmaceutical, which is a distributor of pharmaceutical products. The site is utilized for warehouse and office purposes. There is only minor use of chemicals at the site which is well documented and inventoried. The site routinely has one (1) - 55 gallon drum which is utilized for storing chemical wastes. The drum is used to store waste corrosive liquid, No. D002, which consists of hydrochloric and sulfuric acids. The current operations conducted at the facility do not pose an apparent environmental threat to the public health or the subject property. In addition, there is no record of reported spills and/or discharges at the site which were the result of the operations conducted by the current tenant at the Site.



2.3 Site History

According to the Town of Brookhaven Building Department records the site is zoned for commercial / industrial uses. The Town of Brookhaven Building Department records indicated that the site was originally developed circa 1985. The site was first occupied by Precision Concepts which operated at the site from 1985 until 1993. Precision Concepts was a manufacturer of metal machine parts for use in the electronics industry.

The Site was vacant undeveloped land prior the construction of the current subject building in 1985. In May 1988, the Suffolk County Department of Health Services (SCDHS) sampled a leaching pool located on the east side of the subject building. The analytical results indicated that 1,1,1-trichloroethane (TCA) was present in the sample at a concentration of 1,200 parts per billion (ppb). No remedial action was undertaken by the SCDHS at this time. In addition, the SCDHS re-sampled the leaching pool in May 1990 and found no organic contamination.

Brookhaven National Laboratory (BNL) is a known source of groundwater contamination and is located less than one-eighth (1/8) of a mile upgradient (north) of the Site. BNL is currently listed on the United States Environmental Protection Agency (US EPA) National Priority List (NPL) and the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). The BNL site is a 5,265 acre, federally owned research facility operated by the Department of Energy, consisting of an active lab and waste disposal facility, with inactive and active landfills, "chemical holes", a sewage treatment plant and a former ash fill. At the hazardous waste management facility (HWMF), spills of VOCs and other compounds have contaminated the groundwater. In 1990, BNL discovered that traces of 1,1,1-trichloroethane (TCA) and dichloroethane (DCA) were detected in a groundwater monitoring well located along the southern boundary of the site. The most recent data regarding BNL indicates that there are seven (7) volatile organic compound (VOC) contamination plumes emanating from the site.

Based upon the presence of the contamination detected in the southern BNL groundwater monitoring well, the SCDHS performed a sampling survey of approximately ninety (90) homes located south of the expressway and south of the subject site where private drinking water wells were sampled for trace organics. Of the ninety (90) private wells tested, five (5) wells were found to be contaminated with TCA and DCA. From May to October of 1990, The SCDHS Bureau of Groundwater Resources installed twenty (20) groundwater monitoring wells in order to determine groundwater flow and the origin of the contamination. The testing of wells located along the northern side of the Long Island Expressway (L.I.E) south service road (adjacent/north of the subject site) indicated low levels of

contamination (<15 ppb) at 30 to 110 feet below the water table. Testing of wells located along Precision Drive indicated levels of TCA contamination (3-9300 ppb) at 10 to 40 feet below the water table. The SCDHS estimated through additional monitoring wells that there is a plume of contamination approximately 300 feet wide by 3100 feet long. The SCDHS nominated the subject Site to be listed as a NYS DEC Inactive Hazardous Waste Disposal Site (IHWDS). Copies of the previous environmental investigation reports were not provided as they were already submitted with the Focused Remedial Investigation Work Plan.

3.0 ENVIRONMENTAL SETTING

3.1 <u>Hydrogeologic Setting</u>

The subject site is located in the Atlantic Coastal Plain physiographic province which is characterized by low hills of unconsolidated sands, gravel and silt. According to Franke (1972), regionally, the subsurface deposits consist of the Upper Glacial deposits that are characterized by southward sloping deposits of sand, gravel and silt. The Upper Glacial deposits have a maximum thickness of 600 feet. They are underlain by the Magothy, Raritan and Lloyd Formations. The Gardiners clay and the Jameco gravel separate the Upper Glacial deposits and the Magothy Formation along the south west portion of Long Island.

The subject site is in the Upper Glacial aquifer. The Upper Glacial consists of Pleistocene moraine and outwash deposits. The water table is located primarily in the glacial aquifer which underlies a majority of Long Island. In general, the upper glacial is thickest near the north shore and eastern Suffolk County. Hydraulic conductivity is greatest along the southern part of the island, where the outwash deposits consist mainly of well draining coarse sand and gravel.

According to a soil survey of Suffolk County conducted by the United States Department of Agriculture, the lithology at the subject site has been classified as Riverhead Sandy-Loam. The Riverhead series typically consists of well-drained, moderately coarse textured soils. The Riverhead series is very permeable and allows for rapid groundwater flow.

Fresh groundwater originates in the form of precipitation, which on Long Island, averages approximately 44 inches per year. This precipitation will infiltrate into the subsurface and act as the sole recharge mechanism for replenishing water in the upper glacial aquifer system. Under the present conditions of infiltration, groundwater is recharging at a rate of approximately 350 billion gallons of water per year. The Upper Glacial has been designated a sole source aquifer by the US EPA, and as such is protected by US EPA mandated remediation legislation.

According to groundwater level measurements obtained during the field investigation activities, it was determined that groundwater is approximately thirty-seven (37) feet below ground surface at the subject site. Groundwater flows in a southerly direction in the vicinity of the Site. The groundwater in the vicinity of the subject site are identified as GA. GA waters are classified as "fresh groundwater". The best usage of Class GA waters is as a source of potable water supply, as defined in Section 701.15 of the New York State Department of Environmental Conservation (NYSDEC) Water Quality Regulations - Surface Water and Groundwater Classifications and Standards.

3.2 Surface Water and Drainage

The site is nearly level throughout. The storm water runoff at the site either directly infiltrates into the subsurface soil or is directed to a series of on-site storm water collection drywells. There is no municipal sewer service available in the vicinity of the subject property.

There are no ponds, lakes, streams or other water bodies on the subject property or in the vicinity. The subject site is located in the middle of Long Island, and as such there are no major bodies of water in a close proximity. There are no NYSDEC wetlands or other protected lands located at the subject site or in the immediate vicinity.

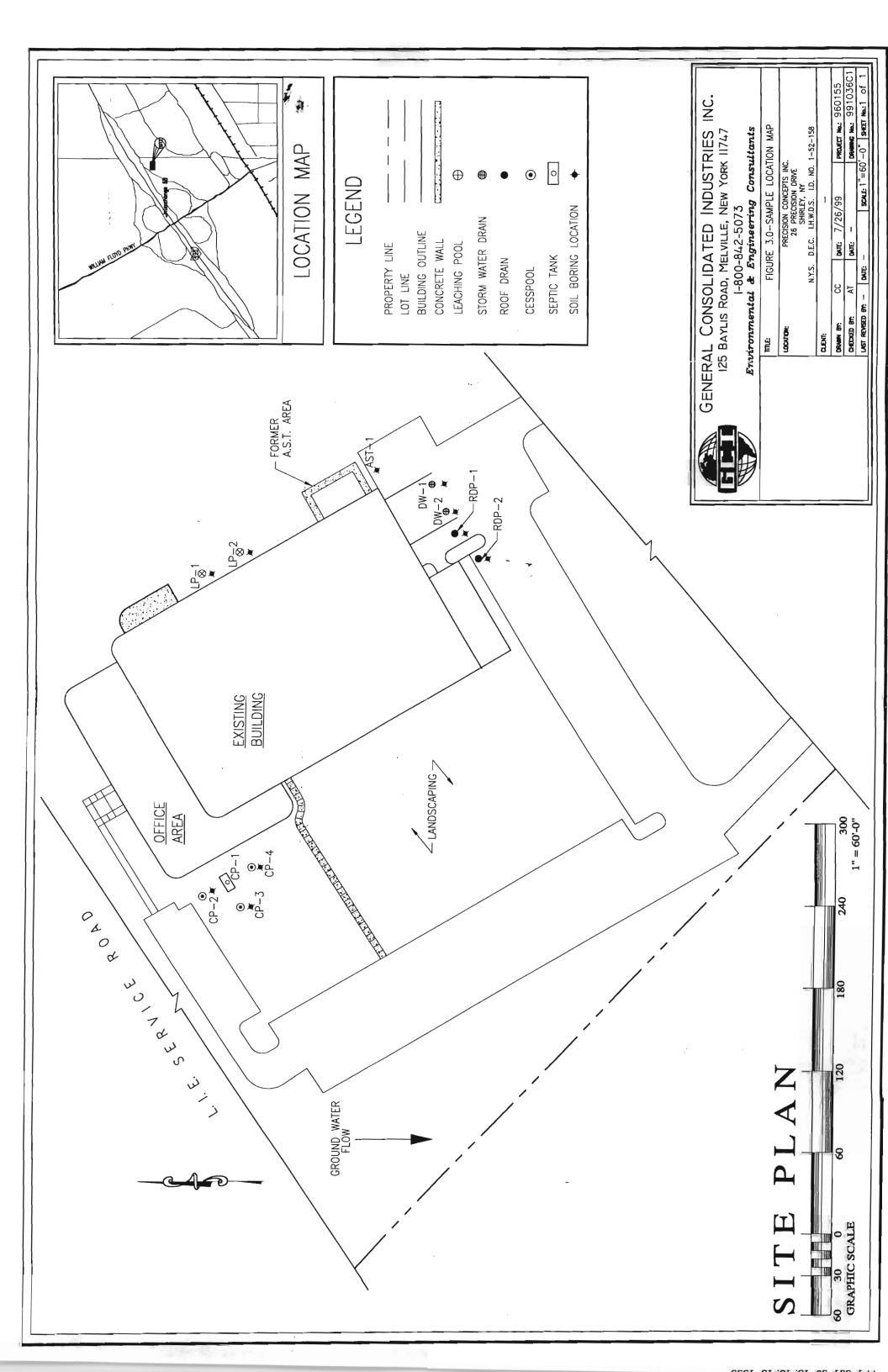
4.0 REMEDIAL INVESTIGATION

The Focused Remedial Investigation field activities were conducted at the site on June 1-3, 7 & 10, 1999. The field work was conducted under the direction of Mr. Matthew Boeckel, Senior Hydrogeologist for GCI, as well as Mr. Eugene Kempey, President of Kempey Engineering. A majority of the investigative tasks were observed by Mr. Michael D. MacCabe, Environmental Engineer I, of the NYSDEC.

Please note that due to the site conditions encountered, slight modifications had to be made to the scope of work as proposed in the Focused Remedial Investigation Work Plan. It was originally intended that sediment samples would be collected from the bottom invert level of suspect structures, as well as to obtain representative subsurface soil samples from directly below the structures. The method of sampling employed at the site consisted of a GeoProbe hydraulically powered drill rig. During the site investigation activities attempts were made to drill directly through the manhole opening of several subsurface features in order to obtain representative samples from directly below the structure. However, due to the fact that the structures are much larger than the sampling rods, there was no support available for the initial drilling rods. As such, the drilling rods were bending severely and causing an unsafe condition. There was a concern that the drilling rods would break and cause injury to someone working on the project. Therefore, as per Mr. MacCabe's approval the soil borings were completed directly outside of the leaching rings of each of the subsurface structures.

In addition, please note that the original laboratory which was to be utilized for the Focused Remedial Investigation was ANAlab, Inc. However, at the time the field work was being conducted the laboratory was in the process of moving it's facility and all operations to a new location. Therefore, a different laboratory had to be utilized to perform the sample analysis. The laboratory chosen for the FRI was Chemtech Consulting Group. As required by the FRI Work Plan, Chemtech Consulting Group is a NYS DOH Environmental Laboratory Approval Program (ELAP) and US EPA Contract Laboratory Protocol (CLP) certified laboratory, which is located in Englewood, New Jersey. The ELAP CLP certification number for the laboratory is 10624.

There were no further revisions which had to be made regarding the scope of work to be conducted. The following sections provide a summary of the field data collection procedures, soil screening results, visual observations, and quality assurance and quality control (QA/QC) measures. The sampling locations are depicted on Figure 3.0 - Sample Location Map.



4.1 Photo-ionization Detector (PID) Screening Activities

The essence of the Focused Remedial Investigation was to sample, characterize and perform analysis on soil samples collected throughout the site. The primary contaminants of concern at the site are volatile organic compounds (VOCs), specifically 1,1,1-trichloroethane (TCA), 1,1-dicholoroethene (DCE) and 1,1-dichloroethane (DCA). Therefore, it was determined that the collected soil samples would be field screened with a photo-ionization detector (PID), in an attempt to identify possible areas of on-site soil contamination.

The field instrumentation chosen for the investigation was an HNU Model DL-101 PID. All of the collected soil samples were field screened in accordance with the standard operating procedure (SOP) as outlined in Section 6.1 of the Focused Remedial Investigation Work Plan. The following activities were conducted as part of the SOP. The PID was calibrated prior to each day of use with 100 parts per million (ppm) isobutylene gas. A representative portion was retained from each of the soil samples collected. The collected soil sample was then stored in an air-tight medium. The sample was agitated in order to allow for volatilization of any VOCs present. The PID probe node was then inserted into the headspace of the air-tight medium. The PID probe node remained in the headspace until a stable reading was achieved. The PID results were recorded and utilized for determining which samples would be submitted for laboratory analysis. The PID screening results did not reveal the presence of elevated levels of VOCs in any of the soil samples which were collected. The PID screening results for each of the collected samples are provided in Appendix B-Boring Logs.

4.2 Background Soil Sampling For Metals

A total of three (3) soil borings, hereafter referred to as B-1 through B-3, were installed in the undeveloped areas of the Site and the surrounding neighborhood. The soil borings were installed for the purpose of obtaining representative background soil quality data regarding metals. The soil borings were installed using a stainless steel hand auger. The hand auger was thoroughly decontaminated prior to the installation of each boring. A total of two (2) soil samples were collected from each of the borings. Surficial soil samples were collected at grade to a depth of one (1) foot below land surface (bls) in each of the borings. Additionally, soil samples were collected at a depth of four (4) to five (5) feet bls in each of the borings. A total of six (6) soil samples were collected for laboratory analysis. Due to the fact that the samples were to be analyzed for the presence of metals only, it was determined that the samples would not be field screened with the PID.

The collected soil samples were immediately transferred into laboratory approved glassware. Each sample container was labeled with the Site location, sample location, date and time of sampling, and the analysis to be performed. The sample containers were then placed in a laboratory supplied cooler and stored on ice. The samples were then delivered to the contract laboratory, Chemtech Consulting Group, within forty-eight (48) hours of being collected. The soil samples were submitted for analysis of Target Analyte List (TAL) Metals using SW-846 Method 6010. The analytical results for these samples were utilized to derive background concentrations of metals in the soil at the site and the surrounding neighborhood. The locations of the soil borings are depicted on Figure 4.0 - Background Data Sampling Locations.

4.3 Former Aboveground Storage Tank (AST) Area

The operations conducted at the Site during the time it was occupied by Precision Concepts entailed the generation of waste rinse-water. The waste rinse-water was stored in one (1) - 6,000 gallon aboveground storage tank (AST). The AST was located in a concrete containment area, which is located at the exterior southeast corner of the building. The AST and containment area were constructed in accordance with the requirements of Article 12, section 760-1211 and 1214 of the Suffolk County Sanitary Code. In addition, the containment area is covered by a metal roof so as to further protect the storage tanks from the elements. According to records maintained buy the Suffolk County Department of Health Services (SCDHS), the 6,000 gallon AST was removed from the site in 1991. Prior to the removal of the AST, a sample of the waste rinse-water was obtained for laboratory analysis. The laboratory analysis revealed that the rinse-water was acidic and that there was a significant amount of chromium present in the sample, although there were no other contaminants reported. In addition, there was one (1) - 500 gallon AST located in the containment area. The 500 gallon AST was utilized in de-greasing operations at the site. It was reported that the 500 gallon AST was utilized to store waste 1,1,1-trichloroethylene. According to documentation obtained from the SCDHS, the 500 gallon AST was removed from the site in 1991.

In order to assess the quality of the subsurface soils in the vicinity of the two (2) former ASTs and concrete containment area, one (1) soil boring was installed immediately down-gradient (south) of the containment area. The soil boring, hereafter referred to as AST-1, was completed approximately fifteen (15) feet south of the concrete containment area. Please note that due to several obstructions at the site, the soil boring could not be completed any closer to the containment area. Soil boring AST-1 was installed using a GeoProbe hydraulically powered drill rig.

A surficial soil sample was collected from grade to one (1) foot bls in this area. Additional soil samples were collected in two (2) foot intervals at depths of five (5) feet bls, fifteen (15) feet bls, twenty-five (25) feet bls, and thirty-five (35) feet bls. Groundwater at the site was encountered at thirty-seven (37) feet below grade throughout the subject property. The collected soil samples were noted to consist of a medium to coarse grain sand, with pebbles. There was no apparent visual evidence of suspected contamination observed in any of the samples. The PID field screening results varied from 17.1 ppm in the sample obtained from twenty-five (25) to twenty-seven (27) feet bls to 24.2 ppm in the sample obtained from five (5) to seven (7) feet bls. Although, please note that the weather conditions were extremely humid during the site investigation activities.

Based upon the field data collected and a discussion with Mr. MacCabe, it was decided that the surficial soil sample, as well as the sample from thirty-five (35) to thirty-seven (37) feet bls would be submitted for laboratory analysis. The soil samples obtained from boring AST-1 were immediately transferred into laboratory approved glassware. Each sample container was labeled with the Site location, sample location, date and time of sampling, and the analysis to be performed. The sample containers were then placed in a laboratory supplied cooler and stored on ice. The samples were then delivered to the contract laboratory, Chemtech Consulting Group, within forty-eight (48) hours of being collected. The soil samples were submitted for analysis of Target Analyte List (TAL) Metals using SW-846 Method 6010, as well as for Target Compound List (TCL) Volatiles using EPA Method 8260. The analytical results from the samples will be utilized to determine whether or not there was a discharge of hazardous substances into the subsurface from the former AST containment area.

4.4 Storm Water Drainage System

There are two (2) storm water drains located in the rear (south) loading dock area, hereafter referred to as DW-1 and DW-2. The drains are utilized for storm water collection only, they are not connected to any interior piping. The storm drains are accessible at grade via steel open-grate manhole covers. An inspection of the storm drains revealed that they are constructed of precast concrete dome tops, with concrete leaching rings which are ten (10) feet in diameter and natural earth bottoms. The depths of storm drains DW-1 and DW-2 were determined to be fifteen (15) feet below grade.

Representative samples were collected from the bottom invert levels of the two (2) storm drains. In addition, one (1) soil boring was completed immediately down-gradient (south) of the storm water drains. Soil samples were collected from each of the borings at depths of twenty-five (25) feet bls, thirty (30) feet bls, and thirty-six (36) feet bls. Groundwater was encountered at a depth of thirty-seven (37) feet below grade throughout the Site. There was no apparent visual evidence of suspected contamination noted in any of the samples, with the exception of both of the invert level samples which were noted to be slightly discolored. The PID field screening results for soil boring DW-1varied from 11.6 ppm in the sample obtained from thirty-five (35) to thirty-seven (37) feet bls to 21.2 ppm in the sample obtained from thirty (30) to thirty-two (32) feet bls. The PID screening results for soil boring DW-2 varied from 0.6 ppm in the sample obtained from twenty-five (25) to twenty-seven (27) feet bls to 1.0 ppm in the sample obtained from thirty-six (36) to thirty-eight (38) feet bls. Although, please note that the weather conditions were extremely humid during the site investigation activities.

Based upon the field data collected and a discussion with Mr. MacCabe, it was decided that the two (2) invert level samples, as well as the deepest sample from each of the borings (36 to 38 feet bls) would be submitted for laboratory analysis. The soil samples obtained from SD-1 and SD-2 were immediately transferred into laboratory approved glassware. Each sample container was labeled with the Site location, sample location, date and time of sampling, and the analysis to be performed. The sample containers were then placed in a laboratory supplied cooler and stored on ice. The samples were then delivered to the contract laboratory, Chemtech Consulting Group, within forty-eight (48) hours of being collected. The soil samples were submitted for analysis of Target Analyte List (TAL) Metals using SW-846 Method 6010, as well as for Target Compound List (TCL) Volatiles using EPA Method 8260. The analytical results from the samples will be utilized to determine whether or not there was a discharge of hazardous substances into the subsurface from storm drains DW-1 and DW-2.

4.4 <u>East Side Leaching Pool System</u>

There are two (2) leaching pools located along the east side of the subject building, hereafter referred to as LP-1 and LP-2. The leaching pools were utilized to collect non-contact cooling water which was produced during the operations formerly conducted by Precision Concepts. The leaching pools are not currently receiving discharges from the subject building. The leaching pools are buried approximately five (5) feet below grade and there were no manholes to provide access. Although, there is a four (4) inch diameter PVC pipe which extends from grade to the top of leaching pool LP-1, to allow for access to the interior of the pool. Based upon a review of the original building plans for the Site, it was determined that the two (2) leaching pools are constructed of precast concrete dome tops, with concrete leaching rings which are ten (10) feet in diameter, and natural earth bottoms. The depths of leaching pools LP-1 and LP-2 was determined to be approximately eighteen (18) feet below grade.

Representative samples were collected from the bottom invert levels of the two (2) leaching pools. In addition, one (1) soil boring was completed immediately down-gradient (south) of the leaching pools. Soil samples were collected from each of the borings at depths of twenty-five (25) feet bls, thirty (30) feet bls, and thirty-six (36) feet bls. Groundwater was encountered at a depth of thirty-seven (37) feet below grade throughout the Site. There was no apparent visual evidence of suspected contamination noted in any of the samples collected from the east side leaching pool system. The PID field screening results for soil boring LP-1 varied from 1.1 ppm in the sample obtained from thirty-six (36) to thirty-eight (38) feet bls to 2.2 ppm in the sample obtained from thirty (30) to thirty-two (32) feet bls. The PID field screening results for soil boring LP-2 varied from 1.2 ppm in the sample obtained from thirty (30) to thirty-two (32) feet bls to 1.9 ppm in the sample obtained from twenty-five (25) to twenty-seven (27) feet bls. Although, please note that the weather conditions were extremely humid during the site investigation activities.

Based upon the field data collected and a discussion with Mr. MacCabe, it was decided that the two (2) invert level samples, as well as the deepest sample from each of the borings (36 to 38 feet bls) would be submitted for laboratory analysis. The soil samples obtained from LP-1 and LP-2 were immediately transferred into laboratory approved glassware. Each sample container was labeled with the Site location, sample location, date and time of sampling, and the analysis to be performed. The sample containers were then placed in a laboratory supplied cooler and stored on ice. The samples were then delivered to the contract laboratory, Chemtech Consulting Group, within forty-eight (48) hours of being collected. The soil samples were submitted for analysis of Target Analyte List (TAL) Metals using SW-846 Method 6010, as well as for Target Compound List (TCL)

Volatiles using EPA Method 8260. The analytical results from the samples will be utilized to determine whether or not there was a discharge of hazardous substances into the subsurface from LP-1 and LP-2.

4.5 West Side Sanitary System

The subject building utilizes one (1) on-site sanitary system. The sanitary system is located near the northwest corner of the subject building. The sanitary system for the subject building consists of a primary septic tank (CP-1) and three (3) overflow cesspools (CP-2 through CP-4), which are located to the north, west and south of CP-1. An inspection of CP-1 revealed that it is constructed of a precast solid concrete basin, which is completed at approximately ten (10) feet below grade. There are no leaching capabilities associated with the primary septic tank C-1. Please note that the three (3) overflow cesspools were not accessible at grade. Therefore, the tops of the three (3) overflow pools were exposed by hand excavation. The overflow cesspools are buried two (2) feet below grade at the site. The three (3) overflow leaching cesspools are constructed of precast concrete dome tops, with concrete leaching rings which are ten (10) feet in diameter, and natural earth bottoms. The depths of the overflow leaching cesspools was determined to be approximately eighteen (18) feet below grade. Please note that in June 1992, the SCDHS approved the pump-out and disposal of approximately 8,000 gallons of liquid from the on-site septic tank CP-1. There are no other records of remedial activities conducted with regard to the on-site sanitary system.

Based upon the fact that CP-1 was confirmed to be a solid structure with no leaching capabilities, it was decided that there would be no samples obtained. Representative samples were collected from the bottom invert levels of the three (3) overflow cesspools. In addition, one (1) soil boring was completed immediately down-gradient (south) of each of the overflow cesspools. Soil samples were collected from each of the borings at depths of twenty-five (25) feet bls, thirty (30) feet bls, and thirty-six (36) feet bls. Groundwater was encountered at a depth of thirty-seven (37) feet below grade throughout the Site. There was no apparent visual evidence of suspected contamination noted in any of the samples collected from the west side sanitary system, with the exception of the invert level sample obtained from CP-4 which was noted to be discolored. This discoloration is most likely related to the septic discharges which this cesspool constantly receives. The PID field screening results for soil boring CP-2 varied from 1.9 ppm in the sample obtained from the invert level to 2.8 ppm in the sample obtained from thirty (30) to thirty-two (32) feet bls. The PID field screening results for soil boring CP-3 varied from 2.2 ppm in the sample obtained from the invert level to 6.2 ppm in the sample obtained from twenty-five (25) to twenty-seven (27) feet bls. The PID field

screening results for soil boring CP-4 varied from 11.0 ppm in the sample obtained from thirty-six (36) to thirty-eight (38) feet bls to 24.2 ppm in the sample obtained from the invert level. Although, please note that the weather conditions were extremely humid during the site investigation activities.

Based upon the field data collected and a discussion with Mr. MacCabe, it was decided that the three (3) invert level samples, as well as the deepest sample from each of the borings (36 to 38 feet bls) would be submitted for laboratory analysis. The soil samples obtained from CP-2, CP-3 and CP-4 were immediately transferred into laboratory approved glassware. Each sample container was labeled with the Site location, sample location, date and time of sampling, and the analysis to be performed. The sample containers were then placed in a laboratory supplied cooler and stored on ice. The samples were then delivered to the contract laboratory, Chemtech Consulting Group, within forty-eight (48) hours of being collected. The soil samples were submitted for analysis of Target Analyte List (TAL) Metals using SW-846 Method 6010, as well as for Target Compound List (TCL) Volatiles using EPA Method 8260. The analytical results from the samples will be utilized to determine whether or not there was a discharge of hazardous substances into the subsurface from the on-site sanitary system.

4.6 South Side Roof Drainage System

The roof drainage system a the subject building consists of three (3) leaching pools on the north side of the subject building in order to collect the storm water from the north side of the roof. In addition, there are two (2) leaching pools, hereafter referred to as RDP-1 and RDP-2, located on the south side of the building for storm water collection from the south side of the roof area. The SCDHS noticed during a routine inspection of the subject building that there was a "Y" connection in the rear (south) central roof drainage line which appeared to have been open at one time. The two (2) roof drain leaching pools were located below grade. In 1997, the pools were uncovered and representative soil samples from the bottom invert levels were obtained for laboratory analysis of volatile organic compounds (VOCs) using EPA method 8260, as well as for heavy metals. The analytical results indicated that there were no elevated levels of either VOCs or metals present in either sample. Upon completion of the sampling, the access manways for RDP-1 and RDP-2 were raised to grade, so as to allow for future accessibility.

Representative samples were collected from the bottom invert levels of the two (2) roof drain pools. In addition, one (1) soil boring was completed immediately down-gradient (south) of roof drain pools RDP-1 and RDP-2. Soil samples were collected from each of the borings at depths of twenty-five (25) feet bls, thirty (30) feet bls, and thirty-six (36) feet bls. Groundwater was encountered at a depth of thirty-seven (37) feet below grade throughout the Site. There was no apparent visual evidence of suspected contamination noted in any of the samples collected from the south side roof drainage system. The PID field screening results for soil boring RDP-1 varied from 0.4 ppm in the sample obtained from the invert level to 0.6 ppm in the sample obtained from thirty-six (36) to thirty-eight (38) feet bls. The PID field screening results for soil boring RDP-2 varied from 0.4 ppm in the sample obtained from thirty (30) to thirty-two (32) feet bls to 1.2 ppm in the sample obtained from twenty-five (25) to twenty-seven (27) feet bls. Although, please note that the weather conditions were extremely humid during the site investigation activities.

Based upon the field data collected and a discussion with Mr. MacCabe, it was decided that the two (2) invert level samples, as well as the deepest sample from each of the borings (36 to 38 feet bls) would be submitted for laboratory analysis. The soil samples obtained from RDP-1 and RDP-2 were immediately transferred into laboratory approved glassware. Each sample container was labeled with the Site location, sample location, date and time of sampling, and the analysis to be performed. The sample containers were then placed in a laboratory supplied cooler and stored on ice. The samples were then delivered to the contract laboratory, Chemtech Consulting Group, within forty-eight (48) hours of being collected. The soil samples were submitted for analysis of Target Analyte

List (TAL) Metals using SW-846 Method 6010, as well as for Total Contract Laboratory (TCL) Volatiles using EPA Method 8260. The analytical results from the samples will be utilized to determine whether or not there was a discharge of hazardous substances into the subsurface from RDP-1 and RDP-2.

4.7 Quality Assurance / Quality Control Measures

Quality Assurance / Quality Control measures were utilized during the Focused Remedial Investigation field work to ensure that the resulting analytical data would accurately represent the subsurface conditions at the Site. A Quality Assurance Project Plan was developed prior to the implementation of the field work and is outlined in section 6.7 of the Focused Remedial Investigation Work plan.

All non-disposable downhole equipment (i.e., augers, hand augers, sampling sheaths, etc.) used during the drilling and sampling were decontaminated prior to use at each location to prevent cross contamination. The decontamination procedures were conducted as follows; equipment was scrubbed in a bath of potable water and low-phosphate detergent; then a potable water rinse; followed by a second bath and then finally the equipment was rinsed with potable water and allowed to air dry.

For each day of sampling, a chain of custody sheet was completed and submitted to the laboratory. The chain of custody sheet included the project name, the sampler's signature, the sampling locations, intervals, and analysis parameters requested. The samples were stored on ice in a cooler. The cooler was secured using a custody seal to ensure that no tampering would occur. The laboratory received all of the samples within forty-eight (48) hours of being collected.

A hand auger was utilized to retrieve the background samples for metals analysis. The hand auger was decontaminated prior to the collection of each of the soil borings. Due to the fact that it was only metals that were to be analyzed, it was determined that an equipment blank sample would not be necessary. The remaining samples collected at the site were obtained utilizing a GeoProbe drill rig. The GeoProbe collects representative samples in a disposable acetate liner, which is replaced prior to each sampling event. Based upon this fact, it was determined that equipment blanks would not be necessary for the samples obtained via the GeoProbe. It should be noted that this was a slight variance from the original scope of work, although this was approved by Mr. MacCabe during the field investigation.

5.0 ANALYTICAL RESULTS

The following section provides a summary of the analytical data obtained form the soil samples collected from the former AST area, the east side leaching pools, the south side roof drainage pools and the south side drywells. All of the collected soil samples were submitted for analysis of Target Analyte List (TAL) Metals using SW-846 Method 6010, as well as for Target Compound List (TCL) Volatiles using EPA Method 8260. The samples were submitted to Chemtech Consulting Group. Chemtech Consulting Group is a New York State Department of Health (NYS DOH) Environmental Laboratory Approval Program (ELAP) and US EPA Contract Laboratory Protocol (CLP) certified laboratory, which is located in Englewood, New Jersey. The ELAP CLP certification number for the laboratory is 10624. The analytical data for all of the samples were reported in a NYS DEC Analytical Services Protocol (ASP) Category B deliverables package. The analytical data packages are included with this report as Appendix C.

5.1 <u>Data Validation</u>

The analytical results were subject to review and data validation by Mr. Mike Veraldi, who is the Quality Assurance Officer (QAO) for the project. Mr. Veraldi reviewed all analytical data packages which were received as part of the Focused Remedial Investigation, and developed a Data Usability Summary Report (DUSR) as per the requirements of the NYSDEC <u>Guidance for the Development of Data Usability Summary Reports</u>.

Based upon a review of the data packages, Mr. Veraldi indicated that the data was valid and the analytical results could be accurately relied upon. Mr. Veraldi indicated that there were several samples where two (2) or three (3) tentatively identified compounds (TICs) were identified. These compounds are associated with laboratory sampling procedures and are not representative of contamination in the samples. The presence of the TICs in the samples does not impugn the validity of the data. There were also minor procedural deficiencies found in two (2) samples, however it is believed that these deficiencies did not contravene the quality of the data. The DUSR for each of the collected soil samples is included with this report as Appendix D.

5.2 **Applicable Regulatory Guidelines**

The analytical results were compared to the recommended soil Cleanup Objectives as listed in the NYSDEC <u>Division Technical and Administrative Guidance Memorandum HWR-94-4046:</u>

<u>Determination of Soil Cleanup Objectives and Cleanup Levels</u> (TAGM). In addition, the analytical results were compared to the Action Levels as listed in the Suffolk County Department of Health Services (SCDHS) <u>Article 12 - Standard Operating Procedure No. 9-95 - Pumpout and Soil Cleanup Criteria</u>.

Please note that there have been revisions made to TAGM, although the revised version has not yet been made available. It was reported by the NYSDEC Division of Hazardous Waste Remediation that the Cleanup Objective for cadmium has been changed from 1.0 ppm to 10.0 ppm. In addition, the Cleanup Objective for chromium was changed from 10.0 ppm to 50.0 ppm. There were no other revisions made to the TAGM Cleanup Objectives which would affect the data comparison and evaluation for the project.

5.3 Background Soil Quality

Please note that the NYSDEC TAGM lists a Cleanup Objective for each metal, or the TAGM indicates that a Cleanup Objective should be derived based upon site specific background concentrations. Therefore, the analytical results obtained from soil borings B-1 through B-3 were utilized to establish a baseline for the background metals quality of the subsurface soil at the Site and the surrounding neighborhood. The analytical results for the remainder of the samples obtained during the performance of the Focused Remedial Investigation were compared to the background metals quality data, as well as the recommended soil Cleanup Objectives listed in TAGM and the Action Levels listed by the SCDHS.

A summary of the analytical data obtained for the background metals quality is presented in Table 1. In addition, the NYSDEC TAGM recommended soil Cleanup Objectives and the SCDHS Action Levels are also listed for reference.

TABLE 1 BACKGROUND METALS QUALITY DATA

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETER	SURFICIAL BACKGROUND	SUBSURFACE BACKGROUND	SCDHS ACTION LEVELS	TAGM VALUES
Aluminum	1,360 - 6,820	1,750 - 3,400	NL	SB
Antimony	ND (0.56*)	ND (0.56*)	NL	SB
Arsenic	ND (0.69*)	ND - 1.3	25.0	7.5 / SB
Barium	4.3 - 20.8	4.0 - 9.9	NL	300 / SB
Beryllium	ND (0.11*)	ND (0.11*)	8.0	0.16 / SB
Cadmium	ND (0.11*)	ND (0.11*)	10.0	10 / SB
Calcium	252 - 522	276 - 400	NL	SB
Chromium	2.7 - 8.4	3.8 - 5.1	100	50 / SB
Cobalt	0.97 - 2.2	1.2 - 1.7	NL	30 / SB
Copper	3.9 - 8.8	5.0 - 6.4	500	25 / SB
Iron	1,630 - 8,020	3,390 - 3,760	NL	2,000 / SB
Lead	1.9 - 15.9	1.7 - 2.6	400	SB (4-64)
Magnesium	235 - 737	461 - 556	NL	SB
Manganese	30.5 - 132	51.9 - 75	NL	SB
Mercury	ND (0.11*)	ND (0.11*)	2.0	0.1
Nickel	0.92 - 3.0	1.1 - 1.9	1,000	13
Potassium	96.3 - 243	133 - 176	NL	SB
Selenium	ND (0.49*)	ND (0.44*)	NL	2 / SB
Silver	ND - 0.37	ND (0.11*)	100	SB
Sodium	101 - 141	110 - 111	NL	SB
Thallium	ND (0.78*)	ND (0.76*)	NL	SB
Vanadium	2.9 - 16.6	5.4 - 7.1	NL	150 / SB
Zinc	5.7 - 21.9	8.1 - 11.6	NL	20 / SB

- Notes: 1. All results are in parts per million (mg/Kg)
 - 2. * Highest analytical method detection limit noted in parenthesis.
 - 3. ND Compound was non-detectable above the analytical method detection limit.
 - 4. NL No Action Level listed by the SCDHS.

5.4 Former Aboveground Storage Tank (AST) Area

A total of two (2) soil samples were submitted for laboratory analysis from boring AST-1. A surficial soil sample obtained from grade to one (1) foot below grade, as well as a soil sample from thirty-five (35) to thirty-seven (37) feet below grade were submitted for analysis. The two (2) soil samples were analyzed for TAL Metals and TCL Volatiles.

The analytical results for the surficial soil sample obtained from AST-1 indicated that there were no volatile organic compounds (VOCs) detected above their respective laboratory analytical method detection limit (MDL). The analytical results also revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objective or SCDHS Action Level. In addition, the concentrations of metals which were detected in the sample did correlate to the background metals quality data.

The analytical results for the deep soil sample (35 to 37 feet below grade) revealed that there were no volatile organic compounds (VOCs) detected above their respective laboratory analytical MDL. The analytical results also revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objective. In addition, the concentrations of metals which were detected in the sample did correlate to the background metals quality data. The analytical results are summarized in Table 2 and Table 3.

Table 2 VOLATILE ORGANIC COMPOUNDS FORMER AST AREA

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	AST-1 Surficial	AST-2 35 - 37 ft.
Chloromethane	ND	ND
Vinyl Chloride	ND	ND
Bromomethane	ND	ND
Chloroethane	ND	ND
1,1-Dichloroethene	ND	ND
Acetone	ND	ND
Carbon Disulfide	ND	ND
Methylene Chloride	ND	ND
trans-1,2-Dichloroethene	ND	ND
1,1-Dichloroethane	ND_	ND
cis-1,2-Dichloroethene	ND	ND
Chloroform	ND	ND
1,1,1-Trichloroethane	ND_	ND
2-Butanone	ND	ND
Carbon Tetrachloride	ND	ND
Benzene	ND	NDND_
1,2-Dichloroethane	ND ND	ND ND
Trichloroethene	ND	ND
1,2-Dichloropropane	ND	ND
Bromodichloromethane	ND	ND
cis-1,3-Dichloropropane	ND	ND
Toluene	ND	ND
trans-1,3-Dichloropropane	ND	ND
1,1,2-Trichloroethane	ND	ND

Table 2 VOLATILE ORGANIC COMPOUNDS FORMER AST AREA

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	AST-1 Surficial	AST-2 35 - 37 ft.		
4-Methyl-2-Pentanone	ND	ND		
Tetrachloroethene	ND	ND		
Dibromochloromethane	ND	ND		
2-Hexanone	ND	ND_		
Chlorobenzene	ND	ND		
Ethylbenzene	ND	ND		
m & p - Xylenes	ND	ND		
o - Xylene	ND	ND		
Styrene	ND _	ND		
Bromoform	ND	ND		
1,1,2,2-Tetrachloroethane	ND _	ND		

Notes: All results are in ug/Kg (parts per billion - ppb).

ND = Non-detectable above analytical method detection limit (MDL).

TABLE 3

METALS ANALYSIS FORMER AST AREA

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL SURFICIAL PARAMETER BACKGROUND		SUBSURFACE BACKGROUND	TAGM VALUES	SCDHS ACTION LEVELS	AST-1 Surficial	AST-1 35-37 ft.
Aluminum 1,360 - 6,820		1,750 - 3,400	SB	NL	480	7,240
Antimony	ND (0.56*)	ND (0.56*)	SB	NL	ND	ND
Arsenic	ND (0.69*)	ND - 1.3	7.5 / SB	25.0	ND	1.5
Barium	4.3 - 20.8	4.0 - 9.9	300 / SB	NL	2.8	15.2
Beryllium	ND (0.11*)	ND (0.11*)	0.16 / SB	8.0	ND	ND
Cadmium	ND (0.11*)	ND (0.11*)	10 / SB	10.0	ND	ND
Calcium	252 - 522	276 - 400	SB	NL	223	326
Chromium	2.7 - 8.4	3.8 - 5.1	50 / SB	100	8.5	9.4
Cobalt	0.97 - 2.2	1.2 - 1.7	30 / SB	NL	0.36	3.1
Copper	3.9 - 8.8	5.0 - 6.4	25 / SB	500	5.4	10.9
Iron	1,630 - 8,020	3,390 - 3,760	2,000/SB	NL	1,640	7,410
Lead	1.9 - 15.9	1.7 - 2.6	SB (4-64)	400	1.6	5.4
Magnesium	235 - 737	461 - 556	SB	NL	159	1,030
Manganese	30.5 - 132	51.9 - 75	SB	NL	18.9	79.7
Mercury	ND (0.11*)	ND (0.11*)	0.1	2.0	ND	ND
Nickel	0.92 - 3.0	1.1 - 1.9	13	1,000	1.1	3.6
Potassium	96.3 - 243	133 - 176	SB	NL	79.4	309
Selenium	ND (0.49*)	ND (0.44*)	2 / SB	NL	ND	ND
Silver	ND - 0.37	ND (0.11*)	SB	100	ND	ND
Sodium	101 - 141	110 - 111	SB	NL	123	116
Thallium	ND (0.78*)	ND (0.76*)	SB	NL	ND	ND
Vanadium	2.9 - 16.6	5.4 - 7.1	150 / SB	NL	2.5	14.8
Zinc	5.7 - 21.9	8.1 - 11.6	20 / SB	NL	4.9	15.8

Notes: 1. All results are in parts per million (mg/Kg)

^{2. * -} Highest analytical method detection limit noted in parenthesis.

^{3.} ND - Compound was non-detectable above the analytical method detection limit (MDL).

5.5 Storm Water Drainage System

A total of two (2) soil samples were submitted for laboratory analysis from boring DW-1 as well as from boring DW-2. An invert level sample obtained from the bottom of each drywell, as well as a soil sample from thirty-six (36) to thirty-eight (38) feet below grade in the vicinity of each drywell were submitted for analysis. The four (4) soil samples were analyzed for TAL Metals and TCL Volatiles.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from DW-1 indicated that there were no VOCs detected above their respective laboratory analytical MDL, with the exception of toluene which was present at a concentration of 15 parts per billion (ppb) in the invert level sample. The detected concentration of toluene is very minor and does not represent a significant source of contamination. The analytical results for the invert level sample revealed that zinc was present at a concentration of 56.2 ppm, which is above it's respective TAGM Cleanup Objective of 20.0 ppm. The analytical results also revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objective or SCDHS Action Level in either sample. In addition, the concentrations of metals which were detected in both of the samples did correlate to the background metals quality data.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from DW-2 revealed that there were no VOCs detected above their respective laboratory analytical MDL. The analytical results for the invert level sample revealed that beryllium was present at 0.18 ppm, copper at 39.0 ppm and zinc at 64.8 ppm, all of which are above their respective TAGM Cleanup Objectives of 0.16 ppm, 25.0 ppm and 20.0 ppm. However, please note that the detected concentrations beryllium and copper are well below their respective SCDHS Action Levels of 8.0 ppm 500 ppm. The analytical results for the deep sample revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objectives. In addition, the concentrations of metals which were detected in the deep sample did correlate to the background metals quality data. The analytical results are summarized in Table 4 and Table 5.

Table 4

VOLATILE ORGANIC COMPOUNDS SOUTH SIDE STORM WATER DRAINAGE SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL	DW-1	DW-1	DW-2	DW-2
PARAMETERS	Invert	36-38 ft.	Invert	36 - 38 ft.
Chloromethane	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND_	ND
Bromomethane	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
Acetone	ND	ND	ND	ND_
Carbon Disulfide	ND	ND	ND	ND_
Methylene Chloride	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND _	ND_
1,1-Dichloroethane	ND_	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND_	ND_	ND
Chloroform	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND
Benzene	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND_	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND
cis-1,3-Dichloropropane	ND	ND	ND	ND
Toluene	ND	ND	ND	ND
trans-1,3-Dichloropropane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND_	ND	ND	ND

Table 4

VOLATILE ORGANIC COMPOUNDS SOUTH SIDE STORM WATER DRAINAGE SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	DW-1 Invert	DW-1 36-38 ft.	DW-2 Invert	DW-2 36 - 38 ft.
4-Methyl-2-Pentanone	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND _	ND
Dibromochloromethane	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Ethylbenzene	ND	ND	_ ND _	_ ND _
m & p - Xylenes	ND	ND	ND	ND
o - Xylene	ND_	ND	ND	ND
Styrene	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND

Notes: All results are in ug/Kg (parts per billion - ppb).

ND = Non-detectable above analytical method detection limit (MDL).

TABLE 5

METALS ANALYSIS

SOUTH SIDE STORM WATER DRAINAGE SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL, PARAMETER	SURFICIAL BACKGROUND	SUBSURFACE BACKGROUND	TAGM VALUES	SCDHS ACTION LEVELS	DW-1 Invert	DW-1 36-38 ft.	DW-2 Invert	DW-2 36-38 ft.
Aluminum	1,360 - 6,820	1,750 - 3,400	SB	NL	1,490	393	1,270	368
Antimony	ND (0.56*)	ND (0.56*)	SB	NL	ND	ND	ND	ND
Arsenic	ND (0.69*)	ND - 1.3	7.5 / SB	25.0	ND	ND	ND	ND
Barium	4.3 - 20.8	4.0 - 9.9	300 / SB	NL	9.3	2.4	8.9	3.7
Beryllium	ND (0.11*)	ND (0.11*)	0.16 / SB	8.0	ND	ND	0.18	0.11
Cadmium	ND (0.11*)	ND (0.11*)	10 / SB	10.0	ND	ND	0.39	0.11
Calcium	252 - 522	276 - 400	SB	NL	885	217	942	167
Chromium	2.7 - 8.4	3.8 - 5.1	50 / SB	100	6.1	3.0	9.9	4.2
Cobalt	0.97 - 2.2	1.2 - 1.7	30 / SB	NL	1.6	0.35	1.8	0.79
Copper	3.9 - 8.8	5.0 - 6.4	25 / SB	500	14.3	5.1	39	4.6
Iron	1,630 - 8,020	3,390 - 3,760	2,000/SB	NL	4,420	1,080	3,030	1,410
Lead	1.9 - 15.9	1.7 - 2.6	SB (4-64)	400	8.2	1.0	9.0	2.1
Magnesium	235 - 737	461 - 556	SB	NL	624	163	499	137
Manganese	30.5 - 132	51.9 - 75	SB	NL	38.1	15.6	18.5	20.5
Mercury	ND (0.11*)	ND (0.11*)	0.1	2.0	ND	ND	ND	0.11
Nickel	0.92 - 3.0	1.1 - 1.9	13	1,000	2.8	0.64	4.7	0.71
Potassium	96.3 - 243	133 - 176	SB	NL	90.1	58.9	84.7	36.4
Selenium	ND (0.49*)	ND (0.44*)	2 / SB	NL	ND	ND	ND	0.43
Silver	ND - 0.37	ND (0.11*)	SB	100	ND	ND	0.33	0.11
Sodium	101 - 141	110 - 111	SB	NL	150	95.6	135	74.0
Thallium	ND (0.78*)	ND (0.76*)	SB	NL	ND	ND	ND	0.76
Vanadium	2.9 - 16.6	5.4 - 7.1	150 / SB	NL	9.8	1.8	8.8	2.1
Zinc	5.7 - 21.9	8.1 - 11.6	20 / SB	NL	56.2	5.0	64.8	4.7

Notes: 1. All results are in parts per million (mg/Kg)

^{2. * -} Highest analytical method detection limit noted in parenthesis.

^{3.} ND - Compound was non-detectable above the analytical method detection limit (MDL).

5.6 East Side Leaching Pool System

A total of two (2) soil samples were submitted for laboratory analysis from boring LP-1 as well as from boring LP-2. An invert level sample obtained from the bottom of each leaching pool, as well as a soil sample from thirty-six (36) to thirty-eight (38) feet below grade in the vicinity of each leaching pool were submitted for analysis. The four (4) soil samples were analyzed for TAL Metals and TCL Volatiles.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from LP-1 indicated that there were no VOCs detected above their respective laboratory analytical MDL. The analytical results for the invert level sample revealed that copper was present at 153.0 ppm, which is above the respective TAGM Cleanup Objective of 25.0 ppm. However, the detected concentration of copper is well below the SCDHS Action Level of 500 ppm. The analytical results for the deep sample revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objectives. In addition, the concentrations of metals which were detected in the deep sample did correlate to the background metals quality data.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from LP-2 revealed that there were no VOCs detected above their respective laboratory analytical MDL. The analytical results for the invert level sample revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objective or SCDHS Action Level. Although, please note that calcium was detected at a concentration of 6,510 ppm, which does not correspond to the background metals quality data. The analytical results for the deep sample from LP-2 revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objectives. In addition, the concentrations of metals which were detected in the deep sample did correlate to the background metals quality data. The analytical results are summarized in Table 6 and Table 7.

<u>Table 6</u> VOLATILE ORGANIC COMPOUNDS

EAST SIDE LEACHING POOL SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	LP-1 Invert	LP-1 36-38 ft.	LP-2 Invert	LP-2 36 - 38 ft.
Chloromethane	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Bromomethane	ND	ND_	ND	ND
Chloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
Acetone	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND_
1,1-Dichloroethane	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND _
Chloroform	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND _
2-Butanone	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND_
Benzene	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND
cis-1,3-Dichloropropane	ND	ND	_ND	ND
Toluene	ND	ND	ND	ND
trans-1,3-Dichloropropane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND_	ND	ND	ND

Table 6 VOLATILE ORGANIC COMPOUNDS EAST SIDE LEACHING POOL SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	LP-1 Invert	LP-1 36-38 ft.	LP-2 Invert	LP-2 36 - 38 ft.
4-Methyl-2-Pentanone	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND
m & p - Xylenes	ND	ND	ND	ND
o - Xylene	ND	ND	ND	ND
Styrene	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND

Notes: All results are in ug/Kg (parts per billion - ppb).

ND = Non-detectable above analytical method detection limit (MDL).

TABLE 7

METALS ANALYSIS

EAST SIDE LEACHING POOL SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETER	SURFICIAL BACKGROUND	SUBSURFACE BACKGROUND	TAGM VALUES	SCDHS ACTION LEVELS	LP-1 Invert	LP-1 36-38 ft.	LP-2 Invert	LP-2 36-38 ft.
Aluminum	1,360 - 6,820	1,750 - 3,400	SB	NL	1,700	511	4,020	449
Antimony	ND (0.56*)	ND (0.56*)	SB	NL	ND	ND	ND	ND
Arsenic	ND (0.69*)	ND - 1.3	7.5 / SB	25.0	ND	0.70	0.71	ND
Barium	4.3 - 20.8	4.0 - 9.9	300 / SB	NL	7.4	2.3	11.6	2.4
Beryllium	ND (0.11*)	ND (0.11*)	0.16 / SB	8.0	ND	ND	ND	ND
Cadmium	ND (0.11*)	ND (0.11*)	10 / SB	10.0	ND	ND	ND	ND
Calcium	252 - 522	276 - 400	SB	NL	323	158	6,510	152
Chromium	2.7 - 8.4	3.8 - 5.1	50 / SB	100	3.0	3.4	6.5	2.5
Cobalt	0.97 - 2.2	1.2 - 1.7	30 / SB	NL	1.1	0.62	1.7	0.61
Copper	3.9 - 8.8	5.0 - 6.4	25 / SB	500	153	5.9	5.0	5.6
Iron	1,630 - 8,020	3,390 - 3,760	2,000/SB	NL	2,650	1,940	4,600	1,750
Lead	1.9 - 15.9	1.7 - 2.6	SB (4-64)	400	3.1	2.0	3.6	1.3
Magnesium	235 - 737	461 - 556	SB	NL	329	130	818	161
Manganese	30.5 - 132	51.9 - 75	SB	NL	47.6	28.4	64.1	28.5
Mercury	ND (0.11*)	ND (0.11*)	0.1	2.0	ND	ND	ND	ND
Nickel	0.92 - 3.0	1.1 - 1.9	13	1,000	1.4	0.65	2.3	1.3
Potassium	96.3 - 243	133 - 176	SB	NL_	93.1	39.6	275	32.1
Selenium	ND (0.49*)	ND (0.44*)	2 / SB	NL	ND	ND	ND	ND
Silver	ND - 0.37	ND (0.11*)	SB	100	ND	ND	ND	ND
Sodium	101 - 141	110 - 111	SB	NL	68.5	65.5	68.1	75.8
Thallium	ND (0.78*)	ND (0.76*)	SB	NL	ND	ND	ND	ND
Vanadium	2.9 - 16.6	5.4 - 7.1	150 / SB	NL	3.9	2.9	7.5	3.7
Zinc	5.7 - 21.9	8.1 - 11.6	20_/ SB	NL	13.8	4.0	9.7	4.5

Notes: 1. All results are in parts per million (mg/Kg)

- 2. * Highest analytical method detection limit noted in parenthesis.
- 3. ND Compound was non-detectable above the analytical method detection limit (MDL).

5.7 West Side Sanitary System

There were no samples obtained from the primary septic tank (CP-1), as such there are no analytical results regarding CP-1. Although, a total of two (2) soil samples were submitted for laboratory analysis from borings CP-2, CP-3 and CP-4. An invert level sample obtained from the bottom of each overflow cesspool, as well as a soil sample from thirty-six (36) to thirty-eight (38) feet below grade in the vicinity of each cesspool were submitted for analysis. The six (6) soil samples were analyzed for TAL Metals and TCL Volatiles.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from CP-2 indicated that there were no VOCs detected above their respective laboratory analytical MDL. The analytical results for the invert level sample revealed that copper was present at 26.0 ppm, which is above the respective TAGM Cleanup Objectives of 25.0 ppm. Although, the detected concentration of copper is well below the SCDHS Action Level of 500 ppm. The analytical results for the deep sample revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objective. In addition, the concentrations of metals which were detected in the deep sample did correlate to the background metals quality data.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from CP-3 revealed that there were no volatile organic compounds (VOCs) detected above their respective laboratory analytical MDL. The analytical results for the invert level sample and the deep soil sample revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objective or SCDHS Action Level. In addition, the concentrations of metals which were detected in both the invert level sample, as well as the deep sample did correlate to the background metals quality data.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from CP-4 revealed that there were no volatile organic compounds (VOCs) detected above their respective laboratory analytical MDL. The analytical results for the invert level sample revealed that copper was present at 71.7 ppm, nickel at 21.4 ppm and zinc at 46.9 ppm, all of which are above their respective TAGM Cleanup Objectives of 25.0 ppm, 13.0 ppm and 20.0 ppm. However, please note that the detected concentrations of copper and nickel are well below their respective SCDHS Action Levels of 500 ppm and 1,000 ppm. The analytical results for the deep sample revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objectives. In addition, the concentrations of metals which were detected in the deep sample did correlate to the background metals quality data. The analytical results are summarized in Table 8 and Table 9.

<u>Table 8</u> VOLATILE ORGANIC COMPOUNDS

WEST SIDE SANITARY CESSPOOL SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	CP-2 Invert	CP-2 36-38 ft.	CP-3 Invert	CP-3 36-38 ft.	CP-4 Invert	CP-4 36 - 38 ft.
Chloromethane	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND_	ND	ND	ND	ND_
Bromomethane	ND	ND	ND _	ND	ND_	ND _
Chloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND_	ND	ND	ND_	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND _	ND _	ND_
Methylene Chloride	_ ND	ND	ND	ND_	ND _	ND
trans-1,2-Dichloroethene	ND_	ND	ND	ND	ND	ND_
1,1-Dichloroethane	ND_	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND_	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND _
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropane	ND	ND	ND	ND	ND	ND
Toluene	ND _	ND_	ND	ND	ND	ND
trans-1,3-Dichloropropane	ND_	ND_	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND

Table 8

VOLATILE ORGANIC COMPOUNDS WEST SIDE SANITARY CESSPOOL SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	CP-2 Invert	CP-2 36-38 ft.	CP-3 Invert	CP-3 36-38 ft.	CP-4 Invert	CP-4 36 - 38 ft.
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND
m & p - Xylenes	ND	ND	ND	ND	ND	ND
o - Xylene	ND	ND	ND	ND	ND	ND
Styrene	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND

Notes: All results are in ug/Kg (parts per billion - ppb).

ND = Non-detectable above analytical method detection limit (MDL).

TABLE 9

METALS ANALYSIS

WEST SIDE SANITARY CESSPOOL SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETER	SURFICIAL BACKGROUND	SUBSURFACE BACKGROUND	TAGM VALUES	SCDHS ACTION LEVELS	CP-2 Invert	CP-2 36-38ft.	CP-3 Invert	CP-3 36-38 ft.	CP-4 Invert	CP-4 36-38 ft.
Aluminum	1,360 - 6,820	1,750 - 3,400	SB	NL	1,770	458	599	327	375	397
Antimony	ND (0.56*)	ND (0.56*)	SB	NL	ND	ND	ND	ND	ND	ND
Arsenic	ND (0.69*)	ND - 1.3	7.5 / SB	25.0	ND	ND	ND	ND	ND	ND
Barium	4.3 - 20.8	4.0 - 9.9	300 / SB	NL	15.6	5.6	4.8	2.1	5.9	2.9
Beryllium	ND (0.11*)	ND (0.11*)	0.16 / SB	8.0	ND	ND	ND	ND	ND	ND
Cadmium	ND (0.11*)	ND (0.11*)	10 / SB	10.0	ND	ND	ND	ND	0.26	ND
Calcium	252 - 522	276 - 400	SB	NL	274	188	194	153	391	168
Chromium	2.7 - 8.4	3.8 - 5.1	50 / SB	100	6.1	4.2	4.6	2.5	19.3	1.9
Cobalt	0.97 - 2.2	1.2 - 1.7	30 / SB	NL	1.0	0.29	0.39	0.22	3.3	0.31
Copper	3.9 - 8.8	5.0 - 6.4	25 / SB	500	26	5.0	8.4	3.3	71.7	3.0
Iron	1,630 - 8,020	3,390 - 3,760	2,000/SB	NL	2,530	1,070	854	1,020	815	697
Lead	1.9 - 15.9	1.7 - 2.6	SB (4-64)	400	4.9	1.7	6.1	1.6	25.4	1.5
Magnesium	235 - 737	461 - 556	SB	NL	390	168	168	78.7	122	191
Manganese	30.5 - 132	51.9 - 75	SB	NL	14.1	10.0	5.9	4.0	6.2	10.1
Mercury	ND (0.11*)	ND (0.11*)	0.1	2.0	ND	ND	ND	ND	ND	ND
Nickel	0.92 - 3.0	1.1 - 1.9	13	1,000	2.4	0.81	1.1	0.31	21.4	0.47
Potassium	96.3 - 243	133 - 176	SB	NL	135	46.1	85.1	32.4	48.0	112
Selenium	ND (0.49*)	ND (0.44*)	2 / SB	NL	ND	ND	ND	ND	ND	ND
Silver	ND - 0.37	ND (0.11*)	SB	100	ND	ND	0.11	ND	0.89	ND
Sodium	101 - 141	110 - 111	SB	NL	80.4	78.3	68.1	73.8	113	63.0
Thallium	ND (0.78*)	ND (0.76*)	SB	NL	ND	ND	ND	ND	ND	ND
Vanadium	2.9 - 16.6	5.4 - 7.1	150 / SB	NL	5.2	2.0	1.9	2.3	1.9	1.3
Zinc	5.7 - 21.9	8.1 - 11.6	20 / SB	NL	13.8	5.7	5.2	3.7	46.9	4.0

- Notes: 1. All results are in parts per million (mg/Kg)
 - 2. * Highest analytical method detection limit noted in parenthesis.
 - 3. ND Compound was non-detectable above the analytical method detection limit (MDL).

5.8 South Side Roof Drainage System

A total of two (2) soil samples were submitted for laboratory analysis from borings RDP-1 and RDP-2. An invert level sample obtained from the bottom of each roof drainage pool, as well as a soil sample from thirty-six (36) to thirty-eight (38) feet below grade in the vicinity of each pool were submitted for analysis. The four (4) soil samples were analyzed for TAL Metals and TCL Volatiles. Although, please note that due to a transcription error on the chain of custody, the sample from RDP-1 at 36 to 38 feet below grade was not analyzed for TAL Metals.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from RDP-1 indicated that there were no VOCs detected above their respective laboratory analytical MDL. The analytical results for the invert level sample revealed that there were no metals present at concentrations which exceeded their respective TAGM Cleanup Objectives or SCDHS Action Levels. In addition, the concentrations of metals which were detected in the invert level sample did correlate to the background metals quality data.

The analytical results for the invert level sample and the deep soil sample (36 to 38 feet below grade) obtained from RDP-2 revealed that there were no volatile organic compounds (VOCs) detected above their respective laboratory analytical MDL. The analytical results for the invert level sample revealed that zinc was present at 25.8 ppm, which is above it's respective TAGM Cleanup Objective of 20.0 ppm. There is no Action Level for zinc listed by the SCDHS. The analytical results for the deep sample revealed that there were no metals detected at concentrations which exceeded their respective TAGM Cleanup Objectives. In addition, the concentrations of metals which were detected in the deep sample did correlate to the background metals quality data. The analytical results are summarized in Table 10 and Table 11.

Table 10 VOLATILE ORGANIC COMPOUNDS SOUTH SIDE ROOF DRAINAGE POOL SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	RDP-1 Invert	RDP-1 36-38 ft.	RDP-2 Invert	RDP-2 36 - 38 ft.
Chloromethane	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Chloroethane	ND_	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
Acetone	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND _	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
2-Butanone	ND _	ND	ND	ND_
Carbon Tetrachloride	ND _	ND	ND	ND
Benzene	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
Bromodichloromethane	ND	ND _	ND	ND
cis-1,3-Dichloropropane	ND	ND _	ND	ND
Toluene	ND	ND	ND	ND
trans-1,3-Dichloropropane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND

Table 10

VOLATILE ORGANIC COMPOUNDS SOUTH SIDE ROOF DRAINAGE POOL SYSTEM

Precision Concepts 26 Precision Drive Shirley, New York

ANALYTICAL PARAMETERS	RDP-1 Invert	RDP-1 36-38 ft.	RDP-2 Invert	RDP-2 36 - 38 ft.
4-Methyl-2-Pentanone	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND
m & p - Xylenes	ND	ND	ND	ND
o - Xylene	ND	ND	ND	ND
Styrene	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND

Notes: All results are in ug/Kg (parts per billion - ppb).

ND = Non-detectable above analytical method detection limit (MDL).

TABLE 11 METALS ANALYSIS SOUTH SIDE ROOF DRAINAGE POOL SYSTEM

ANALYTICAL PARAMETER	SURFICIAL BACKGROUND	SUBSURFACE BACKGROUND	TAGM VALUES	SCDHS ACTION LEVELS	RDP-1 Invert	RDP-2 Invert	RDP-2 36-38 ft.
Aluminum	1,360 - 6,820	1,750 - 3,400	SB	NL	2,710	2,190	246
Antimony	ND (0.56*)	ND (0.56*)	SB	NL	ND	ND	ND
Arsenic	ND (0.69*)	ND - 1.3	7.5 / SB	25.0	ND	ND	ND
Barium	4.3 - 20.8	4.0 - 9.9	300 / SB	NL	7.9	7.1	2.6
Beryllium	ND (0.11*)	ND (0.11*)	0.16 / SB	8.0	ND	ND	ND
Cadmium	ND (0.11*)	ND (0.11*)	10 / SB	10.0	ND	ND	ND
Calcium	252 - 522	276 - 400	SB	NL	567	362	181
Chromium	2.7 - 8.4	3.8 - 5.1	50 / SB	100	4.3	4.7	3.5
Cobalt	0.97 - 2.2	1.2 - 1.7	30 / SB	NL	1.5	1.1	0.23
Copper	3.9 - 8.8	5.0 - 6.4	25 / SB	500	6.0	6.1	4.3
Iron	1,630 - 8,020	3,390 - 3,760	2,000/SB	NL	3,870	3,210	961
Lead	1.9 - 15.9	1.7 - 2.6	SB (4-64)	400	6.3	29.4	1.6
Magnesium	235 - 737	461 - 556	SB	NL	571	606	85.8
Manganese	30.5 - 132	51.9 - 75	SB	NL	59.2	27.6	11.7
Mercury	ND (0.11*)	ND (0.11*)	0.1	2.0	ND	ND	ND
Nickel	0.92 - 3.0	1.1 - 1.9	13	1,000	2.0	2.0	0.53
Potassium	96.3 - 243	133 - 176	SB	NL	172	239	32.7
Selenium	ND (0.49*)	ND (0.44*)	2 / SB	NL	ND	ND	ND
Silver	ND - 0.37	ND (0.11*)	SB	100	ND	ND	ND
Sodium	101 - 141	110 - 111	SB	NL	89.5	87.1	64.0
Thallium	ND (0.78*)	ND (0.76*)	SB	NL	ND	ND	ND
Vanadium	2.9 - 16.6	5.4 - 7.1	150 / SB	NL	7.3	7.9	1.9
Zinc	5.7 - 21.9	8.1 - 11.6	20 / SB	NL	15.7	25.8	4.9

Notes:

- 1. All results are in parts per million (mg/Kg)
- 2. * Highest analytical method detection limit noted in parenthesis.
- 3. ND Compound was non-detectable above the analytical method detection limit (MDL).

6.0 CONCLUSIONS

The field observations and analytical data obtained during the performance of the FRI were utilized to determine whether or not the operations formerly conducted by Precision Concepts have impacted the subsurface soil and groundwater at the Site and the surrounding neighborhood. The following conclusions were drawn based upon the data obtained during the FRI.

A total of five (5) separate suspected source areas of contamination at the Site were investigated. A total of twenty (20) soil samples were collected from the suspected source areas of contamination and submitted for laboratory analysis. There was no apparent evidence of contamination observed in any of the samples. In addition, the PID field screening procedures did not reveal the presence of elevated levels of contamination. The analytical results revealed that there were no detectable concentrations of VOCs present in any of the collected samples, with the exception of toluene which was present at a concentration of 15 parts per billion (ppb) in the invert level sample obtained from DW-1. The detected concentration of toluene is very minor and does not represent a significant source of contamination. There were some unidentified VOCs present in a few of the samples, although it appears that these were related to the laboratory analysis errors. Based upon the results of the FRI, it is believed that the operations formerly conducted at the site did not lead to the VOC contamination plume which had impacted the residential neighborhoods down-gradient of the Site. There are no further investigation activities recommended with regard to the Site. The Site should be de-listed from the NYS DEC IHWDS listing.

However, the analysis did reveal the presence of metals above their respective TAGM Cleanup Objectives in the invert level samples obtained from LP-1, CP-2, CP-4, DW-1, DW-2, and RDP-2. Although, please note that further comparison of the analytical data revealed that all of the detected concentrations of metals were well below their respective SCDHS Action Levels, with the exception of zinc. This is due to the fact that the SCDHS does not list an Action Level for zinc. It should be noted that none of the detected concentrations of zinc exceeded 100 ppm. In addition, the deep soil samples obtained from immediately down-gradient of these structures did not reveal the presence of elevated levels of metals. Therefore, it can be ascertained that the metals contamination has not impacted the subsurface groundwater at the Site. There is no further work recommended with regard to these structures. Based upon the results of the investigation there will be no need for an Interim Remedial Measure (IRM).

6.1 Interim Remedial Measure (IRM)

There was no significant source of on-site contamination found during the performance of the investigation activities. Therefore, there are no IRMs proposed as part of this report.

Matthew Boeckel

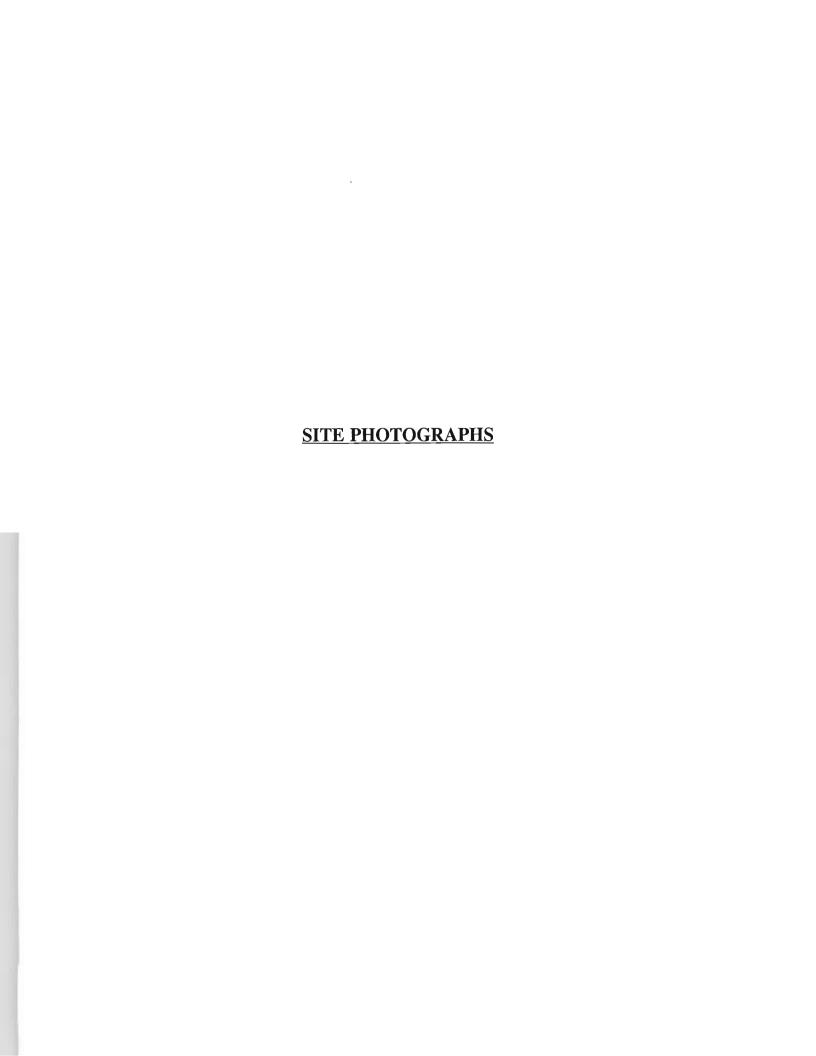
Senior Hydrogeologist

General Consolidated Industries, Inc.

Tom P. Smyth

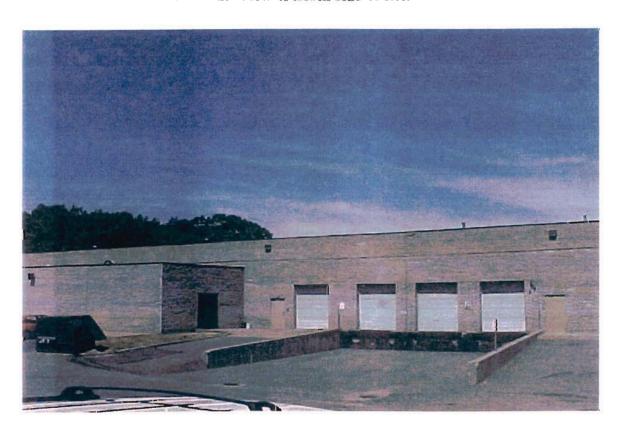
President

General Consolidated Industries, Inc.





1. View of morth side of site.



2. View of south side of site.

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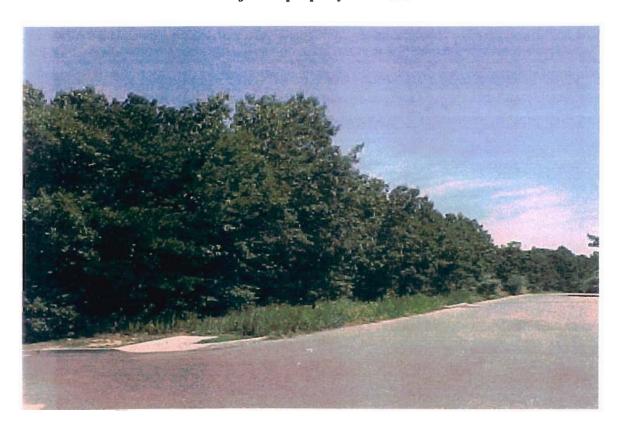
3. View of east side of site.



4. View of west side off site.

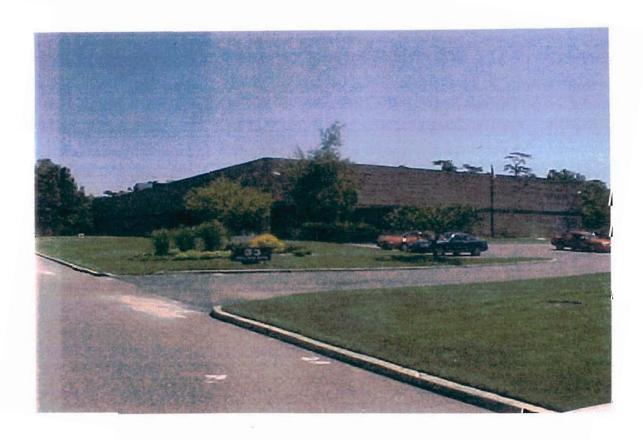


5. View of adjacent property located west of site.



6. View of adjacent property located east of site.

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7. View of adjacent property located south of site.



8. View showing location of on-site septic system.

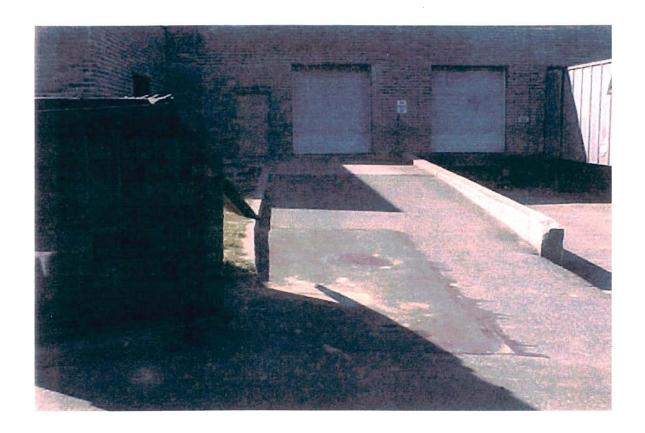


9. View showing location of east side leaching pool system.



10. View showing location of boring AST-1.

n y

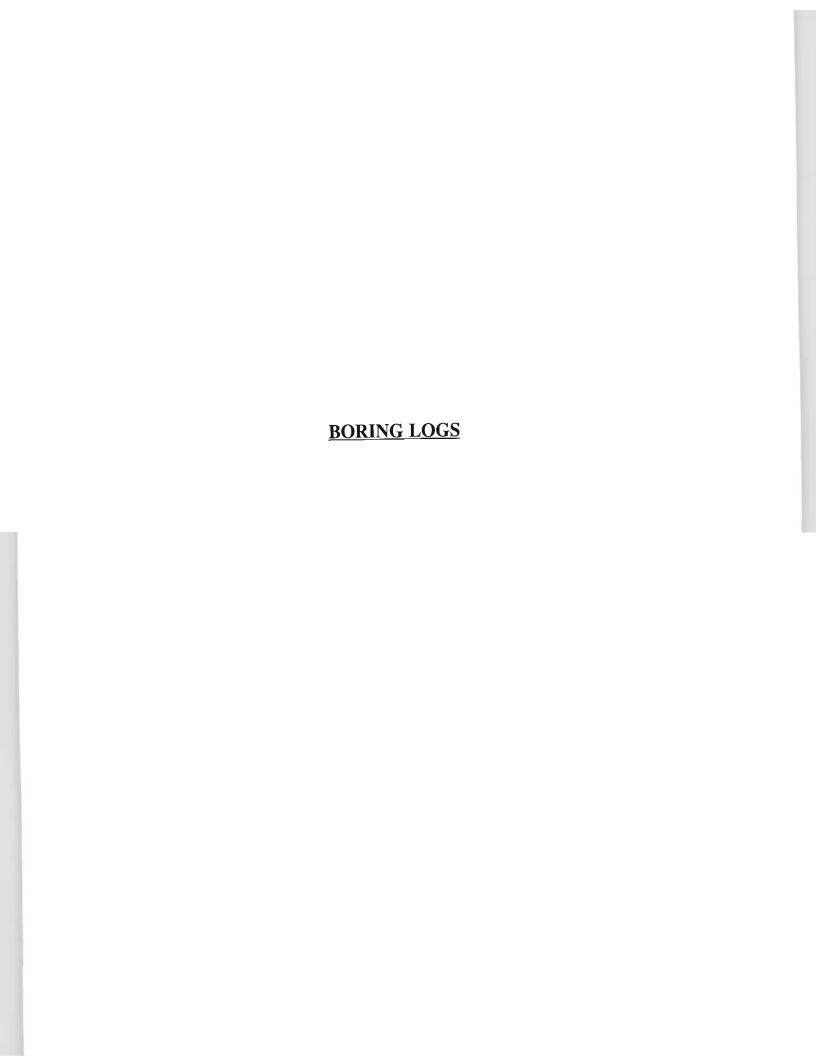


11. View showing location of roof drain pools on south side of site.



12. View showing location of storm water drywells on south side of site.

8 7



SOIL BORING LOG AST-1

GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535				Location: 26 Precision Drive, Shirley, NY Drill Date: June 1, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: South of former AST area.		
<u>Dril</u> ling	Co.: GCI			Driller: Mr. James Mulvey		
	Наирр	oauge, N.Y		Drill Rig: GeoProbe 550 Van-Mounted		
Total W	ell Depth ((ft.): Not Applica	ble	Screen (ft.): Not Applicable		
Riser (fi	t.): <u>N</u> ot App	olicable		Filter Pack: Not Applicable		
Annular	Seal: Not	Applicable		Well Head: Not Applicable		
Sample	Depth (ft.)			LITHOLOGICAL DESCRIPTION		
Start	End	% Recovery	PID			
0'0"	1'0"	100%	19.6 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
5'0"	7'0"	80%	24.2 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
15'0"	17'0"	100%	21.6 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
25′0"	27' 0"	100%	17.1 ppm	Light brown fine to coarse sand with pebbles. No odor or staining noted.		
35'0"	37' 0"	100%	19.0 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
				* Groundwater encountered at 37 feet below grade.		
PID: Hi	NU Model	DL-101		Weather Conditions: Sunny, 85 degrees Fahrenheit		
Drilling Time: 1.5 hours.				Miscellaneous Site Conditions: No other pertinent site information.		
APPLICABLE UNI				IFIED SOIL CLASSIFICATION		
Soil Groups Typical Soil Names						
GM		Silty G	ravels, Grave	l-Sand-Silt Mixture		
GC		Clayey	Gravels, Gra	vel-Sand-Clay Mixture		
SC		Clayey	Sands, Sand-	Clay Mixtures		
SM	6.54	Silty_So	inds Sand-Sil	1 Mixtures		

SOIL BORING LOG DW-1

1092 M Hauppo Phone:	otor Parks	York 11788 -1600	onsultants	Location: 26 Precision Drive, Shirley, NY Drill Date: June 1, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: East side of loading dock area.			
Drilling	Co.: GCI			Driller: Mr. James Mulvey			
	Наирр	pauge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted			
Total W	ell Depth	(ft.): Not Applica	ble	Screen (ft.): Not Applicable			
Riser (fi	t.): Not App	plicable		Filter Pack: Not Applicable			
Annular	Seal: Not	Applicable		Well Head: Not Applicable			
Sample	Depth (ft.)			LITHOLOGICAL DESCRIPTION			
Start	End	% Recovery	PID				
Invert		100% 20.2 ppi		Brown, fine to coarse sand with pebbles. No odor or staining noted.			
25' 0"	27' 0"	20%	6.7 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
30' 0"	32' 0"	75%	21.2 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
35' 0"	37' 0"	50%	11.6 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
				* Groundwater encountered at 37 feet below grade			
PID: Hì	VU Model	DL-101		Weather Conditions: Sunny, 85 degrees Fahrenheit			
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.			
	180	APPI	LICABLE UN	IFIED SOIL CLASSIFICATION			
Soil Gro	nıns	Typical	Soil Names				
GM		Silty G	ravels, Grave	l-Sand-Silt Mixture			
GC		Clayey	Gravels, Gra	vel-Sand-Clay Mixture			
SC		Clayey	Sands, Sand-	Clay Mixtures			
SM		Silty So	inds, Sand-Sil				

SOIL BORING LOG DW-2

GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535				Location: 26 Precision Drive, Shirley, NY Drill Date: June 1, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: West side of loading dock area.			
Drilling	Co.: GCI			Driller: Mr. James Mulvey			
	Наирр	pauge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted			
Total W	ell Depth	(ft.): Not Applica	able	Screen (ft.): Not Applicable			
Riser (f	t.): Not App	plicable		Filter Pack: Not Applicable			
Annula	Seal: Not	Applicable		Well Head: Not Applicable			
Sample	Sample Depth (ft.)			LITHOLOGICAL DESCRIPTION			
Start	End	% Recovery	PID				
Invert		100%	19.6 ррт	Brown, fine to coarse sand with pebbles. No odor or staining noted.			
25' 0"	27' 0"	100%	0.6 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
36' 0"	38' 0"	100%	1.0 ppm	Light brown, fine to coarse sand with pebbles. No odor of staining noted.			
				* Groundwater encountered at 37 feet below grade			
PID: Hi	NU <u>Model</u> .	DL-101		Weather Conditions: Sunny, 85 degrees Fahrenheit			
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.			
APPLICABLE UN				IFIED SOIL CLASSIFICATION			
Soil Groups Typical Soil Names							
GM Silty Gravels, Gravel				l-Sand-Silt Mixture			
GC		Clayey	Gravels, Gra	vel-Sand-Clay Mixture			
SC		Clayey	Sands, Sand-	Clay Mixtures			
SM		Silty Se	ands Sand-Sil				

SOIL BORING LOG RDP-1

GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535			onsultants	Location: 26 Precision Drive, Shirley, NY Drill Date: June 2-3, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: Eastern drainage pool.			
Drilling	Co.: GCI			Driller: Mr. James Mulvey			
	Наирр	pauge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted			
Total W	ell Depth (ft.): Not Applica	ble	Screen (ft.): Not Applicable			
Riser (fi	t.): Not App	olicable		Filter Pack: Not Applicable			
Annular	Seal: Not	Applicable		Well Head: Not Applicable			
Sample	Depth (ft.)			LITHOLOGICAL DESCRIPTION			
Start	End	% Recovery	PID				
Invert		100%	0.4 ppm	Brown, fine to coarse sand with pebbles. No odor or staining noted.			
25' 0"	27' 0"	100% 0.4 ppm		Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
30' 0"	32' 0"	100% 0.4 ppm		Light brown, fine to coarse sand with pebbles. No odor of staining noted.			
36' 0"	38' 0"	100%	0.1 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
				* Groundwater encountered at 37 feet below grade.			
PID: Hi	VU <u>Model</u> .	DL-101		Weather Conditions: Sunny, 85-90 degrees Fahrenheit			
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.			
		APP	LICABLE UN	VIFIED SOIL CLASSIFICATION			
Soil Gro	oups	Typica	l Soil Names				
GM		Silty G	ravels, Grave	el-Sand-Silt Mixture			
GC		Clayey	Gravels, Gra	avel-Sand-Clay Mixture			
SC		Clayey	Sands, Sand	-Clay Mixtures			
SM		Silty S	ands Sand-Si	ilt Mixtures			

SOIL BORING LOG RDP-2

GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535			onsultants	Location: 26 Precision Drive, Shirley, NY Drill Date: June 2, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: Eastern drainage pool.		
Drilling	Co.: GCI			Driller: Mr. James Mulvey		
	Наирр	auge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted		
Total W	ell Depth (ft.): Not Applica	ble	Screen (ft.): Not Applicable		
Riser (fi	t.): Not App	olicable		Filter Pack: Not Applicable		
Annular	r Seal: Not	Applicable	-	Well Head: Not Applicable		
Sample	Depth (ft.)			LITHOLOGICAL DESCRIPTION		
Start	End	% Recovery	PID			
Invert		100%	0.4 ppm	Brown, fine to coarse sand with pebbles. No odor or staining noted.		
25'0"	27' 0"	100%	0.4 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
30'0"	32' 0"	100%	0.4 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
36' 0"	38' 0"	100%	0.1 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
				* Groundwater encountered at 37 feet below grade.		
PID: HI	NU Model	DL-101		Weather Conditions: Sunny, 85-90 degrees Fahrenheit		
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.		
	100 P.	APP	LICABLE UN	VIFIED SOIL CLASSIFICATION		
Soil Gro	nups	Туріса	l Soil Names			
GM		Silty G	ravels, Grave	el-Sand-Silt Mixture		
GC		Clayey	Gravels, Gra	avel-Sand-Clay Mixture		
SC		Clayey	Sands, Sand	-Clay Mixtures		
SM		Silty_So	ands, Sand-Si	ilt Mixtures		

SOIL BORING LOG CP-2

GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535			onsultants	Location: 26 Precision Drive, Shirley, NY Drill Date: June 3, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: Northern overflow cesspool.			
Drilling	Co.: GCI			Driller: Mr. James Mulvey			
	Наирр	auge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted			
Total W	ell Depth (ft.): Not Applica	ble	Screen (ft.): Not Applicable			
Riser (f	t.): Not App	olicable		Filter Pack: Not Applicable			
Annula	r Seal: Not	Applicable		Well Head: Not Applicable			
Sample	Depth (ft.)		1	LITHOLOGICAL DESCRIPTION			
Start	End	% Recovery	PID				
Invert		100%	1.9 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
25' 0"	27' 0"	100% 3.9 ppm		Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
30' 0"	32' 0"	100% 2.8 ppm		Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
36' 0"	38' 0"	100%	3.2 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
				* Groundwater encountered at 37 feet below grade.			
PID: H	NU Model .	DL-101		Weather Conditions: Sunny, 85 degrees Fahrenheit			
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.			
		APP	LICABLE UN	NIFIED SOIL CLASSIFICATION			
Soil Gra	ouns	Typica	l Soil Names				
GM		Silty G	ravels, Grave	el-Sand-Silt Mixture			
GC		Clayey	Gravels, Gra	avel-Sand-Clay Mixture			
SC		Clayey	Sands, Sand	-Clay Mixtures			
SM	- 3-	Silty S	ands, Sand-Si	ilt Mixtures			

SOIL BORING LOG CP-3

GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535			onsultants	Location: 26 Precision Drive, Shirley, NY Drill Date: June 3, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: Western overflow cesspool.			
Drilling	Co.: GCI			Driller: Mr. James Mulvey			
	Наирр	auge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted			
Total W	ell Depth ((ft.): Not Applica	ible	Screen (ft.): Not Applicable			
Riser (f.	t.): Not App	olicable		Filter Pack: Not Applicable			
Annula	Seal: Not	Applicable		Well Head: Not Applicable			
Sample	Depth (ft.)			LITHOLOGICAL DESCRIPTION			
Start	End	% Recovery	PID				
Invert		100%	2.2 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
25' 0"	27' 0"	100%	6.2 ppm	Light brown, fine to coarse sand with pebbles. No odor of staining noted.			
30'0"	32' 0"	100%	4.3 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
36' 0"	38' 0"	100%	3.7 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
_				* Groundwater encountered at 37 feet below grade.			
PID: H	VU Model	DL-101		Weather Conditions: Sunny, 85 degrees Fahrenheit			
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.			
		APP	LICABLE UN	IIFIED SOIL CLASSIFICATION			
Soil Gro	oups	Typica	l Soil Names				
GM		Silty G	ravels, Grave	el-Sand-Silt Mixture			
GC		Clayey	Gravels, Gra	avel-Sand-Clay Mixture			
SC		Clayey	Sands, Sand	-Clay Mixtures			
SM		Silty S	ands Sand-Si	It Mixtures			

SOIL BORING LOG CP-4

GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535			onsultants	Location: 26 Precision Drive, Shirley, NY Drill Date: June 3, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: Southern drainage pool.		
Drilling	Co.: GCI			Driller: Mr. James Mulvey		
	Наирр	pauge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted		
Total W	ell Depth	(ft.): Not Applica	ble	Screen (ft.): Not Applicable		
Riser (f	t.): Not App	plicable		Filter Pack: Not Applicable		
Annula	r Seal: Not	Applicable		Well Head: Not Applicable		
Sample	Depth (ft.)			LITHOLOGICAL DESCRIPTION		
Start	End	% Recovery	PID			
Invert		100%	24.2 ppm	Black, fine to coarse sand with pebbles. No odor noted. Sample was discolored.		
30' 0"	32' 0"	100%	13.8 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
36' 0"	38' 0"	100%	11.0 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.		
				* Groundwater encountered at 37 feet below grade.		
PID: HI	VU Model .	DL-101		Weather Conditions: Sunny, 85 degrees Fahrenheit		
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.		
		APP	LICABLE UN	IFIED SOIL CLASSIFICATION		
Soil Gro	nuns	Typica	Soil Names			
GM		Silty G	ravels, Grave	l-Sand-Silt Mixture		
GC _		Clayey	Gravels, Gra	vel-Sand-Clay Mixture		
SC		Clayey	Sands, Sand-	Clay Mixtures		

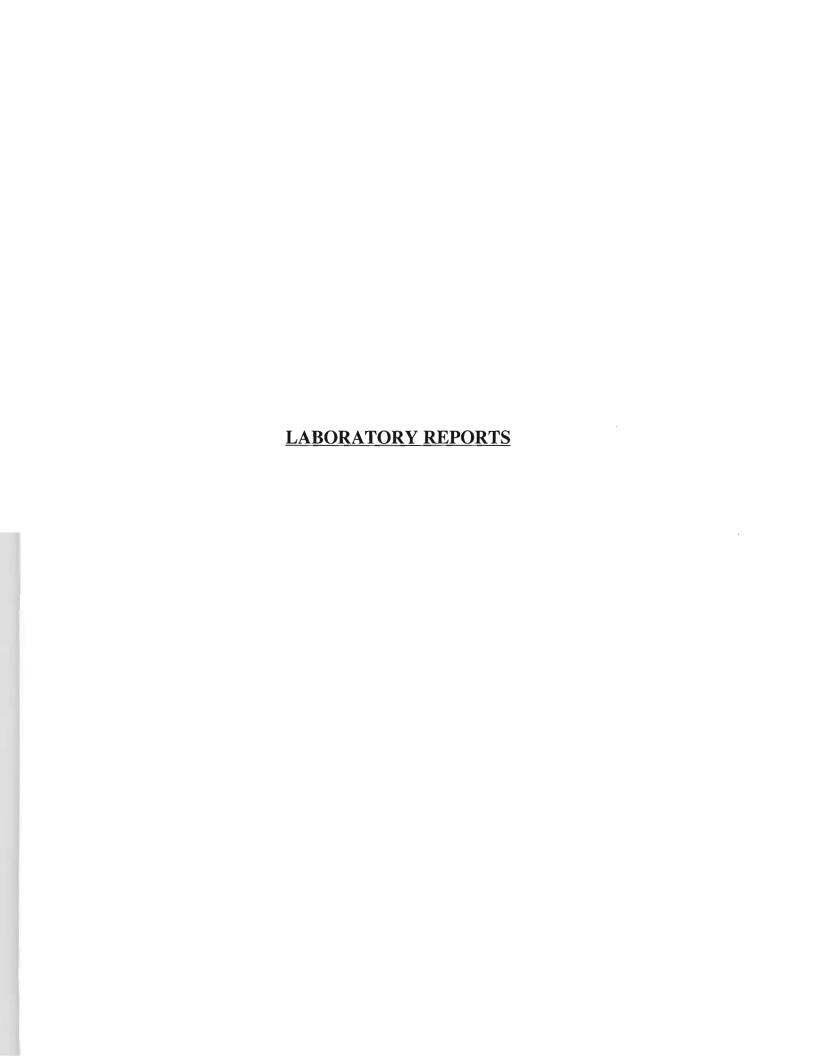
Silty Sands Sand-Silt Mixtures

SOIL BORING LOG LP-1

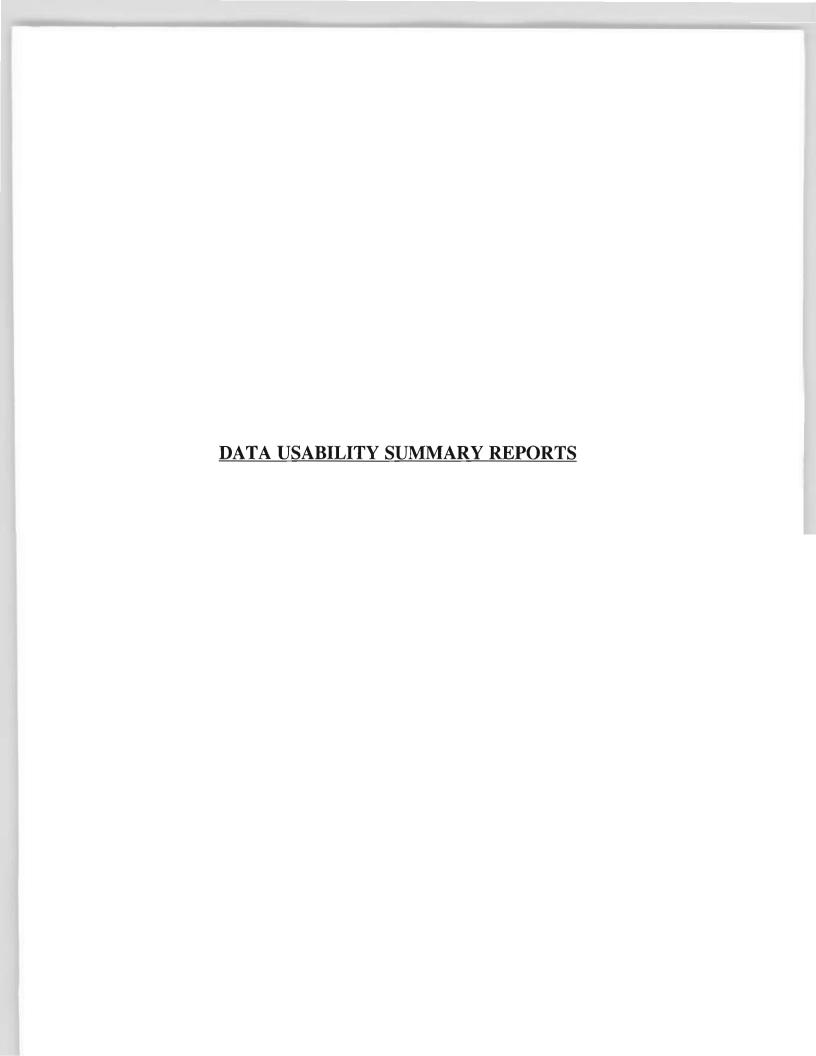
GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535			onsultants	Location: 26 Precision Drive, Shirley, NY Drill Date: June 7, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: Northern drainage pool on east side.			
Drilling	Co.: GCI			Driller: Mr. James Mulvey			
	Наирр	auge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted			
Total W	ell Depth (ft.): Not Applica	ıble	Screen (ft.): Not Applicable			
Riser (fi	t.): Not App	olicable		Filter Pack: Not Applicable			
Annular	Seal: Not	Applicable		Well Head: Not Applicable			
Sample	Depth (ft.)			LITHOLOGICAL DESCRIPTION			
Start	End	% Recovery	PID				
Invert		100%	1.6 ppm	Brown, fine to coarse sand with pebbles. No odor or staining noted.			
25'0"	27' 0"	100%	1.9 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
30' 0"	32' 0"	100%	2.2 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
36' 0"	38' 0"	100%	1.1 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
				* Groundwater encountered at 37 feet below grade.			
PID: HI	VU Model	DL-101		Weather Conditions: Sunny, 85 degrees Fahrenheit			
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.			
	5	APP	LICABLE UN	NIFIED SOIL CLASSIFICATION			
Soil Gro	201105	Typica	l Soil Names				
GM _		Silty G	ravels, Grave	el-Sand-Silt Mixture			
GC		Clayey	Gravels, Gra	avel-Sand-Clay Mixture			
SC		Clayey	Sands, Sand	-Clay Mixtures			
SM		Silty Se	ands Sand-Si	ilt Mixtures			

SOIL BORING LOG LP-2

GCI Environmental & Engineering Consultants 1092 Motor Parkway Hauppauge, New York 11788 Phone: (516) 851-1600 Fax: (516) 851-0535			onsultants	Location: 26 Precision Drive, Shirley, NY Drill Date: June 7 & 10, 1999 Project No.: 960102 Client: Vince Marino Hydrogeologist: Mr. Matthew Boeckel Boring Location: Southern drainage pool on east side.			
Drilling	Co.: GCI			Driller: Mr. James Mulvey			
	Наирр	pauge, N.Y.		Drill Rig: GeoProbe 550 Van-Mounted			
Total W	ell Depth ((ft.): Not Applica	ble	Screen (ft.): Not Applicable			
Riser (f	.): Not App	olicable	-	Filter Pack: Not Applicable			
Annulai	Seal: Not	Applicable		Well Head: Not Applicable			
Sample	Depth (ft.)			LITHOLOGICAL DESCRIPTION			
Start	End	% Recovery	PID				
Invert		100%	1.5 ppm	Brown, fine to coarse sand with pebbles. No odor or staining noted.			
25'0"	27' 0"	100%	1.5 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
30'0"	32' 0"	100%	1.2 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
36' 0"	38' 0"	100%	1.9 ppm	Light brown, fine to coarse sand with pebbles. No odor or staining noted.			
				* Groundwater encountered at 37 feet below grade.			
PID: Hi	VU Model	DL-101		Weather Conditions: Sunny, 85 degrees Fahrenheit			
Drilling	Time: 1.5	hours.		Miscellaneous Site Conditions: No other pertinent site information.			
		APP	LICABLE UN	NIFIED SOIL CLASSIFICATION			
Soil Gra	nuns	Typica	l Soil Names				
GM		Silty G	ravels, Grave	el-Sand-Silt Mixture			
GC		Clayey	Gravels, Gra	avel-Sand-Clay Mixture			
SC		Clayey	Sands, Sand	-Clay Mixtures			
SM			ands Sand-Si				



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Please refer to addendum	раскадея for Appendix С	



RE: Data Validation samples L3558-01-11 through L3558-11

Client Sample ID: B-1	(surficial)	Sample collected by:	Client
Chemtech Project #:119	84ASP	Date sample collected:	6/2/99
Sample Matrix: Soi	I	Date sample received:	6/3/99
Analysis requested: TAI	L metals	Date digested:	6/7/99
Laboratory ID #: 745	522	Date analyzed:	6/9/99
Cleanup procedure: N/A	١	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					Х	
Proper analytical method cited 6010A					Х	
Method Blank					X	
Instrument calibration					Х	
Interference check					X	
Matrix spike summary					Х	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

• No Non'-conformities found.

RE: Data Validation samples L3558-01-11 through L3558-11

Client Sample ID: B-2 (surficial)	Sample collected by:	Client
Chemtech Project #:11984ASP	Date sample collected:	6/2/99
Sample Matrix: Soil	Date sample received:	6/3/99
Analysis requested: TAL metals	Date digested:	6/7/99
Laboratory ID #: 74523	Date analyzed:	6/9/99
Cleanup procedure: N/A	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					Х	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 6010A					Х	
Method Blank					X	
Instrument calibration					X	
Interference check					Х	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

• No Non-conformities found.

Client Sample ID: B-3	(surficial)	Sample collected by:	Client
Chemtech Project #:119	84ASP	Date sample collected:	6/2/99
Sample Matrix: Soi	1	Date sample received:	6/3/99
Analysis requested: TAI	L metals	Date digested:	6/7/99
Laboratory ID #: 745	24	Date analyzed:	6/9/99
Cleanup procedure: N/A	١	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					Х	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					Х	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					Х	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: B-1 (5 fee	t) Sample collected by:	Client
Chemtech Project #:11984ASF	Date sample collected:	6/2/99
Sample Matrix: Soil	Date sample received:	6/3/99
Analysis requested: TAL meta	Is Date digested:	6/7/99
Laboratory ID #: 74525	Date analyzed:	6/9/99
Cleanup procedure: N/A	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					Х	
Matrix spike summary					Х	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: B-2 (5 fee	st) Sample collected by:	Client
Chemtech Project #:11984ASI	P Date sample collected:	6/2/99
Sample Matrix: Soil	Date sample received:	6/3/99
Analysis requested: TAL meta	ls Date digested:	6/7/99
Laboratory ID #: 74526	Date analyzed:	6/9/99
Cleanup procedure: N/A	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody				_	X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 6010A					Х	
Method Blank					X	
Instrument calibration					X	
Interference check					Х	
Matrix spike summary					X	
Duplicate recovery		_			X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: B-3 (5 feet) Sample collected by: Client Chemtech Project #:11984ASP Date sample collected: 6/2/99 Sample Matrix: Date sample received: Soil 6/3/99 Analysis requested: TAL metals Date digested: 6/7/99 Laboratory ID #: 74527 Date analyzed: 6/9/99 Cleanup procedure: N/A Extraction method: 3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					Х	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					Х	

Explanation of non-conforming parameters:

Client Sample ID: DW	V-1(invert)	Sample collected by:	Client
Chemtech Project #:119	984ASP	Date sample collected:	6/2/99
Sample Matrix: So	il	Date sample received:	6/3/99
Analysis requested: TA	L metals	Date digested:	6/7/99
Laboratory ID #: 74!	528	Date analyzed:	6/9/99
Cleanup procedure: N/A	A	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation	_				X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					Х	
Interference check					X	
Matrix spike summary					Х	
Duplicate recovery					Х	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: DW-2(invert)	Sample collected by:	Client
Chemtech Project #:11984ASP	Date sample collected:	6/2/99
Sample Matrix: Soil	Date sample received:	6/3/99
Analysis requested: TAL metals	Date digested:	6/7/99
Laboratory ID #: 74529	Date analyzed:	6/9/99
Cleanup procedure: N/A	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody			,		X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 6010A	_				Х	
Method Blank	_				Х	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					Х	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: DW-1(35-37) Sample collected by: Client Chemtech Project #:11984ASP Date sample collected: 6/2/99 Sample Matrix: Date sample received: Soil 6/3/99 Analysis requested: TAL metals Date digested: 6/7/99 Laboratory ID #: Date analyzed: 74530 6/9/99 Cleanup procedure: N/A Extraction method: 3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time				_	X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID:	AST-1(surficial	Sample collected by:	Client
Chemtech Project #	:11984ASP	Date sample collected:	6/2/99
Sample Matrix:	Soil	Date sample received:	6/3/99
Analysis requested:	TAL metals	Date digested:	6/7/99
Laboratory ID #:	74531	Date analyzed:	6/9/99
Cleanup procedure:	N/A	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration		_			Х	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: AST-1(35-37)	Sample collected by:	Client
Chemtech Project #:11984ASP	Date sample collected:	6/2/99
Sample Matrix: Soil	Date sample received:	6/3/99
Analysis requested: TAL metals	Date digested:	6/7/99
Laboratory ID #: 74532	Date analyzed:	6/9/99
Cleanup procedure: N/A	Extraction method:	3050A

TAL metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: B-2(surficial) Sample collected by: Client Client Project #: 11984ASP Date sample collected: 6/2/99 Sample Matrix: Date sample received: Soil 6/2/99 Analysis requested: Total mercury Date digested: 6/10/99 Laboratory ID #: 74523 Date analyzed: 6/10/99 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation	- 277				X	
Proper analytical method cited 7471A					X	
Method Blank		-713			X	
Instrument calibration					X	
Laboratory control sample		117			X	

Explanation of non-conforming parameters:

Client Sample ID: B-3(surficial) Sample collected by: Client Date sample collected: 6/2/99 11984ASP Client Project #: Sample Matrix: Date sample received: 6/2/99 Soil Analysis requested: Total mercury Date digested: 6/10/99 Date analyzed: Laboratory ID #: 74524 6/10/99 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					Х	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					Х	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

B-1(5-feet) Sample collected by: Client Sample ID: Client Client Project #: 11984ASP Date sample collected: 6/2/99 Sample Matrix: Date sample received: Soil 6/2/99 Date digested: 6/10/99 Analysis requested: Total mercury Laboratory ID #: 74525 Date analyzed: 6/10/99 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time				_	X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Sample collected by: **B-2(5-feet)** Client Client Sample ID: Client Project #: Date sample collected: 6/2/99 11984ASP Sample Matrix: Date sample received: Soil 6/2/99 Date digested: Analysis requested: Total mercury 6/10/99 Laboratory ID #: Date analyzed: 6/10/99 74526 Extraction method: 7471A Cleanup procedure: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody	_				X	
Sample digestion holding time				_	X	
Sample analysis time			X	_		
Sample preservation					X	
Proper analytical method cited 7471A				_	X	
Method Blank					X	
Instrument calibration				_	X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: B-3(5 feet) Sample collected by: Client Client Project #: 11984ASP Date sample collected: 6/2/99 Sample Matrix: Date sample received: 6/2/99 Soil Analysis requested: Total mercury Date digested: 6/10/99 Laboratory ID #: 74527 Date analyzed: 6/10/99 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: DW-1(invert Sample collected by: Client Client Project #: Date sample collected: 11984ASP 6/2/99 Sample Matrix: Date sample received: Soil 6/2/99 Analysis requested: Total mercury Date digested: 6/10/99 Laboratory ID #: 74528 Date analyzed: 6/10/99 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X		-	
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration	_				X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: DW-2(invert) Sample collected by: Client Date sample collected: Client Project #: 11984ASP 6/2/99 Sample Matrix: Date sample received: 6/2/99 Soil Analysis requested: Total mercury Date digested: 6/10/99 Laboratory ID #: Date analyzed: 74529 6/10/99 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time	_				X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

DW-1(35-37) Sample collected by: Client Sample ID: Client Date sample collected: Client Project #: 6/2/99 11984ASP Sample Matrix: Date sample received: Soil 6/2/99 Analysis requested: Total mercury Date digested: 6/10/99 Laboratory ID #: Date analyzed: 6/10/99 74530 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: AST-1(surficial) Sample collected by: Client Client Project #: Date sample collected: 6/2/99 11984ASP Sample Matrix: Date sample received: 6/2/99 Soil Date digested: Analysis requested: Total mercury 6/10/99 Laboratory ID #: Date analyzed: 74531 6/10/99 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

AST-1(35-37) Sample collected by: Client Client Sample ID: Date sample collected: Client Project #: 6/2/99 11984ASP Sample Matrix: Date sample received: Soil 6/2/99 Date digested: Analysis requested: Total mercury 6/10/99 Laboratory ID #: Date analyzed: 6/10/99 74532 Cleanup procedure: N/A Extraction method: 7471A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					Х	
Sample analysis time			Х			
Sample preservation					Х	
Proper analytical method cited 7471A					Х	
Method Blank				_	X	
Instrument calibration					Х	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Mr. Mat Brockel GCI Inc. 125 Baylis Road Suite 330 Melville, New York 11747

RE: Data Validation samples L3558-01-11 through L3558-11

Client Sample ID: DW-1(invert)

Chemtech Project #: 11984ASP

Sample Matrix: Soil
Analysis requested: EPA 8260B

Laboratory ID #: 7

74528

Cleanup procedure: N/A

Sample collected by:

Date sample collected: Date sample received:

Date extracted:

Date analyzed: Extraction method: 6/2/99 N/A

Client

6/2/99

6/**8/99** N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample extraction holding time			X			
Sample analysis time			X			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,100,200,500					Х	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

DW-2(invert) Sample collected by: Client Sample ID: Client Chemtech Project #: 11984ASP Date sample collected: 6/2/99 Date sample received: Sample Matrix: 6/2/99 Soil Analysis requested: EPA 8260B Date extracted: N/A Laboratory ID #: 74529 Date analyzed: 6/8/99 Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample extraction holding time			X			
Sample analysis time			X			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery						X
SMC compound (surrogate) recovery						X
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,100,200,500					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					Х	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

- System Monitoring Compounds (ISTD) criteria not met.
- System Monitoring Compounds (Surrogate) criteria not met.

Sample collected by: Client Client Sample ID: DW-1 (35-37) Date sample collected: 6/2/99 Chemtech Project #: 11984ASP Date sample received: Sample Matrix: 6/2/99 Soil Analysis requested: EPA 8260B Date extracted: N/A Laboratory ID #: 6/7/99 74530 Date analyzed: Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample extraction holding time			X			
Sample analysis time			Х			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 10,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

AST-1 (surficial) Client Sample ID: Sample collected by: Client Chemtech Project #: 11984ASP Date sample collected: 6/1/99 Date sample received: Sample Matrix: 6/2/99 Soil Analysis requested: EPA 8260B Date extracted: N/A Laboratory ID #: Date analyzed: 74531 6/8/99 Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample extraction holding time			X			
Sample analysis time			Х			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624	_				X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate)					X	
recovery						
GC/MS calibration					X	
Method Blank					X	
Five point calibration					X	
10,20,50,100,200						
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Sample collected by: Client Client Sample ID: **AST-1 (35-37)** Chemtech Project #: 11984ASP Date sample collected: 6/1/99 Date sample received: Sample Matrix: 6/2/99 Soil Analysis requested: EPA 8260B Date extracted: N/A Laboratory ID #: Date analyzed: 6/7/99 74532 Extraction method: Cleanup procedure: N/A N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample extraction holding time			X			
Sample analysis time			X			
Sample preservation 4°C			X			
Proper analytical method cited 8260					Х	·-
Column used RTX624					Х	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	Х					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate)					X	
recovery						
GC/MS calibration					X	
Method Blank					X	
Five point calibration					X	
10,20,50,100,200						
Calibration summary					X	
Surrogate summary					X	
ISTD summary					_X	
Injection log sequence					_X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Mr. Mat Brockel GCI Inc. 125 Baylis Road Suite 330 Melville, New York 11747 August 2, 1999

RE: Data Validation samples RDP-1 (invert), DW-2 (36-38), CP-2 (Invert), CP-3 (36-38), CP-2 (36-38), CP-3 (invert), RDP-2 (36-38), RDP-2 (invert), CP-4 (36-38), CP-4 (invert), RDP-1 (36-38), LP-1 (invert), LP-1 (36-38), LP-2 (36-38), LP-2 (invert).

Client Sample ID: RDP-1 (invert) Sample collected by: Client Chemtech Project #: 12044ASP Date sample collected: 6/2/99 Sample Matrix: Soil Date sample received: 6/8/99 Analysis requested: EPA 8260B Date extracted: N/A Laboratory ID #: 74770 Date analyzed: 6/11/99 Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody	_				X	
Sample holding time	;		X			
Sample analysis time			X			
Sample preservation 4°C			Х			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	Х					
SMC compound (ISTD) recovery		_			X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					Х	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					Х	

Explanation of non-conforming parameters:

Client Sample ID: DW-2 (36-38) Sample collected by: Client Chemtech Project #: 12044ASP Date sample collected: 6/2/99 Date sample received: 6/8/99

Sample Matrix: Soil Date sample received: 6/8/99
Analysis requested: EPA 8260B Date extracted: N/A

Laboratory ID #: 74771 Date analyzed: 6/11/99
Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					Х	
Sample holding time			X			
Sample analysis time			X			
Sample preservation 4°C	_		X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	Χ					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	L

Explanation of non-conforming parameters:

Client Sample ID: CP-2 (invert) Sample collected by: Client Chemtech Project #: 12044ASP Date sample collected: 6/3/99 Sample Matrix: Soil Date sample received: 6/8/99 Analysis requested: EPA 8260B Date extracted: N/A

Laboratory ID #: 74772 Date analyzed: 6/16/99
Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item ~	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time			X			
Sample analysis time			Х			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					Х	
SMC compound (surrogate) recovery					X	
GC/MS calibration	٠				X	
Method Blank					Х	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Client Sample ID: CP-3 (36-38) Sample collected by: Client Chemtech Project #: 12044ASP Date sample collected: 6/3/99

Sample Matrix: Date sample received: 6/8/99 Soil Analysis requested: EPA 8260B Date extracted: N/A

Laboratory ID #: 74773 Date analyzed: 6/16/99

Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time			X			
Sample analysis time			X			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery	_				X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Sample collected by: CP-2 (36-38) Client Client Sample ID: Chemtech Project #: 12044ASP Date sample collected: 6/3/99 Date sample received: Sample Matrix: ' 6/8/99 Soil Analysis requested: EPA 8260B Date extracted: N/A

Laboratory ID #: Date analyzed: 74774 6/11/99 Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

EPA 8260B								
Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable		
Sample chain of custody					X			
Sample holding time			Х					
Sample analysis time			X					
Sample preservation 4°C			X					
Proper analytical method cited 8260					X			
Column used RTX624					X			
Quantitation Report					X			
BFB performance check	X							
GC/MS tuning frequency (24 hr)	X							
SMC compound (ISTD) recovery					X			
SMC compound (surrogate) recovery					X			
GC/MS calibration					X			
Method Blank					X			
Five point calibration 5,20,50,100,200					X			
Calibration summary					X	<u></u>		
Surrogate summary					X			
ISTD summary					X			
Injection log sequence					X			
Matrix spike (MS)					X			
Matrix spike duplicate (MSD)					X			

Explanation of non-conforming parameters:

Client Sample ID: CP-3 (invert) Chemtech Project #: 12044ASP

Sample collected by: Date sample collected: Client

Sample Matrix:

Soil

6/3/99

Analysis requested: EPA 8260B

Date sample received: Date extracted:

6/8/99 N/A

Laboratory ID #:

74775

Date analyzed:

6/11/99

Cleanup procedure: N/A

Extraction method:

N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time			Х			
Sample analysis time			X			
Sample preservation 4°C			X			
Proper analytical method cited 8260	_				X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Client Sample ID: RDP-2 (36-38) Sample collected by:

Client

Chemtech Project #: 12044ASP Sample Matrix: Soil

Date sample collected: Date sample received:

6/2/99 6/8/99

Analysis requested: EPA 8260B

Date extracted:

N/A

Laboratory ID #:

74776

Date analyzed:

6/11/99

Cleanup procedure: N/A

Extraction method:

N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time			Х			
Sample analysis time			Х			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Client Sample ID: RDP-2 (invert)
Chemtech Project #: 12044ASP

Sample Matrix: Soil

Analysis requested: EPA 8260B

Laboratory ID #: 74777 Cleanup procedure: N/A Sample collected by:

Date sample collected: Date sample received:

Date extracted: Date analyzed:

Extraction method:

Client 6/2/99

6/8/99 N/A

6/11/99 N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time			X			
Sample analysis time			Χ			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)				<u> </u>	X	

Explanation of non-conforming parameters:

Client Sample ID: CP-4 (36-38) Sample collected by: Client Date sample collected: Chemtech Project #: 12044ASP 6/3/99 Sample Matrix: Date sample received: 6/8/99 Analysis requested: EPA 8260B Date extracted: N/A Laboratory ID #: Date analyzed: 6/11/99 74778 Extraction method: Cleanup procedure: N/A N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time			X			
Sample analysis time			X			
Sample preservation 4°C			X			
Proper analytical method cited 8260					_X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	Х					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration	· .				X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Client Sample ID: CP-4 (invert) Chemtech Project #: 12044ASP

Soil

Analysis requested: EPA 8260B Laboratory ID #: 74779

Cleanup procedure: N/A

Sample Matrix:

Sample collected by:

Date sample collected:

Date sample received: Date extracted:

Date analyzed:

Extraction method:

Client

6/3/99 6/8/99

N/A

N/A

6/16/99

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					Х	
Sample holding time			X			
Sample analysis time			Х			
Sample preservation 4°C			X			·
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					Х	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					Χ	
SMC compound (surrogate) recovery	Ċ				X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Client Sample ID: RDP-1 (36-38) Sample collected by: Client

Chemtech Project #: 12044ASP Date sample collected: 6/2/99

Sample Matrix: Soil Date sample received: 6/8/99
Analysis requested: EPA 8260B Date extracted: N/A
Laboratory ID #: 74780 Date analyzed: 6/17/99

Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time				X		
Sample analysis time			Х			
Sample preservation 4°C			Х			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery	1				X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					Х	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

• Sample holding time exceeded.

Client Sample ID: LP-1 (invert) Sample collected by: Client Date sample collected: Chemtech Project #: 12044ASP 6/7/99 Sample Matrix: Date sample received: 6/9/99 Soil Analysis requested: EPA 8260B Date extracted: N/A Laboratory ID #: Date analyzed: 74892 6/11/99 Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time			X			
Sample analysis time			X			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	- 1
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Client Sample ID: LP-1 (36-38) Sample collected by: Client Chemtech Project #: 12044ASP Date sample collected: 6/7/99 Sample Matrix: Date sample received: 6/9/99 Soil Date extracted: Analysis requested: EPA 8260B N/A Laboratory ID #: Date analyzed: 6/11/99 74893

Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time			Х			
Sample analysis time			X			
Sample preservation 4°C			X			
Proper analytical method cited 8260					Х	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	Х					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					Χ	
SMC compound (surrogate) recovery					X	
GC/MS calibration	,				X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Client Sample ID: LP-2 (36-38) Sample collected by: Client Chemtech Project #: 12044ASP Date sample collected: 6/7/99 Sample Matrix: Soil Date sample received: 6/9/99

Analysis requested: **EPA 8260B** Date extracted: **N/A** Laboratory ID #: **74894** Date analyzed: **6/11/99**

Cleanup procedure: N/A Extraction method: N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample holding time	,		Х			
Sample analysis time			Х			
Sample preservation 4°C			X			
Proper analytical method cited 8260					X	
Column used RTX624					Х	
Quantitation Report					X	ì
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X					
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration					X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					X	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					X	

Explanation of non-conforming parameters:

Client Sample ID: LP-2 (invert) Chemtech Project #: 12044ASP

Sample collected by:

Client

Sample Matrix:

Soil

Date sample collected: Date sample received:

6/10/99 6/11/99

Analysis requested: EPA 8260B

Date extracted:

N/A

Laboratory ID #:

75291

Date analyzed:

6/23/99

Cleanup procedure: N/A

Extraction method:

N/A

EPA 8260B

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody	_	_			X	
Sample holding time			Х			
Sample analysis time			Х			
Sample preservation 4°C			X			
Proper analytical method cited 8260		_			X	
Column used RTX624					X	
Quantitation Report					X	
BFB performance check	X					
GC/MS tuning frequency (24 hr)	X	_				
SMC compound (ISTD) recovery					X	
SMC compound (surrogate) recovery					X	
GC/MS calibration	`.				X	
Method Blank					X	
Five point calibration 5,20,50,100,200					X	
Calibration summary					X	
Surrogate summary					X	
ISTD summary					X	
Injection log sequence					Х	
Matrix spike (MS)					X	
Matrix spike duplicate (MSD)					Χ	

Explanation of non-conforming parameters:

RDP-1 (invert) Client Sample ID: Sample collected by: Client Date sample collected: Chemtech Project #: 12044ASP 6/2/99 Sample Matrix: Date sample received: 6/8/99 Soil Analysis requested: EPA 7471 Date extracted: N/A Laboratory ID #: Date analyzed: 6/13/99 74770 Cleanup procedure: N/A

Total mercury 7471A

Extraction method:

N/A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х		·	
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID:

DW-2 (36-38)

Collected by:

Client

Chemtech Project #: 12044ASP

Date sample collected:

6/2/99

Sample Matrix:

Soil

Date sample received:

6/8/99

Analysis requested: EPA 7471

Date extracted:

N/A

Laboratory ID #:

74771

Date analyzed:

6/13/99

Cleanup procedure: N/A

Extraction method:

N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody ~					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: CP-2 (invert)

Collected By:

Client

Chemtech Project #: 12044ASP

Date sample collected:

6/3/99

Sample Matrix:

Soil

Date sample received:

6/8/99 N/A

Analysis requested: **EPA 7471**Laboratory ID #: **74772**

A 7471 Date extracted: Date analyzed:

6/13/99

Cleanup procedure: N/A

Extraction method:

N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody		- "			X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					Х	

Explanation of non-conforming parameters:

Client Sample ID: CP-3 (36-38) Collected By: Client Chemtech Project #: 12044ASP Date sample collected: 6/3/99

Sample Matrix: Soil Date sample received: 6/8/99

Analysis requested: EPA 7471 Date extracted: N/A Laboratory ID #: 74773 Date analyzed: 6/13/99

Cleanup procedure: N/A Extraction method: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody ~					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					Х	_
Proper analytical method cited 7471A					X	
Method Blank				_	X	
Instrument calibration					Х	
Laboratory control sample					x	_

Explanation of non-conforming parameters:

Client Sample ID: CP-2 (36-38) Collected By: Client Chemtech Project #: 12044ASP Date sample collected: 6/3/99 Date sample received: 6/8/99

Analysis requested: EPA 7471 Date extracted: N/A
Laboratory ID #: 74774 Date analyzed: 6/13/99

Cleanup procedure: N/A Extraction method: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody~					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: CP-3 (invert) Collected By: Client Chemtech Project #: 12044ASP Date sample collected: 6/3/99

Sample Matrix: Soil Date sample received: 6/8/99

Analysis requested: EPA 7471 Date extracted: N/A

Laboratory ID #: 74775 Date analyzed: 6/13/99
Cleanup procedure: N/A Extraction method: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: RDP-2 (36-38) Collected By: Client Chemtech Project #: 12044ASP Date sample collected: 6/2/99 Date sample received: 6/8/99

Analysis requested: EPA 7471 Date extracted: N/A

Laboratory ID #: 74776 Date analyzed: 6/13/99
Cleanup procedure: N/A Extraction method: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody -					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation	_				X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					Х	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID:

RDP-2 (invert)

Collected By:

Client

Chemtech Project #: 12044ASP

Date sample collected:

6/2/99

Sample Matrix:

Soil

Date sample received:

6/8/99

Analysis requested: EPA 7471 Laboratory ID #:

Date extracted:

N/A 6/13/99

Cleanup procedure: N/A

74777

Date analyzed: Extraction method:

N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 7471A					Х	
Method Blank					X	
Instrument calibration		_			X	
Laboratory control sample					Х	

Explanation of non-conforming parameters:

Client Sample ID: CP-4 (36-38) Collected By:

Client

Chemtech Project #: 12044ASP

Date sample collected:

6/3/99

Sample Matrix:

Soil

Date sample received:

Analysis requested: EPA 7471

Date extracted:

6/8/99 N/A

Laboratory ID #:

74778

Date analyzed:

6/13/99

Cleanup procedure: N/A

Extraction method:

N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID:

CP-4 (invert)

Collected By:

Client

Chemtech Project #: 12044ASP

Date sample collected:

Sample Matrix:

Soil

Date sample received:

6/3/99 6/8/99

Analysis requested: EPA 7471

Date extracted:

N/A

Laboratory ID #:

74779

Date analyzed:

6/13/99

Cleanup procedure: N/A

Extraction method:

N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					Х	
Proper analytical method cited 7471A					X	
Method Blank					Х	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: RDP-1 (36-38) Collected By: Client Chemtech Project #: 12044ASP Date sample collected: 6/2/99 Date sample received: 6/8/99

Analysis requested: EPA 7471 Date extracted: N/A
Laboratory ID #: 74780 Date analyzed: 6/13/99

Cleanup procedure: N/A Extraction method: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					Х	
Laboratory control sample					X	

Explanation of non-conforming parameters:

LP-1 (invert) Collected By: Client Client Sample ID: Date sample collected: 6/7/99 Chemtech Project #: 12044ASP Date sample received: Sample Matrix: 6/9/99 Soil Analysis requested: EPA 7471 Date extracted: N/A Laboratory ID #: Date analyzed: 74892 6/13/99 Cleanup procedure: N/A Extraction method: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time	_				X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID:

LP-1 (36-38)

Collected By:

Client

Chemtech Project #: 12044ASP

Date sample collected:

6/7/99

Sample Matrix:

Soil

Date sample received:

6/9/99

Analysis requested: EPA 7471

Date extracted:

N/A

Laboratory ID #:

74893

Date analyzed:

6/13/99

Cleanup procedure: N/A

Extraction method:

N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody ~					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: LP-2 (36-38) Collected By: Client Chemtech Project #: 12044ASP Date sample collected: 6/7/99 Sample Matrix: Soil Date sample received: 6/9/99

Analysis requested: EPA 7471 Date extracted: N/A Laboratory ID #: 74894 Date analyzed: 6/13/99

Cleanup procedure: N/A Extraction method: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody		-			X	
Sample digestion holding time					Х	
Sample analysis time			X			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: LP-2 (invert) Collected By: Client Chemtech Project #: 12044ASP Date sample collected: 6/10/99 Sample Matrix: Date sample received: Soil 6/11/99 Analysis requested: EPA 7471 Date extracted: N/A Laboratory ID #: 75291 Date analyzed: 6/13/99 Cleanup procedure: N/A Extraction method: N/A

Total mercury 7471A

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Χ			
Sample preservation					X	
Proper analytical method cited 7471A					X	
Method Blank					X	
Instrument calibration					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: RDP-1 (invert) Sample collected by: Client Client Project #: 12044ASP Date sample collected: 6/2/99 Sample Matrix: Date sample received: Soil 6/8/99 Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: Date analyzed: 74770 6/17/99 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					Х	
Instrument calibration					Х	
Interference check					Х	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					Х	

Explanation of non-conforming parameters:

Sample collected by: Client Sample ID: DW-2 (36-38) Client Client Project #: Date sample collected: 12044ASP 6/2/99 Sample Matrix: Date sample received: 6/8/99 Soil Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: Date analyzed: 74771 6/17/99 Extraction method: Cleanup procedure: N/A 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Χ			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Sample collected by: Client Sample ID: CP-2 (invert) Client Client Project #: 12044ASP Date sample collected: 6/3/99 Sample Matrix: Date sample received: Soil 6/8/99 Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: Date analyzed: 74772 6/17/99 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					Х	
Duplicate recovery	_				X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: CP-3 (36-38) Sample collected by: Client Date sample collected: Client Project #: 12044ASP 6/3/99 Sample Matrix: Date sample received: 6/8/99 Soil Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #; Date analyzed: 74773 6/17/99 Extraction method: Cleanup procedure: N/A 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody	'				X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation HCL, 4°C					Х	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery		·			X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: CP-2 (36-38) Sample collected by: Client Client Project #: Date sample collected: 12044ASP 6/3/99 Date sample received: Sample Matrix: Soil 6/8/99 Analysis requested: TAL Metals Date digested: 6/14/99 Date analyzed: Laboratory ID #: 6/17/99 74774 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					Х	
Method Blank					Х	
Instrument calibration					Х	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery		·			X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: CP-3 (invert) Sample collected by: Client Client Project #: Date sample collected: 12044ASP 6/3/99 Sample Matrix: Date sample received: 6/8/99 Soil Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: Date analyzed: 74775 6/17/99 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					Х	
Sample analysis time			X			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					Х	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: RDP-2 (36-38) Sample collected by: Client Client Project #: Date sample collected: 12044ASP 6/2/99 Date sample received: Sample Matrix: 6/8/99 Soil Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #; Date analyzed: 74776 6/17/99 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank	,				X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					Х	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Sample collected by: Client Client Sample ID: RDP-2 (invert) Date sample collected: 6/2/99 Client Project #: 12044ASP Date sample received: Sample Matrix: 6/8/99 Soil Analysis requested: TAL Metals Date digested: 6/14/99 Date analyzed: 6/17/99 Laboratory ID #: 74777 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					Х	
Sample digestion holding time					X	
Sample analysis time			X			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Client Sample ID: CP-4 (36-38) Sample collected by: Client Date sample collected: Client Project #: 12044ASP 6/3/99 Date sample received: Sample Matrix: 6/8/99 Soil Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: Date analyzed: 6/17/99 74778 Extraction method: Cleanup procedure: N/A 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					Х	
Sample analysis time			X			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					Х	
Matrix spike summary					Χ	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample		·			X	

Explanation of non-conforming parameters:

Client Sample ID: CP-4 (invert) Sample collected by: Client Client Project #: Date sample collected: 12044ASP 6/3/99 Sample Matrix: Date sample received: Soil 6/8/99 Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: Date analyzed: 74779 6/17/99 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					· ·	X
Sample digestion holding time					X	
Sample analysis time			Х			
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					Х	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					Х	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

. 4

 Laboratory sample number on chain of custody is incorrect, it reads 77779, it should read 74779. Client Sample ID: RDP-1 (36-38) Sample collected by: Client Client Project #. Date sample collected: 12044ASP 6/2/99 Sample Matrix: Date sample received: Soil 6/7/99 Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: Date analyzed: 74780 6/17/99 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					•	X
Sample digestion holding time					Х	
Sample analysis time						Х
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration				_	X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					Х	
Matrix spike recovery					Х	
Laboratory control sample					X	

Explanation of non-conforming parameters:

• ICP data sheet for sample 74780 is missing or illegible.

Sample collected by: Client Sample ID: LP-1 (invert) Client 12044ASP Date sample collected: Client Project #: 6/7/99 Sample Matrix: Date sample received: 6/999 Soil Date digested: Analysis requested: TAL Metals 6/14/99 Date analyzed: Laboratory ID #: 74892 6/17/99 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time					Х	
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

Sample collected by: Client Sample ID: LP-1 (36-38) Client Client Project #: Date sample collected: 12044ASP 6/7/99 Sample Matrix: Date sample received: Soil 6/9/99 Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: 74893 Date analyzed: 6/17/99 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time					X	
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					X	
Method Blank					X	
Instrument calibration					Х	
Interference check					Х	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					χ	

Explanation of non-conforming parameters:

Client Sample ID: Sample collected by: LP_2 (36-38) Client Client Project #: Date sample collected: 12044ASP 6/7/99 Sample Matrix: Date sample received: Soil 6/9/99 Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: 74894 Date analyzed: 6/17/99 Extraction method: Cleanup procedure: N/A 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time					X	
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A					Х	
Method Blank					X	
Instrument calibration					X	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					X	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters:

LP-2 (invert) Sample collected by: Client Client Sample ID: Client Project #: 12044ASP Date sample collected: 6/10/99 Date sample received: Sample Matrix: Soil 6/11/99 Analysis requested: TAL Metals Date digested: 6/14/99 Laboratory ID #: Date analyzed: 6/17/99 75291 Cleanup procedure: N/A Extraction method: 3050A

TAL Metals

Item	Pass	Fail	Met	Not met	Acceptable	Not acceptable
Sample chain of custody					X	
Sample digestion holding time					X	
Sample analysis time					X	
Sample preservation HCL, 4°C					X	
Proper analytical method cited 6010A		_			X	
Method Blank					X	
Instrument calibration					Х	
Interference check					X	
Matrix spike summary					X	
Duplicate recovery					Х	
Matrix spike recovery					X	
Laboratory control sample					X	

Explanation of non-conforming parameters: